Digital TU Graz – Researcher-led FAIR services

Sarah Stryeck, Stefan Reichmann, Thomas Klebel, Ilire Hasani-Mavriqi, Tony Ross-Hellauer
Open and Reproducible Research Group at Institute of Interactive Systems and Data Science, TU Graz, Austria

Abstract

• Researchers’ perspectives on Research Data Management (RDM) are diverse and often discipline specific, but there are many issues which occur across contexts.
• TU Graz’s researcher-led approach to implementing FAIR data services
  (i) enable FAIR data through efficient research data management
  (ii) develop state-of-the-art disciplinary and cross-disciplinary tools and services and
  (iii) boost the impact and reputation of TU Graz by increasing international visibility and re-usability of research.
• knowledge-gathering (survey/interviews) and policy development to the conception and implementation of open source tools including InvenioRDM and CyVerse.

RDM Faculty Survey at TU Graz (N=259)
- Attitudes/practices of RDM, data sharing, and reuse
- Needs and barriers; guidance for implementation

How frequently do you/does your group share data...

RDM Faculty Interviews (N=17)
- Lots of variation between faculties and institutes (research groups) with respect to data intensity, data collection and analysis, the extent to which data are archived and how, and the significance accorded to data management in different disciplines.
- Effort that needs to be invested into gathering/processing the data predicts propensity to archive and share data
- The degree of variation is founded, among other things, in the historical origins of disciplinary boundaries now represented in departmental structures.
- Variation complicates one-size-fits-all RDM solutions
- The value ascribed to data in a given field can be explained by reference to three factors: Intensity (amount and complexity of data), Resources that go into Data Handling, and Research Style (What is the aim of the field?)

SAMPLE:
- N=17 staff members from Civil/Mechanical/Electrical/Biomedical Engineering, Technical Chemistry, and Computer Science
  - 7 Full Profs, 4 Assoc. Profs, 3 Senior Scientists, 2 PhD Candidates, 1 SysAdmin
  - 700 mins of recorded materials

RDM policy development
Bottom-up approach with working group

Framework RDM Policy
Roles, responsibilities, rights
university level (ZID, Library, F&T Haus, Faculties)
Rights ownership, Intellectual property rights, Austrian Universities Act (UG 2002)

Faculty-specific implementation strategies

InvenioRDM repository
Generation
Re-usage
Processing
Preservation
Analysis

Discipline-specific solutions:
CyVerse Austria
- User requirements in Life Sciences
- Vision: (inter)national, cross-disciplinary, industry
- Training support & sustainability plan
- Life cycle of research data

References:
https://inveniosoftware.org/blog/2019-04-29-rdm/
https://home.cern/
https://www.cyverse.org/