Research Data Management (RDM): Policy and Course Development at the University of Twente, the Netherlands

TAKEAWAY MESSAGE

Data policy is much about responsibilities: The creation of RDM awareness and knowledge needs to include these responsibilities.

Implementing data policy on different levels within the university allows for the development of a discipline-specific RDM course,

of which the content and structure are jointly organized by the University Library (UL), faculties and research institutes.

SUMMARY

Data-policy development and implementation at the University of Twente
Scientific disciplines should determine the best way to manage research data in their field, but the free availability of research data should be standard.

At the University of Twente, managing research data is the shared responsibility of the researcher and the organization(s) affiliated with the research, namely research group, research institute, faculty, and university.
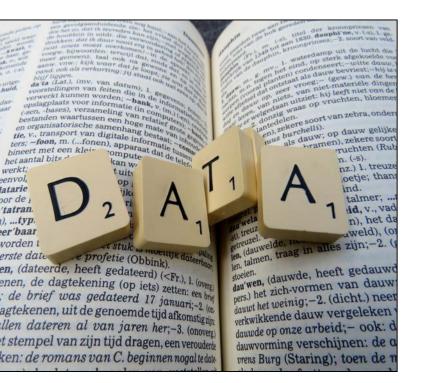
In light of this shared responsibility for RDM, the formulation and implementation of faculty-level data policies is initiated and organized by each faculty's management.

RDM-course development at the University of Twente
The University Library developed a general RDM course for PhD students, in which they write their own DMP that is reviewed by the UL information specialist of their faculty. The information specialist discusses the reviewed DMP with the PhD student and his/her supervisor, and raises awareness of their shared responsibility for RDM. The UL's next step is developing discipline-specific RDM courses with faculties and research institutes.

RDM-COURSE DEVELOPMENT AT THE UNIVERSITY OF TWENTE

The University Library developed a general course on Research Data Management for PhD students.
This course includes:
1. General information about RDM, and specific information about RDM at the University of Twente, based on the university's data policy, with special attention to the shared responsibility mentioned in this policy.
2. The workshop *How to write your own Data Management Plan (DMP)*.

After the workshop, PhD students write their own DMP for their doctoral research. Each PhD student's DMP is reviewed by the UL information specialist of his/her own faculty. The UL information specialist discusses each reviewed DMP with the PhD student in question and his/her supervisor, while focusing on DMP content as well as on the awareness of their shared responsibility concerning RDM and DMP.

There is a structural need for an RDM course for supervisors of (PhD) students. The general RDM course needs to evolve into a comprehensive course that comprises discipline-specific elements of both RDM and other data-related topics, such as data analyses and data visualization. The UL will develop these discipline-specific RDM courses with faculties and research institutes.

FOOD FOR THOUGHT

To what extent can individual researchers be held responsible for RDM?

FACULTIES
• Behavioural, Management & Social Sciences
• Electrical Engineering, Mathematics and Computer Science
• Engineering Technology
• Geo-Information Science and Earth Observation
• Science and Technology

SCIENTIFIC OUTPUT in 2014	
Total publications	3.098
Refereed publications	2.703
Spin-off companies since 1984	± 1.000

PROGRAMMES in 2016	Numbers in 2014	
19 Bachelor of Science programmes	Students: 5,627
37 Master of Science programmes	Students: 3,568
20 Doctoral programmes	Degrees awarded: 244

UNIVERSITY OF TWENTE.
HIGH TECH, HUMAN TOUCH

Founded in 1961

University Library ± 26 FTE

± 3,000 scientists and support staff

± 9,000 students

UNIVERSITY OF TWENTE.

DATA-POLICY DEVELOPMENT AT THE UNIVERSITY OF TWENTE

Step 1 | Data management on governance agenda
Based on the Netherlands Royal Academy of Arts and Sciences' (KNAW) statement that scientific disciplines should determine the best way to manage research data in their field, and the free availability of research data must be standard, the University Library wrote the first draft of the University of Twente data policy that focused on awareness, policy and rules, infrastructure, and support. Shortly after, the Executive Board formally requested the University Library to write the University of Twente data policy.

Step 2 | Data policy on university level
Fifteen professors from different scientific disciplines were interviewed about data-management practice and policy. Based on the university data policy draft and to create awareness and commitment, the rector of the university, supported by the University Librarian, organized discussion meetings with faculty professors. The final version of the university data policy was accepted by the Executive Board in July 2015.

Step 3 | Data policy on faculty level
Shortly after, the deans and scientific directors decided to initiate the formulation of faculty-specific data policies. UL information specialists in the faculties are placing it on the agenda and providing support. Two faculties now have their own data policy.

DATA-POLICY IMPLEMENTATION IN A FACULTY

The Faculty of Engineering Technology has a data policy that formulates the minimum requirements for proper RDM, both on the level of the faculty and of each research group.

For the formulation and implementation of data policy on research-group level, a pilot project started with five groups (one per discipline). Two researchers per group wrote a DMP for their research project. These DMPs were reviewed by UL and IT, and discussed with the researcher and his/her supervisor. Based on the DMPs and the faculty's data policy, one of the supervisors or the head of the research group formulated a research-group data policy. In their review and discussion of these policies, UL and IT specifically paid attention to responsibilities.

The research-group data policies were presented, compared, and discussed in a meeting with the five pilot groups, in presence of the dean of the Faculty of Engineering Technology. The dean has now urged the remaining (± 25) research groups of the faculty to follow in the footsteps of the five pilot groups and write their own research-group data policy within the next two months. Some of these groups work closely together and may develop a joint group policy. All the research-group policies will be reviewed by the University Library and discussed with the groups.

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Library, ICT Services & Archive

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