

Project “UNEKE”: composing storage infrastructures for research data a roadmap for higher education institutions

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While various scientific communities started to develop and establish mature infrastructures, (e.g. repositories) to support researchers' data management, other research areas are still facing the challenge of establishing suitable infrastructures. Thus, researchers in these disciplines rely on technical opportunities offered by their local research institution (Becker et al., 2012). In order to support researchers' adequate research data management, research institutions carried out surveys to investigate researcher's requirements. While most of these investigations are often restricted to individual institutes or have small sample sizes (Rudolph et al., 2015), literature could show, that research institutions are facing two types of barriers, that must be taken into account when establishing suitable infrastructures. Those are technical barriers (e.g. infrastructure, security) as well as non-technical barriers (e.g. ethics, management) (Wilms et al., 2018).

Therefore, we present the results of the research project UNEKE, which aims to find out more about the technical and non-technical requirements of several research areas. In this work, we present the results of a qualitative research investigation including focus group interviews of 91 researchers from different research areas. For this exploratory, qualitative approach, 12 focus group workshops with 91 employees from University Duisburg-Essen and RWTH Aachen University were conducted in late 2018.

This allowed us to gain insights into attitudes, thoughts and experiences that researchers hold about RDM and how this affects daily conduct with RDM tools and infrastructures. We expected that research data itself and its handling might be highly specific for different research areas. In order to monitor disciplinary differences, the participants were divided into groups of researchers from natural sciences, engineering, life sciences, humanities and social sciences. These focus groups were conducted at both universities and structured into an introduction and following distribution into smaller subgroups of 2-4 researchers. In these subgroups the question: “What needs should be considered when developing and introducing an infrastructure for research data management?” was discussed. Results of these discussions were then compiled, presented to, and discussed by the entire group. After the discussion, the group structured the topics to create a thematic mapping. These mappings build the base for the categorical system that is being developed within UNEKE.

First results show that requirements are field specific and that the set of categories resulting from the analysis is similar at both participating universities, thus indicating its validity. While the field specific requirements are often technical, non-technical ones such as governance guidelines and training show significant overlap.

Becker, J., Knackstedt, R., Lis, L., Stein, A. and Steinhorst, M. (2012) ‘Research Portals: Status Quo and Improvement Perspectives’, *International Journal of Knowledge Management*, 8(3), pp. 27–46.

Rudolph, D., Thoring, A. and Vogl, R. (2015) ‘Research Data Management: Wishful Thinking or Reality?’, *PIK - Praxis der Informationsverarbeitung und Kommunikation*, 38(3–4), pp. 113–120.

Wilms, K., Stieglitz, S., Buchholz, A., Vogl, R. and Rudolph, D. (2018) ‘Do Researchers Dream of Research Data Management?’, *Proceedings of the 51st Hawaii International Conference on System Sciences*, pp. 4411–4420.

Type of abstract

Presentation

Summary

This work presents the ongoing work of the UNEKE project group, which aims to create and operationalize a roadmap to identify requirements and needs for local research repositories as a tool for Higher Education Institutions (HEIs). The roadmap provides information, guidance and practical recommendations for HEI looking for a local solution in form of a research data repository. To create this toolbox UNEKE employs quantitative and qualitative methods. In this work we present methods and results of our qualitative focus groups with 91 researchers from two major German universities.

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