How to Ensure Replicability and Understandability of Social Research
SFB882 Project INF

Within social science the issue of sustainable data provision is getting more and more attention either from funding agencies and researchers. If data from research projects are available for the scientific community not only a replication of former results is possible but also the application of new research questions. This paper is a contribution to the technical and methodological discussion of social science infrastructure(s). The main question is how to manage data in a way which meets the increasing demand for replication and secondary analysis.

In the first part, we present our virtual research environment (VRE), which provides both a generic work platform and a project-specific research platform. The work platform bundles IT resources by bringing together various tools for administration, project management, and time and location independent collaboration in a single environment adapted to researchers' specific work processes. It integrates existing IT services of the university such as authentication and shared storage. The research component combines data management with further developments of social science methodologies. It provides services for archiving and re-use of data sets and is responsible for the infrastructural and methodological coordination of the data documentation.

In the second part, we mainly focus on data management aspects, especially on the unification of varying documentation requirements and needs which came up across projects. While the aim of documenting quantitative research processes is to ensure replicability, the aim of qualitative projects is to maintain understandability and the informative value of research data. The quality criterion of understandability is central within social research and depends on the documentation of the entire research process. There are three key demands for documentation: It should make research understandable (1) for the single researcher (over a long-term period), (2) within a research group, and (3) for third parties who were not part of the research process. The informative value of research data depends on scope of documentation. Therefore, it is helpful to study practices of the social research itself to ensure an empirical verified scheme of documentation.

We introduce our approach and the resulting documentation scheme for qualitative and quantitative social research within the SFB 882. This scheme considers specific requirements of research projects within the SFB, such as specific methods of research (e.g. panel analysis, structural equation modeling, ethnography, and interview research), project specific work flows, and requirements of longitudinal data collection.
Our approach is to combine various data management strategies into a standardized data documentation regardless of the specific research method used.