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Integrating Multiple Views in A Code System

Summary

In requirements engineering, business analysts create a variety of artifacts. Two key artifacts are the natural-language requirements specification and the domain model. The QDAcity RE method derives these artifacts from a set of inputs from stakeholders, for example, interviews or workshop summaries. For reasons of efficiency, we would like to find an intermediate representation as a result of Qualitative Data Analysis applied to the original input, from which both the specification and the domain model can be derived. One working hypothesis is that these two artifacts are extensions of views on the code system developed using QDA. Through the exploratory application of the QDAcity RE method this thesis will derive both artifacts from a single code system, in an iterative fashion. The project in which the method will be applied is the creation of the QDAcity tool, a cloud solution for qualitative data analysis that will be developed by the open source research group.

This thesis will provide four deliverables:

1. A conceptualization of how the code system has to be adapted to feature and unify different views.
2. A theory on how social scientists perform theory building with a focus on how coding is performed.
3. A natural language requirements specification for QDAcity.
4. A domain model describing qualitative research and coding using CAQDAS.

Work Results

- Literature review
    - Qualitative Data Analysis in particular CAQDAS packages
    - Requirements Engineering
- Research approach and execution
    - After the theoretical literature review state of the art tools shall be evaluated for functionality
    - Stakeholders within social science as well as software engineering have to be identified and interviewed.
    - Coding interviews and generate a theory
    - Derive a NL spec. and a domain model from the analysis
- Research results
    - Coded interviews

- A domain model and NL requirements specification
- A method description for integrating multiple views in a theory

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