

Master Thesis:

"Development of a User Interface for an Existing Spatial Linked Data Approach for Dialect Data"

Georg Weinberger

Institute of Geodesy –
Working Group Geoinformation
Graz University of Technology



Topic of thesis



- Part of the dialect data from the "Database of Bavarian
 Dialects in Austria" (dboe@ema) are stored as linked data in a
 database and can be queried from there
- Problem: Querying linked data can be complicated (query language SPARQL, unknown ontology, ...)
- Therefore, a user interface for this database will be created in this project
- This means that users no longer have to write queries by themselves, but can still query and visualize data from the database using the user interface

Topic of thesis



- The advantage is that even users who have little or no experience with databases or query languages can use this software
- The focus should be on the spatial representation of dialectologically relevant data

Data Schema



The following figure shows the simplified data schema for the database

Data schema "UI for Dialect Data" Dialect Word Record Meaning Voucher Question Source Questionnaire Location City Person Region Municipality

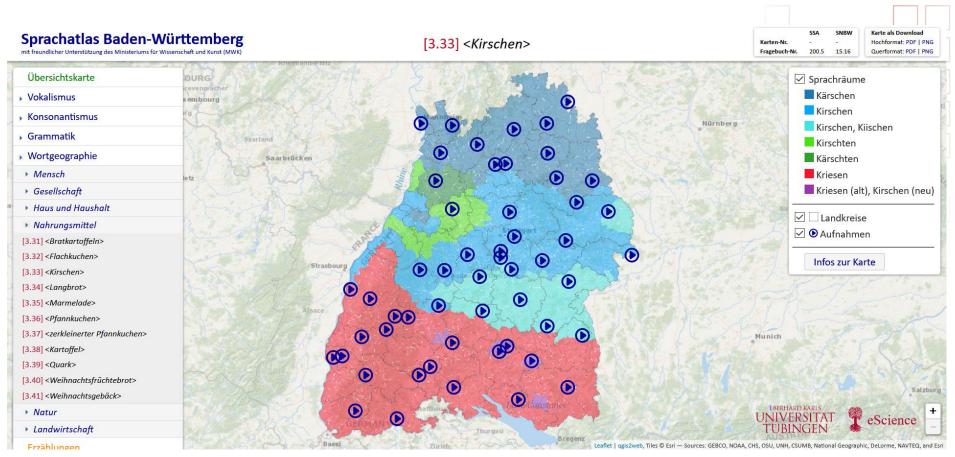


The following two examples show how such a user interface could look like

- Linguistic Atlas of Baden-Württemberg
- German Linguistic Atlas

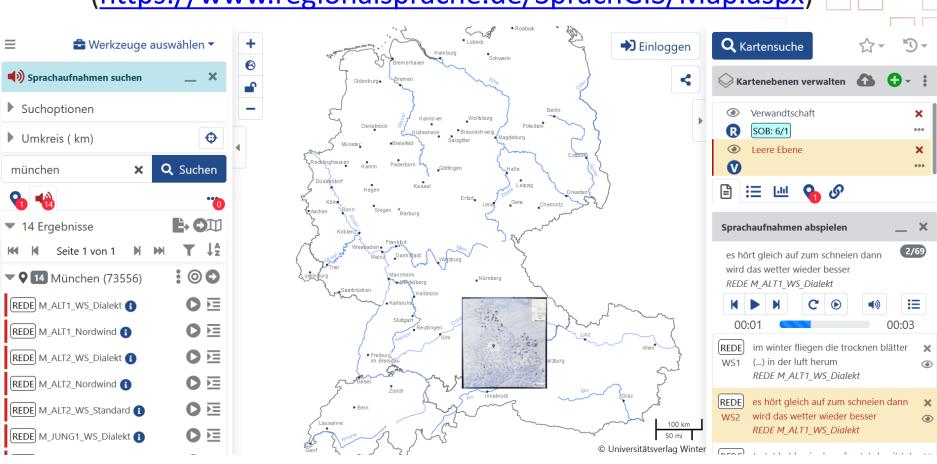


Linguistic Atlas of Baden-Württemberg (https://escience-center.uni-tuebingen.de/escience/sprachatlas/)





 German Linguistic Atlas (https://www.regionalsprache.de/SprachGIS/Map.aspx)





- The linguistic atlas of Baden-Württemberg shows dialect words and their distribution in Baden-Württemberg in Germany. In addition, voice recordings of the respective expressions can be played
- Using the German Linguistic Atlas different language maps of German-speaking areas can be displayed. In addition, both voice recordings and literature can be searched

Requirements Analysis



- The first step before developing the software is the requirements analysis
- This analysis determines which functions or properties the user interface should have
- By involving the users or stakeholders in this development process better results can be achieved

Requirements Analysis



- "How can data from the field of linguistics or dialectology be visualized in a user interface?"
- My questions regarding this would be...
 - Which data are relevant for this question?
 - Which combinations of data make sense to be displayed?
 - What is done if the desired data is found?
 - What analyzes are made with the data?
 - Will the data be processed afterwards?
 - What other features should a UI for dialectology include?
 - How will the tool be used later on?