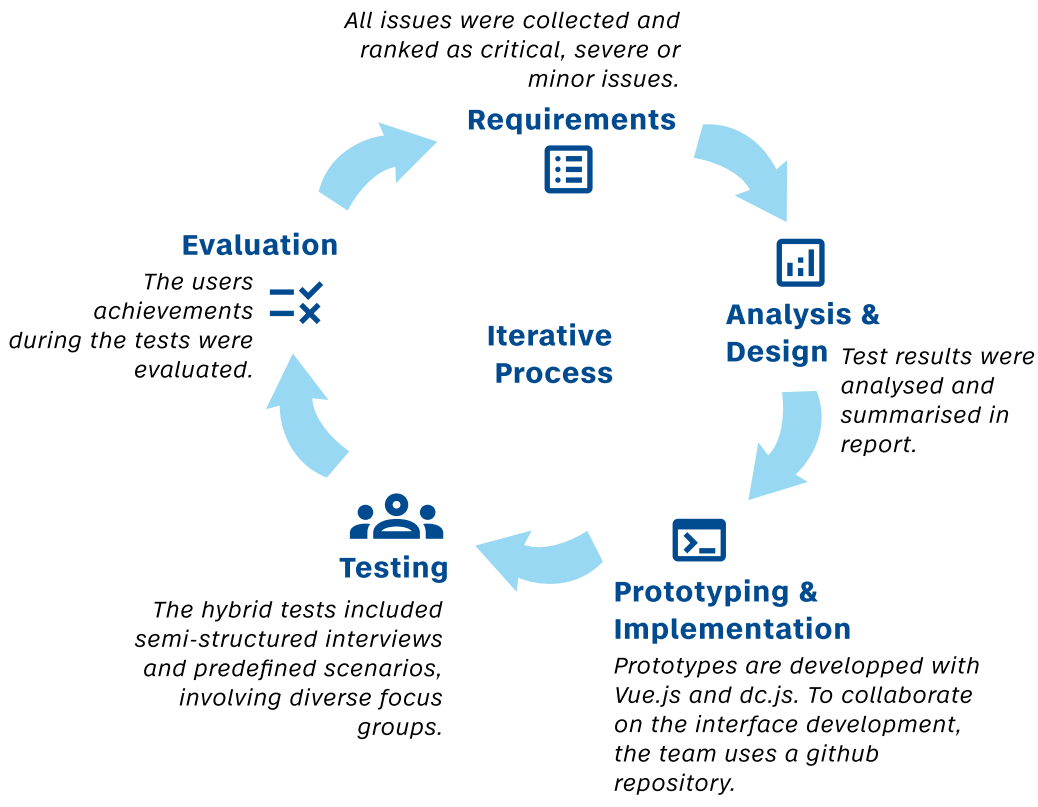
User-centered Process for Data Exploration in German Literature Studies

Working Group *Forschungsplattform Literarisches Feld DDR*

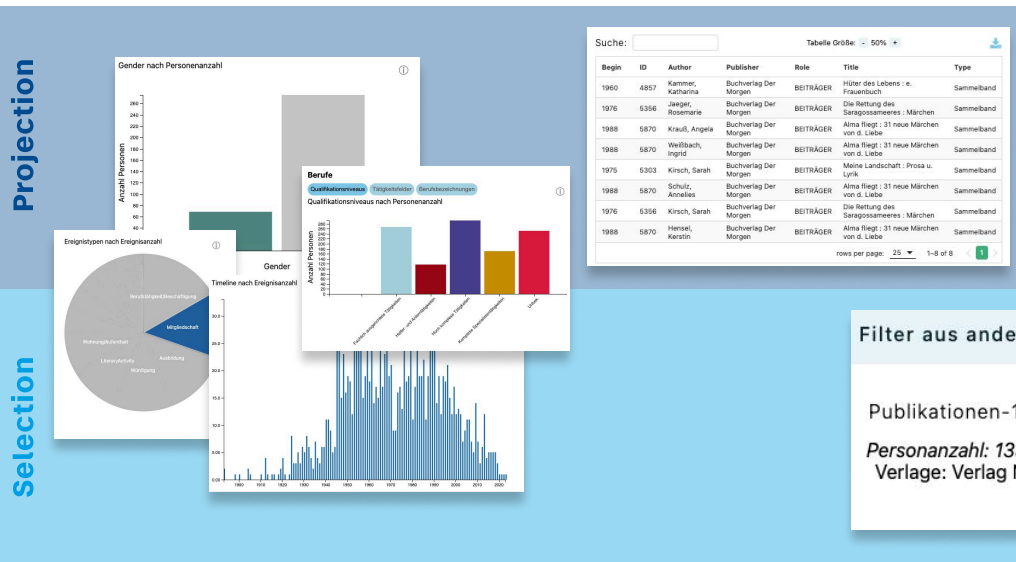
Our project follows the objective of creating a database of bio-bibliographic data representing the biographies and works of all authors of literary works in the GDR, including all literary genres and levels. As actors in this literary field a total of approximately 3,400 persons were identified. As a pilot project, a biographical data model and the technical infrastructure were developed to facilitate data collection, storage and analysis of the data. Detailed biographical data of 344 students who studied at the *Literaturinstitut "Johannes R. Becher"* in Leipzig were collected as an initial sample.

In order to allow access to the collected data for non technical users, an explorative interface for data access is being developed, following a user-centered approach. Our interface employs Shneiderman's Information Seeking Mantra and offers an interactive dashboard as an overview for data exploration. By using charts as filters and by combining various instances of the dashboard, complex selection constraints can be expressed. Users can drill down into specific data points, the detailed properties of which will be displayed in a table view.

The different evolution steps of this interface exhibit relevant findings about the particular requirements of researchers from literary studies when it comes to using digital tools within their research domain.



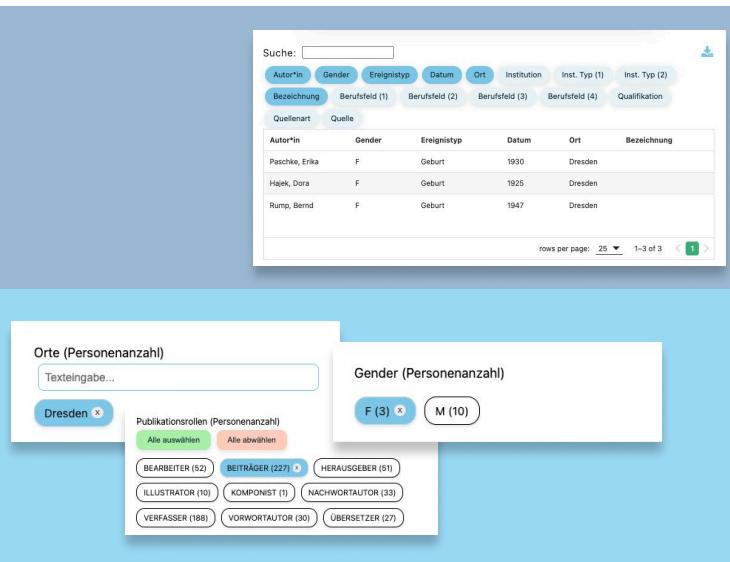
First Prototype



Key findings from the first test indicated that while the dashboard view was considered innovative, using charts for filtering data appeared not entirely intuitive to our primary user group — literature studies researchers. Users preferred more traditional input methods, such as drop-down lists or autocomplete text inputs. Users also exposed strong interest in interacting with the provided — textual — table view displaying the filtered data. These preferences align with their familiarity with Online Public Access Catalog (OPAC) search interfaces and textual query formulation.

The initial prototype thus highlighted the need for an interface that would better meet users' preferences regarding the interface modality. To achieve this, we integrated textual input options. Moreover, we enhanced the table view of filtered data by allowing to individually select the properties for data projection. In order to obtain a clear statement on the desired interface modalities, all charts were removed from the tested prototype. The interface thus provides a strict separation between data selection and projection.

Second Prototype



Key findings from the second test were that the textual modality was appreciated, but users particularly missed the ability to immediately perceive data quantities and ratios. Users expressed a desire to individually choose between textual and visual selection and projection options. By combining these options in the future, we aim to create a flexible interface that can adapt to various user experiences and research needs.

Our observations underscore the challenges of interdisciplinary Digital Humanities projects and highlight the need for tools that adapt to users' varying levels of familiarity and to their preferences regarding interface modalities. We expect that further iterations of the employed user-driven design process will facilitate even more comprehensive and insightful research regarding crucial aspects of humanists' usage of digital interfaces.

Shneiderman, B. (1996): The Eyes Have It: A Task by Data Type Taxonomy for Information Visualizations. In: *Proceedings of the IEEE Symposium on Visual Languages*: 336-343, Washington. IEEE Computer Society Press.

MORE ABOUT THE PROJECT:
https://ddr-literatur.de/

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This poster is mainly based on: Axelle Lecroq, Omar Alhasan und Jörn Kreutel. Explorative interface for accessing a bio-bibliographical data set of GDR authors. Poster presented at DHd 2025 (digital humanities im deutschsprachigen raum), March 3-7, 2025, in Bielefeld. https://zenodo.org/records/14944619