## CLSINFRA COMPUTATIONAL LITERARY STUDIES



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## Austrian Centre for Digital Humanities and Cultural Heritage (ACDH-CH)

The Austrian Centre for Digital Humanities & Cultural Heritage (ACDH-CH) was founded in 2015 with the express goal to foster the use of digital tools and methods in the humanities. The ACDH-CH pursues a dual agenda of conducting digitally enabled research and providing technical expertise and support to the research communities in digital humanities both on the national and international level. Conducting numerous outreach activities, it also promotes knowledge sharing and the build-up of social infrastructures.

The centre is coordinating both ESFRI research infrastructure consortia in the humanities (CLARIN and DARIAH) in Austria. It has been involved in numerous national and international projects (e.g., SSHOC, ELEXIS, PARTHENOS, dariahTeach, EGI-Engage, CLARIN+, Humanities-at-Scale).

## Existing tools, services and expertise

The ACDH-CH offers a broad portfolio of services to support the application of digital methods and tools throughout the whole life cycle of a research project (<u>https://www.oeaw.ac.at/acdh/what-we-offer</u>): **Digitization services** - consultation with regards to digitization planning (timeline, scan parameters, formats, workflows, OCR, preservation). **Data modelling and curation** - support in collecting, organizing, and accessing large quantities of data, modelling databases and text encoding, measures for enhancing the interoperability of data by employing semantic web technologies, and preparation of the data for long term archiving in **ARCHE**, a certified repository for humanities research data (<u>https://arche.acdh.oeaw.ac.at/</u>). **Data application development** aims to support all phases of the research process: data import and export, data management and curation, format conversions, data analysis, processing, and enrichment (especially NLP), indexing and searching, exploration and browsing, online viewing and presentation, interactive visualization of geospatial data on geographic maps (GIS), and data retrieval.

## Aim of the fellowship

This fellowship particularly targets "non-digital" literary scholars who would like to learn how to apply digital humanities methods, standards, and best practices through a smaller project. Thus, fellows may apply with a genuine scholarly research question and develop the digital approach/methodology together with the ACDH-CH team. Of course, also scholars with digital experience are welcome to apply.

ACDH-CH especially encourages applications with a research focus on Austrian literature, ideally combined with methodological questions dealing with combination of textual data and structured semantic data (LOD) as well as exploring transformation paths and interoperability challenges when applying tools and services of the CLS ecosystem on the heterogeneous datasets. From this general objective, the following three main task areas emerge, applicable in different combinations depending on the specific needs, methodological approach and focus of the proposed project:

**Digital Editions**: annotation of literary texts with TEI-XML, ingest preparation for archiving in ARCHE and generating a HTML presentation using XSLT transformations;

**Natural Language Processing** (NLP): tokenization, lemmatization, part-of-speech (POS) tagging, information extraction with *Named Entity Recognition* (NER), using existing tools such as <u>spaCy</u>;

Semantic Web Technologies: modelling of structured semantic information using established ontologies and controlled vocabularies; entity linking, i.e. identification of named entities against external reference resources (like <u>WikiData</u>, <u>GND</u> or <u>GeoNames</u>)

