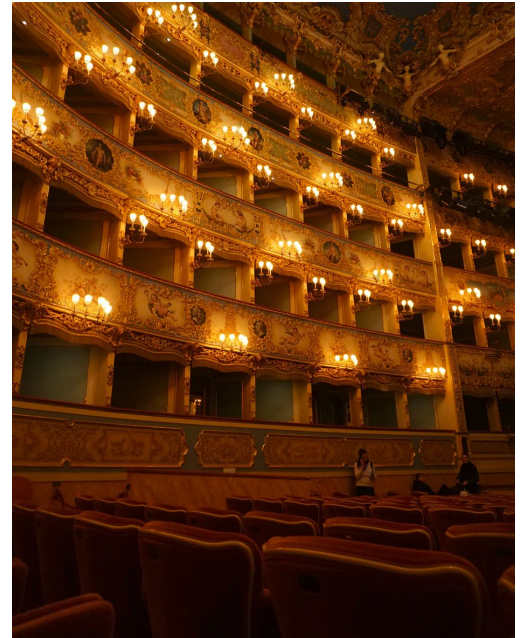


Knowledge Graph Integration of Heterogeneous Historical Theatre Data

*A thesis with a purpose: help us to bring more meaning into
cultural heritage data*

Cultural heritage data have become increasingly important in recent years as archives have been digitizing and storing large amounts of objects, documents and memories in all varieties of formats and sizes. Now this data is waiting to be (re)discovered, researched and experienced by many scientific fields interdisciplinarily as well as by the general public. Part of this important cultural heritage is theatre. Historical theatre data can include photographs of past performances, backstage moments, and buildings, video recordings of a theatre's interior design, building plans, and administrative documents on persons and organizations involved. Knowledge Graphs (KG) can be used to bring these historical theatre data back to life by making them findable, accessible, interoperable and reusable (FAIR) [1] and by interconnecting them external KGs such as Wikidata [2], DBpedia [3] or the German Authority files [4].



In this thesis, the problems of integrating heterogeneous multimedia data into an existing KG and interconnecting these data with additional sources will be investigated. The use case for this thesis is Linked Stage Graph [5] which contains data about Stuttgart State Theatres and provides a SPARQL endpoint as well as means of visual exploration. As part of the thesis, the existing graph will be extended by additional data of Saarland State Theatres. Furthermore, the graph will be connected to external resources, e.g. Wikidata and DBpedia in order to be queried and explored.

This thesis will be supervised by **Prof. Dr. Harald Sack, Information Service Engineering at Institute AIFB, KIT, in collaboration with FIZ Karlsruhe.**

[1] <https://www.go-fair.org/fair-principles/>

[2] <https://www.wikidata.org/>

[3] <https://dbpedia.org>

[4] https://www.dnb.de/EN/Professionell/Standardisierung/GND/gnd_node.html

[5] <http://slod.fiz-karlsruhe.de/>



Which prerequisites should you have?

- Good programming skills in Python
- Interest in Machine Learning approaches
- Interest in Knowledge Graphs

Contact person:
Tabea Tietz
tabea.tietz@kit.edu
tabea.tietz@fiz-karlsruhe.de