

Integrating quantitative data into a labor market knowledge graph for graph learning

Research Question:	How can we efficiently enrich a labor market knowledge graph with quantitative data and use it to train graph learning approaches?
Background:	The German Labor Market Ontology (GLMO) stores information on occupations and training. BIBB has some quantitative data, including the job flexibility matrix and others. The first task is to enrich the knowledge graph (stored in the Neo4j database) with this data and to select and train graph learning approaches by selecting feasible real-world questions to predict aspects of the labor market.
Data:	<i>German texts!</i> • GLMO • BIBB internal quantitative data
Literature:	 D. Martić, A. Fischer, J. Dörpinghaus. Extending the German Labor Market Ontology with Online Data. <i>INFORMATIK 2024, Lecture Notes in Informatics (LNI)</i> , Gesellschaft für Informatik, p. 2013-2024.
Requirements:	Coding (Python); Databases (SQL); Graph databses (Neo4j); Knowledge of the German Labor Market
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