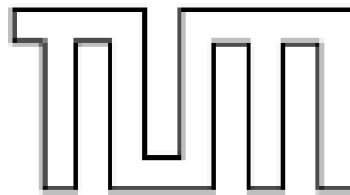


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Supporting the execution of knowledge  
intensive processes by means of expert and  
best-practice mediation

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# Abstract

Especially in the modern service economy enterprises face an increased complexity of processes and the requirement for advanced human knowledge. The relevance of **intellectual assets** as a success factor of profit and non-profit organizations is widely recognized and stressed in several publications.

**This thesis investigates and develops means for supporting collaborating users in knowledge intense processes.** Focal points of support are provision of expert mediation functionality, as well as means for computing best-practice recommendations. Expert mediation is accomplished by modeling process specific knowledge demands, which are then matched with expert profiles. For population of expert profiles, we introduce a novel methodology based on collaborative user modeling in terms of *social profiles*. We further develop means for specifying context specific knowledge requirements. We therefore introduce our approach of semantic enrichment of a priori modeled process models by collaborative tagging. Major contribution is the post-processing of the gathered data. For this purpose means of adjacent research fields (such as natural language processing and clustering) are applied. The resulting process models allow for accomplishing enhanced information retrieval, as a fundamental precondition for computing best-practices. For mediation and matchmaking we apply a highly fault tolerant approach for querying the process models as well as the expert profiles, by successively computing a numerical (and hence rankable) similarity measure comparing actual data sets and the query. The user can hence be provided with expert and further best-practice recommendations (depending on the query scenario).

In the final part we consolidate our findings and motivate an integration of our techniques in existing frameworks. The concepts developed in this work have been prototypically implemented; this thesis closes with a demonstration of the computed output data.

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