

# ENHANCING LITERATURE REVIEW METHODS - TOWARDS MORE EFFICIENT LITERATURE RESEARCH WITH LATENT SEMANTIC INDEXING

*Prototype*

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## Abstract

*Nowadays, the facilitated access to increasing amounts of information and scientific resources means that more and more effort is required to conduct comprehensive literature reviews. Literature search, as a fundamental, complex, and time-consuming step in every literature research process, is part of many established scientific methods. However, it is still predominantly supported by search techniques based on conventional term-matching methods. We address the lack of semantic approaches in this context by proposing an enhancement of established literature review methods. For this purpose, we followed design science research (DSR) principles in order to develop artifacts and implement a prototype of our Tool for Semantic Indexing and Similarity Queries (TSISQ) based on the core concepts of latent semantic indexing (LSI). Its applicability is demonstrated and evaluated in a case study. Results indicate that the presented approach can help save valuable time in finding basic literature in a desired research field or increasing the comprehensiveness of a review by efficiently identifying sources that otherwise would not have been taken into account. The target audience for our findings includes researchers who need to efficiently gain an overview of a specific research field, deepen their knowledge or refine the theoretical foundations of their research.*

*Keywords: Literature review, literature research, latent semantic indexing (LSI), information retrieval, design science research (DSR).*