Konferenzbeitrag

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Representing Ontologies in Multiple Domain Matrices

Abstract:

Structural Complexity Management (SICM) is an approach to handle complex systems. The amount of time spent for the modeling of the necessary Multiple Domain Matrices (MDM) is high due to extensive information acquisition procedures such as individual workshops. The use of data which is already available within companies is an approach to shorten the information acquisition phase. Due to their broad use in industry for knowledge capture, ontologies may serve as a basis for MDM modeling and thereby for complexity management. This paper presents a method for the representation of ontologies using the Web Ontology Language (OWL) syntax in MDMs. A tool for the automated transformation of the OWL code into code usable for existing MDM software solutions is introduced to facilitate the transformation of ontologies into MDMs. This is followed by an exemplary application of the transformation method implemented in the tool.

Stichworte:

Structural Complexity Management; MDM; information acquisition; ontology; model transformation
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