

Bridging the Gap Between Human Thinking and Machine Processing in Developing and Maintaining Domain Knowledge

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Abstract. This paper is concerned with the gap between human and machine thinking in the area of the development and maintenance of domain knowledge; and how the differences in the way humans and machines think or process information can be exploited for the benefit of the domains in question. Looking in turn at mind mapping as an effective human thinking technique and ontology as a machine readable standard, the paper will discuss the role of mind mapping in the Requirements Engineering process in general; and provide some insight into the development of the OntoREM-MindMapper tool that will serve to support the Ontology-driven Requirements Engineering Methodology (OntoREM) by enabling controlled transfers of domain knowledge between mind maps and ontologies.