

Can Knowledge be an Immutable Data Type?

The Limits of the Model-Theoretic Approach

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Abstract

Knowledge Management has become a sexy topic in information technology circles. Unlike its close cousin Data Management however, Knowledge Management is at present largely devoid of any philosophical foundation. Much of the work carried out within this field I argue relies upon a computational method of representation that falls far short of being capable of adequately representing knowledge. This paper examines the semantic or model-theoretic view that emerged as a result of work by Tarski and Carnap amongst others subsequently laying the foundations of modern database theory. Attempts to “model knowledge” under this foundational framework are fated to treat knowledge artifacts (if indeed we admit such things into our ontology) as immutable data types. We examine the validity of this approach and examine some of the reasons why it is inadequate for knowledge representation.