Ontology-Based Knowledge Map

Enabling Referential Navigation between Knowledge

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Abstract. A knowledge map describes the network of related knowledge in the form of a diagram, and therefore underpins the structure of knowledge categories by defining the relationship of the referential navigation between knowledge. The concept of referential navigation means the function of cross-reference between related knowledge, which can be exhibited as one piece of knowledge becomes to be utilized after related the other knowledge has been activated. For this reason, building a knowledge map based on the ontology technology has been emphasized to transplant the features of the cross-referential knowledge network into a knowledge map. This paper suggests a methodology to build an ontology-based knowledge map enabling the referential navigation between knowledge. The ontology-based knowledge map resulted from the proposed methodology can not only express the referential navigation between knowledge but also infer additional network between knowledge based on the dependent relationships. To verify the feasibility of the proposed concepts, a referential navigation-enabled knowledge map is exemplified.