Knowledge representation with autonomic ontologies.


Summary: The important role given to domain ontologies for knowledge representation implies increasing need for development and maintenance of them. However, we have a scarcity of tools supporting the life cycle from creation to management and adaptation. Our research group focuses on developing an autonomic process for knowledge representation through a systematic evaluation and redesign of ontologies. This autonomic behavior intends to specify a self-management repository for domain ontologies with an evolution strategy to make adjustments to optimize and protect against undesirable scenarios. In this article, we present the repository with embedded autonomic features to perform the abstraction action of knowledge upon documents collection, using the background knowledge already specified in the domain ontologies.

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