

ABSATRACT:

The top-level concepts of the ontologies and the hungarian universal thesaurus

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The hierarchy of ontologies based on generic relation is described by exact logical declarations. However, generic hierarchy itself depends on philosophical views and intuition. In other words, depending on aspect and intuition it can be chosen different conceptual hierarchy.

The selection of top-level concept of hierarchy depends on aspect as well. Generally the number of these top-level concepts is no more than 5-10. Top-level concepts of ontology mainly determine the structure of subordinated concepts. (1) Because of intuitive approach it can be expected that generic hierarchies are very different in their details,(2). On the other hand, it could have expected that the structure of the top-level concept of different hierarchies will be different.

We show on examples of several ontologies that in generic hierarchy of top-level concepts there are not really unsolvable differences. Which means that the second expected consequence will not be realized. Consequently: however big are the differences between the special hierarchies of the ontologies, by necessity the basis of the apparently different hierarchies is the same concept system.

Examined ontologies (DOLCE, SUMO stb.), are a collection of approximately 1000 well-defined and well-documented concepts, interconnected into semantic network and accompanied by a number of axioms and logical declarations.

For comparison we used top-level concepts of universal Hungarian Thesaurus (Köztaurus) as a basis. The top-level concepts of Köztaurusz and well-known ontologies are shown using parallel tables.

From the results of the comparison it can be concluded that the Hungarian adaptation of the internationally developed ontologies has no significant difficulties.