

## **Using Distance-Based and Information Theoretic Semantic Relatedness Measures on Semantic Web Ontologies**

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The success of the Semantic Web is linked with the use of ontologies on the Semantic Web. Ontologies help systems understand the meaning of information and can serve as the interface to the inferencing layer of the Semantic Web. An increasingly important task is to determine a degree or measure of semantic relatedness between concepts within and across ontologies. This presentation provides an overview of such measures using several examples found in the research literature. A relationship between the distance-based network and information theoretic semantic relatedness measures has been discovered through the use of a set-theoretic measure and a new information content measure. New measures of semantic relatedness between ontological concepts are proposed by viewing each concept as a set of its descendent leaf concepts.