World Academy of Science, Engineering and Technology
International Journal of Cognitive and Language Sciences
Vol:12, No:06, 2018

Measuring Text-Based Semantics Relatedness Using WordNet

Authors : Madiha Khan, Sidrah Ramzan, Seemab Khan, Shahzad Hassan, Kamran Saeed

Abstract : Measuring semantic similarity between texts is calculating semantic relatedness between texts using various techniques. Our web application (Measuring Relatedness of Concepts-MRC) allows user to input two text corpuses and get semantic similarity percentage between both using WordNet. Our application goes through five stages for the computation of semantic relatedness. Those stages are: Preprocessing (extracts keywords from content), Feature Extraction (classification of words into Parts-of-Speech), Synonyms Extraction (retrieves synonyms against each keyword), Measuring Similarity (using keywords and synonyms, similarity is measured) and Visualization (graphical representation of similarity measure). Hence the user can measure similarity on basis of features as well. The end result is a percentage score and the word(s) which form the basis of similarity between both texts with use of different tools on same platform. In future work we look forward for a Web as a live corpus application that provides a simpler and user friendly tool to compare documents and extract useful information.

Keywords : Graphviz representation, semantic relatedness, similarity measurement, WordNet similarity
Conference Title : ICLSS 2018 : International Conference on Language Sciences and Semantics
Conference Location : Venice, Italy
Conference Dates : June 21-22, 2018