Visualizer for concept relations in an automatic meaning extraction system.

ABSTRACT

Purpose – The purpose of this paper is to discuss the visualizer interface that has been developed for the first phase of an automatic meaning extraction (AME) system. Design/methodology/approach – AME system was developed to automatically extract concepts and their relations across texts from all domains of knowledge. One challenge for the developer is to create interface tools that help the users use the system. This paper describes a visualizer interface that can map the concepts and relations in the form of two-dimensional graph or network. Findings – Using this visualizer, users can maximize the use of AME system by allowing the visualization of the concepts' networks results. Users can search for a concept and view the relationships of the concept to other concepts. Those relationships can be traced back to the source sentences in the original documents through the "Show Text" function. Originality/value – This visualizer is useful in solving the problem of visualizing the relationships between concepts across varied domains of knowledge. The extraction of relationships in the AME system is based upon a unique connector-based relation extraction. It is particularly appropriate for target users such as the researcher, educators and learners. The visualizer implements the Java Universal Network/Graph Framework to provide a few functions that enable users to manipulate the concepts graph.