

Self-learning Semantic-distance-based Answering System with Automatic Morpheme Recognition

L. Dudás

Department of Information Engineering, University of Miskolc, Miskolc, Hungary

Abstract—At the beginning of the 21st century humanity has accumulated a very large amount of static data and facts. The problem is to make it active, to produce knowledge. One of the keys to this is restructuring, representing data in a new way. The emphasis is on the dynamic associations between data elements. Instead of storing distinct atoms of knowledge the goal is to build up a network of facts and methods that mirrors the relations found among them in the world, moreover in the human brain. One of the difficult tasks in this endeavor is to capture the meaning. The most feasible knowledge representation method for this purpose is the semantic network. This powerful technique has its new Renaissance in our days. This article offers a new definition of the meaning of a sentence for a human and presents a simple technique for searching for sentences having meanings close to the meaning of a given sentence. In some languages the morpheme structure of words plays a particularly important role in this process. This paper presents an automatic morpheme learning technique integrated in the answering system, using the Hungarian language as an example.

Keywords: NLP, self-learning, semantic distance, answering system, meaning, morpheme recognition.

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