Paraphrasing refers to conveying the same content in several ways. The successful recognition of paraphrases is crucial to various natural language processing tasks such as Information Extraction, Document Summarization, Question Answering etc. Several techniques have been employed for paraphrase recognition using lexical, syntactic and semantic features. Many of these systems have been tested on the MicroSoft Research Paraphrase Corpus. But the performance of these systems has scope for further improvement. Since neural network architectures model the human brain structure which excels at natural language processing tasks, this paper presents a neural network classifier for recognizing paraphrases. A combination of lexical, syntactic and semantic features has been used to train a Back Propagation network. The system can be utilized for detecting similar sentences in applications such as Question Answering and detection of plagiarized content.

Reference


Paraphrase Recognition using Neural Network Classification


Index Terms

Computer Science

Pattern Recognition
Key words

Paraphrase Recognition

Lexical

Syntactic

Semantic features

Neural Network Recognizer

Back Propagation Network