Overview of biomedical relations extraction using hybrid rule-based approaches.

ABSTRACT

Unstructured text documents are the major source of knowledge in biomedical fields. These huge amounts of information cause very difficult task of extraction or classification.Therefore, there is a need for knowledge discovery and text mining tools in this field. A lot of works have been done on relation extraction in biomedical field. However, each of them was implemented in three major types of techniques separately i.e.co-occurrence,kernel based and rule based methods. There are many variants of these algorithms have been developed but the combination of it has not been verified yet. In this paper we will compare each of those three methods and propose a new combination of relation extraction method between medical and biological entities from biomedical documents.Furthermore, a lot of researches have been done on biomedical binary relation such as protein-protein and gene-protein relations and few researches were on complex relations such as metabolic pathways. However, in this work we will discuss the overview a combination of three methods called as hybrid rule-based to extract complex and simple relations.

Keyword: Text mining; Biomedical relation extraction; Kernel methods; Rule-base methods