## Named entity recognition approaches

## **ABSTRACT**

Recognizing and extracting exact name entities, like Persons, Locations and Organizations are very useful to mining information from text. Learning to extract names in natural language text is called Named Entity Recognition (NER) task. Proper named entity recognition and extraction is important to solve most problems in hot research area such as Question Answering and Summarization Systems, Information Retrieval, Machine Translation, Video Annotation, Semantic Web Search and Bioinformatics. Nowadays more researchers use different methods such as Rule-base NER, Machine Learning-base NER and Hybrid NER, to identify names from text. In this paper, we review these methods and compare them based on precision in recognition and also portability using the Message Understanding Conference (MUC) named entity definition and its standard data set to find their strength and weakness of each these methods. We proposed a robust and novel Machine Learning Based method called Fuzzy support Vector Machine (FSVM) for NER.

**Keyword:** Named entity recognition; Extraction; Information retrieval; Information extraction; Feature selection; Video annotation