A Theoretical Study of WSD

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Abstract

TODO

1 Introduction

Entities in text can be related to some time points or intervals mentioned in an article. For example, when we try to search for Thanksgiving day in 2018, the result returned from search engine should be 2018-10-8. The concept of knowledge base is addressed to solve this problem where individual entities and relationships among them are stored in a large repository. The problem then arises: can we find out a method to detect entities and temporal taggings, along with observe their relations in plain text?

Our task could be formulated in such way: given a set of articles with entities and meaningful temporal expressions, we first pre-process the text and extract the candidate entities and temporal expressions, then we calculate the importance score by using a series of features for each entity - temporal expression pair so that the output will be a list of ranked entity - temporal expression pairs. In this way, we can extract the most important temporal information along with their corresponding entities from a article (plain text) without assistance of any external resources.

This task is important as it can be applied to many other fields in Information Retrieval, for example, our model can be used to enrich the content of a existing knowledge base by providing temporal information that was taken from any source of text.

2 Related Work

TODO

3 Method

The section presents information about how we approached the current task with more detailed description about the data set.

3.1 Data

TODO

3.2 Lexical Feature

TODO

3.3 Syntactic Feature

TODO

3.4 Evaluation

TODO

4 Result

The section present the results of current task followed by detailed error analysis. TODO

5 Conclusion

TODO

Acknowledgments