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Annotation of Temporal and Event Expressions

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Abstract

Humans live in a dynamic world, where actions bring about consequences, and the facts and properties associated with entities change over time. Without a robust ability to identify events in NL data and temporally situate them, the real 91aboutness92 of the information can be missed. In appreciation of this need, there has recently been a renewed interest in temporal and event-based reasoning for NLP, aimed at addressing challenges in areas such as information extraction, question-answering, and summarization.

This tutorial will begin with an overview of theoretical work on tense, aspect, and event structure in natural language, as well as the fundamentals of temporal reasoning. It will then go on to discuss the annotation of temporal and event expressions in corpora, including the TimeML specification language and other results from the ARDA/NRRC Workshop on Temporal and Event Recognition for Question Answering Systems (TERQAS). The tutorial will examine how to formally distinguish events and their temporal anchoring in documents, and will discuss algorithms for ordering events mentioned in a document relative to each other and for computing closure over an entire discourse of events.

Tutorial attendees can expect to learn about current methodologies and computational resources, the outstanding problems in the area, as well as obtain follow-up pointers to the research literature. Attendees should be familiar with information extraction and the notion of corpus annotation. The course should appeal to those with an interest in leveraging robust semantic analysis for tasks like question-answering, information extraction, and summarization.