XTM: A Robust Temporal Text Processor

Caroline Hagège¹, Xavier Tannier²

¹ Xerox Research Centre Europe, 6 Chemin de Maupertuis, 38240 Meylan ,France Caroline.Hagege@xrce.xerox.com ² LIMSI, 91403 Orsay, France Xavier.Tannier@limsi.fr

Abstract. We present in this paper the work that has been developed at [hidden name] to build a robust temporal text processor. The aim of this processor is to extract events described in texts and to link them, when possible, to a temporal anchor. Another goal is to be able to establish temporal ordering between the events expressed in texts. One of the originalities of this work is that the temporal processor is coupled with a syntactico-semantic analyzer. The temporal module takes then advantage of syntactic and semantic information extracted from text and at the same time, syntactic and semantic processing benefits from the temporal processing performed. As a result, analysis and management of temporal information is combined with other kinds of syntactic and semantic information, making possible a more refined text understanding processor that takes into account the temporal dimension.

1 Motivation

Although interest in temporal and aspectual phenomena is not new in NLP and AI, temporal processing of real texts is a topic that has been of growing interest in recent years (see [5]). The usefulness of temporal information has become clear for a wide range of applications like multi-document summarization, question/answering systems (see for instance [10]) and information extraction applications. For presenting search results, Google also offers now, in an experimental way, a timeline view to provide results of a search (see www.google.com/experimental). Temporal taggers and annotated resources such as TimeBank ([7]) have been developed. An evaluation campaign for temporal processing has also been organized recently (see [11]).