

Multilingual Temporal Processing: Annotation and Evaluation

Proposer(s) / Proposatzailea(k)

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Description / Deskribapena

Capturing and Structuring Temporal Information consists of: (i) identifying any temporal expression and event in text; (ii) establishing the temporal order in which the events occurred, as defined by the TempEval3 shared evaluation task (UzZaman et al. 2013). The starting point would be the work described TempEval3 and Altuna et al. (2017) but with the aim of addressing languages for which currently no annotated data exists. Furthermore, the role of both event and nominal coreference in the task would be explored.

Goals / Helburuak

At least two of the following objectives will be addressed: a) to create a new TimeML annotation scheme for a language which currently does not address temporal processing; b) to identify temporal expressions, events and their temporal relations in text; c) to automatically annotate raw text using the newly created TimeML annotation scheme for the chosen language; d) to study the importance of event and nominal coreference and their interaction with temporal expressions in the task.

Requirements / Betebeharrak

Framework / Esparrua

Tasks and plan / Atazak eta plana

a) Creation of a new annotation scheme inspired by the original TimeML for English and eusTimeML for languages which currently do not treat temporal processing; b) development of semi-automatic methods for the creation of a corpus annotated with the newly created TimeML scheme; c) statistical and deep learning approaches for modeling multilingual temporal expressions; d) establishing, via experimentation, how useful it is recognizing coreferent event and nominal expressions for the task.

References:

Begoña Altuna, María Jesús Aranzabe, Arantza Díaz de Ilarraza (2017). EusHeidelTime: Time Expression Extraction and Normalisation for Basque. In Proceedings of SEPLN 2017.

UzZaman, N., Llorens, H., Derczynski, L., Allen, J., Verhagen, M., Pustejovsky, J. (2013). Semeval-2013 task 1: Tempeval-3: Evaluating time expressions, events, and temporal relations. In Proceedings of the Seventh International Workshop on Semantic Evaluation (SemEval 2013), Atlanta, Georgia, USA. pp. 1–9.