Motivation

In eLearning 2.0 members interact and learn together by creating discourse through blogs, discussion forums and wikis.

User generated discourse:
- much less formal
- written from a personal point of view
- embodies opinions of the author

Automatic extraction of topics and associated opinions can provide a valuable feedback to instructors and learners.

Goals

- Automatic identification of subjective content:
  - Linguistic (syntactic and semantic) clues for expressing emotions, sentiments, evaluations, opinions, beliefs, etc.
  - Topic oriented sentiment analysis:
    - Topic and opinion extraction, association
    - Opinion holder extraction
    - Determining semantic orientation of opinions in context
    - Overcoming domain dependency in sentiment analysis
    - Sentiment trending for specific topics over time

Methods

Natural language processing, information extraction and text mining techniques:

- Dictionary-based methods: resource development from knowledge sources
- Keyword extraction
- Patterns for sentence-level sentiment analysis
- Exploiting information extraction techniques for topic oriented sentiment analysis
- Manual annotation, inter-annotator studies for sentiment-strength analysis

Software:
- Darmstadt Knowledge Processing Repository
- Integrated set of UIMA-based NLP tools

System Architecture

Publications


People

Principle Investigator
Project Coordinator
Dr. Iryna Gurevych
gurevych@tk.informatik.tu-darmstadt.de

Doctoral Researcher
Dipl.-Inf. Cigdem Toprak
c_toprak@tk.informatik.tu-darmstadt.de

Funding

Deutsche Forschungsgemeinschaft

www.ukp.tu-darmstadt.de