Sentiment Analysis in Turkish for Movie Reviews

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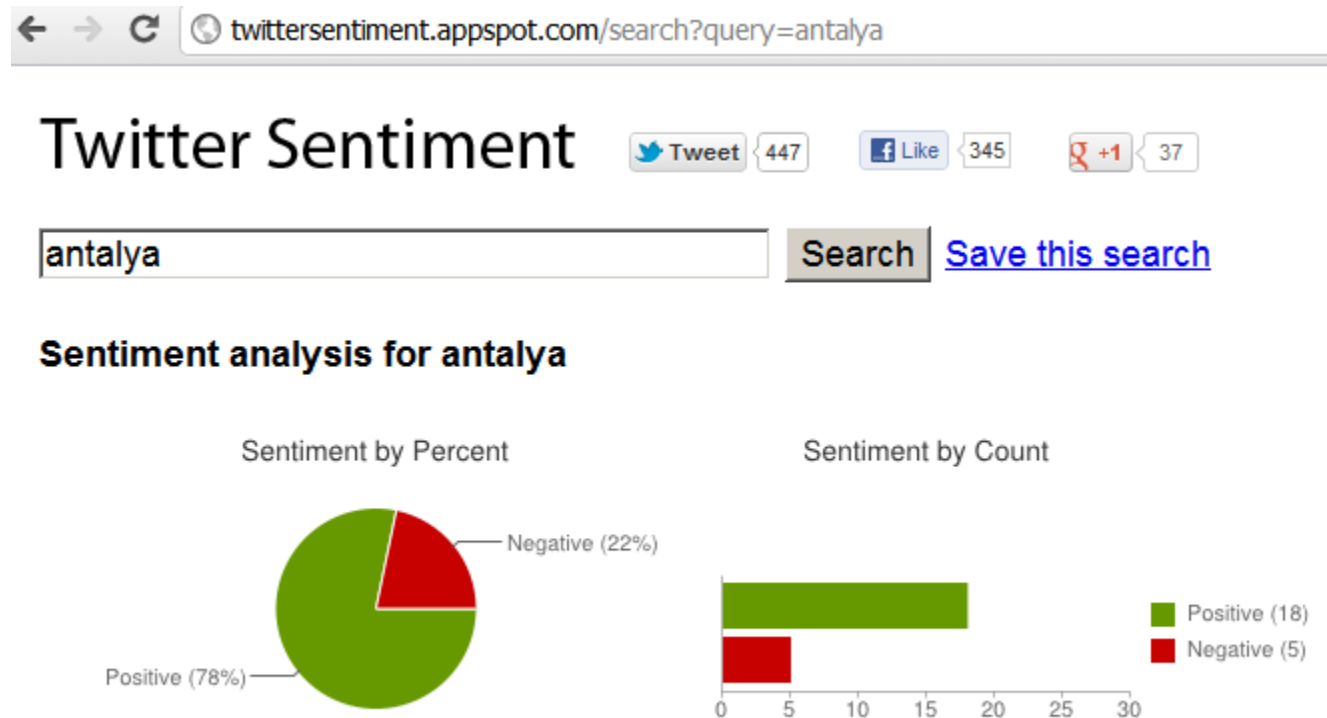
Outline

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Problem Definition

- Sentiment Analysis(Opinion Mining)
  - The process of extracting subjective information from a text resource.
  - Main task is determining the polarity of a text; **Positive** or **Negative.**
  - Another task is to find out a comparative opinion; **Most Negative** to **Most Positive**
  - Example: Given the below opinions what is the sentiment about cars of X company?
    - I bought a car from X company.
    - Its engine is great, but its fuel consumption is too high.
    - After sales services of X is not good.
  - The problem in sentiment analysis is to define a formal representation of unstructured textual data and classify it as positive, negative or neutral.

Example

Motivation

- In our project, we will deal with the Turkish movie reviews and extract the reviewers' general perception on movies.

- It's been easier to reach movie reviews
- Reviews are rich, long and subjective

- Ovarall opinion report

- We will be able to evaluate

Related Works

- Positive vs. Negative; Binary Outcomes:
  - Turney et al. Thumbs up or thumbs down? Semantic orientation applied to unsupervised classification of reviews. In *Proceedings of the ACL,* 2002
  - Dave et al. Mining the peanut gallery: Opinion extraction and semantic classification of product reviews. In *Proceedings of WWW,* 2003

- Multiple Outcomes
  - Bo Pang and Lillian Lee, Seeing stars: Exploiting class relationships for sentiment categorization with respect to rating scales. In *Proceedings of the ACL*, 2005.

Methodology

- Create features and related effective words
  - Construct a set of features
  - Construct sets of related words (nouns, adverbs, verbs) for each feature and categorize according to effect (positive/negative/neutral)

- Construct part-of-speech components: conjunctions negators, comparative components

- Sentence structure analysis: direct opinion, comparison…

Conclusion

- We will deal with Turkish movie reviews

- Throughout the project
  - Put methodology in formal settings
  - Evaluate