

Sentiment analysis

Abstract

Sentiment analysis is a predominantly classification algorithm aimed at finding an opinionated point of view and its disposition and highlighting the information of particular interest in the process.

Sentiment Analysis also known as Opinion Mining is a field within Natural Language Processing (NLP) that builds systems that try to identify and extract opinions within text. Usually, besides identifying the opinion, these systems extract attributes of the expression e.g.:

- Polarity: if the speaker express a positive or negative opinion,
- Subject: the thing that is being talked about,
- Opinion holder: the person, or entity that expresses the opinion.

Opinion mining and sentiment analysis is rapidly growing area. There are numerous e-commerce sites available on internet which provides options to users to give feedback about specific product. These feedbacks are very much helpful to both the individuals, who are willing to buy that product and the organizations. An accurate method for predicting sentiments could enable us, to extract opinions from the internet and predict customer's preferences. There are various algorithms available for opinion mining. Before applying any algorithm for polarity detection, pre-processing on feedback is carried out. From these pre-processed reviews opinion words and object on which opinion is generated are extracted and any opinion mining technique is applied to find the polarity of the review. Opinion mining has three levels of granularities: Document level, Sentence level and Aspect level. In this paper various algorithms for sentiment analysis are studied and challenges and applications appear in this field are discussed.

Keywords: Sentiment Analysis, Machine Learning, Support Vector Machines, Decision Trees, Recurrent Neural Networks, Naive Bayes