Chapter 10
Aspects Regarding Detection of Sentiment in Web Content

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ABSTRACT

Last decade evolutions on telecommunications changed the way the information is created and presented. New technologies, has allowed the transition from static presentation of information, to a dynamic way, directly involving users. The Web is currently a platform that allows users to interact with each other, to facilitate the exchange of information. Users have become, from mere consumers of information in the online environment, active participants which increases the information content.

OVERVIEW

Recent advances have produced also changes in the way information is retrieved. Techniques of opinion mining and sentiment analysis offers a possibility of automatic analysis of user-generated content. Current research in this area allows automatic identification and extraction of opinions and emotions. Information generated by Internet users has increased exponentially in recent years, become important for the extraction of knowledge from a virtual environment. The sheer volume of data makes it impossible for manual processing, and also, automatic analysis requires additional difficulties, due to the use of informal language by users. Sometimes, depending on the specific of text, the propositional structure is absent (Cvijikj, 2011).

Sentiment analysis, called also in scientific literature as opinion mining, involves the determination and classification of opinions or feelings expressed in text, through the use of computing machines. An opinion presumes the existence of an opinion holder, a target entity on which opinion is issued, a particular aspect of the entity and a sentiment orientation of that opinion (Palmer, 2009).

APPLICATIONS OF SENTIMENT ANALYSIS

Opinions are important for humans because it influence their behavior and are a base for decision making. An important part of getting knowledge in a market field represents finding what people think about that field. People search online for comment and reviews posted by others when they want to make a buying transaction or want to inform themselves in a specific topic.

Identifying consumer opinions on a company's products is as important as knowing sales volumes, but often it is more difficult to obtain. Companies can no longer rely only on internal data in their business analysis. Current research in sentiment analysis addresses these needs of expanding the amount of information collected by companies, by analyzing the huge volume of information generated by the online social networks (Facebook, Twitter, Google+), the comments from e-commerce sites (Amazon. com) and reviews on products or services on specific platforms (Yassine, 2010).

By revealing users opinion on specific entities or topics, sentiment analysis can be used for (Collomb& Costea 2014):

- Summarizing indication and recommendations for customers for buying a product
- Extracting opinion for a specific feature of a product customer want to buy
- Helping companies to know the opinion of customers regarding their products
- Finding for a company the weak points in market perception
- Determining the relevant information for a statistical analysis by removing the subjective part of content.

Given the applications presented above there are multiple areas where such analysis can be used:

- E-commerce for providing products information
- Marketing for determining customers expectations and needs, also for determining brand reputation, market perception and keeping clients (Gautami Tripathi, 2014)
- Politics for prediction of election results
- Government and administration for analyzing public opinion on policies and adopted reforms
- Stock market for predicting the evolution of stocks in correlation with market perception regarding a listed company

DATA SOURCES

An important role in the growth of user-generated information, have had social networks. These have changed the way information reaches to potential customers, changing the communication traditional mode of one to many to one-to-one communication (Harrison, 2013). Opinion mining techniques used in social networks helps to understand how certain products or services, are perceived in the market. Marketers have significantly changed the way of communication with potential customers, understanding the potential of using marketing in social networks (Liu, 2011). Studying the social environment also provides consumer information about needed products, through feedback provided in comments and reviews.

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