Aspect Based Sentiment Analysis on Consumer Reviews

by

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ABSTRACT

Aspect Based Sentiment Analysis (ABSA) is a technique aimed to foster research beyond sentence or text level sentiment classification. The goal is to identify opinions expressed about specific entities(e.g., laptops) and their aspects (e.g., price). The rise of e-commerce, as a new shopping and marketing channel, has led to an upsurge of review sites for a variety of services and products. In this context, Aspect Based Sentiment Analysis (ABSA) -i.e., mining opinions from text about specific entities and their aspects can help consumers decide what to purchase and businesses to better monitor their reputation and understand the needs of the market. Given a target of interest, an ABSA method can summarize the content of the respective reviews in an aspect-sentiment table. Some review sites also generate such tables based on customer ratings, but usually only for a limited set of predefined aspects and not from free-text reviews. Retrieving information from a user generated content, particularly retrieving the sentiment in it requires the use of specialized algorithms and techniques. Added the task of categorising into aspects and retrieving sentiment for each aspect is a difficult task.The user generated reviews is a gold mine for text based classifiers. As a result of it there are special data mining approach called as Text Mining. The previous ABSA implemented was able to classify reviews of restaurant data. However it wasnt able to classify for all the cases. This project is aimed to solve the current issues and build an application to generate aspect based ratings of a product. It will use deep learning techniques to retrieve sentiment from the text reviews. Such techniques used are RNNs (Recurrent Neural Networks), LSTMs (Long Short Term Memory Neural Networks), Clustering etc, to tackle the problem. The system will be trained with reviews from popular e-commerce platforms for electronics (e.g, mobile phones, laptops). Given a product name the aspect levels and its sentiment is displayed.