



ABSTRACT

ASPECT-LEVEL SENTIMENT ANALYSIS ON SMARTPHONE CUSTOMER REVIEW

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The increasing number of user-generated text on the internet has made sentiment analysis a popular approach to extract the information. However, most of the sentiment analysis nowadays is still analyze the text in the document level. Using this approach, we will only have the overall analysis of sentiment rather than analysis on the specific target. In aspect-level sentiment analysis, it directly looks at the opinion itself. It is based on the idea that an opinion is consists of a sentiment (positive or negative) and a target (of opinion). Also it aims is to identify the aspects of entities and the sentiment expressed for each aspect. Therefore, this research focuses on sentiment analysis on the aspect level, representing three main steps: aspect extraction, aspect classification, and sentiment classification.

The data that used in this research are the user opinion from GSMarena website consists of several products. Conditional random fields are used for extracting the aspect while maximum entropy is for classifying the aspect category and the sentiment polarity. The aspect extraction task is able to achieve average f1 score 0.8 (80%). For aspect classification, the highest model was achieved by combination of unigram feature with the average F1-Score is 0.75 (75%). Lastly in the sentiment analysis task, our model was achieved the average F1-Score 0.746 (74.6%)

Keywords: Aspect Level Sentiment Analysis, Customer Review