

New Media and Sentiment Workshop – Aspect Based Sentiment Analysis

The objectives of these exercise are:

1. Perform aspect based sentiment mining using heuristics and enhance understanding
2. Modify an existing CRF aspect sentiment mining model to achieve better performance and understand how different (latent) features may affect the results.

Group yourselves into groups of **4-5** for the project. The exercise has 2 parts.

Part 1: (done in **groups**)

In the notebook 3.1 Entity and Aspect Mining – Heuristic.ipynb, aspect sentiment mining was performed for reviews of the restaurant Ding Tai Feng, which were obtained from Yelp. In this exercise we will do the same for the airline sentiment tweets from the dataset `airline_sentiment.csv`.

Below are the steps to take:

- i. Identify what aspects are of interest to airlines. For example:
 - a. Service: attendants, food, etc.
 - b. Experience: entertainment system, seats, luggage, etc.
 - c. Price
 - d. Flight journey: flight duration, airplane and general aspects, etc.The list is suggestive and not exhaustive.
- ii. Create a mapping table to associate words with these aspects
- iii. Do sentiment analysis by sentence and associate the aspects with the respective sentiments
- iv. Create a visualisation to communicate the results.

In the data file, there are tweets for different airlines. Identify which airline has performed the best in which aspect, and further communicate the results. Summarize on the challenges faced and lessons learnt.

Submit your solutions in Part 1 as a group assignment <GroupXX_Part1.xxx> with the names of the group members on the first page.