

Part-01

Aim : Case Study on a website that uses NLP

Theory :

- Name of the Website : Parallel Dots (<https://www.paralleldots.com/>)
- Two AI Components:
 1. Eye Tracking
 2. Real-time KPI feedbacks using image analysis and deep learning
- Two NLP Components :
 1. Sentiment Analysis
 2. Named Entity Recognition(NER)

1. Explain the features of NLP in the website mentioned above with 150-200 words:

ParallelDots is a website which is mainly used for ShelfWatch, where it analyses images of retail shelf displays and provides corrective feedback to help the manufacturers and retailers achieve perfect in-store execution. They have multiple products to support this ShelfWatch. With this, they provide multiple Text Analysis APIs like Sentiment analysis, Emotion detection, NER detection, Semantic analysis, Intent Analysis, Abusive Analysis.

In sentiment analysis, for a given sentence, the parallel dots Api for it will classify the sentence into three categories namely Positive, Neutral or Negative. For Example, "All my hopes are crushed" is classified as 54.8% Negative, 38.00% Neutral and 7.20% Positive, hence we conclude that sentiment of this sentence is Negative.

In Named Entity Recognition (NER), for a given sentence(s), the api will classify the components of the sentences into different named entities like Place, Name, Group, etc. For example, "In a statement issued with France and UN chief António Guterres on Saturday, China committed to “update” its climate target “in a manner representing a progression beyond the current one”. It also vowed to publish a long term decarbonisation strategy by next year." this sentence has named entities as shown below.

Named Entities	
Place:	France
Group:	UN
Name:	António Guterres
Place:	China

For NER, paralleldots give us 4 languages which are English, Dutch, Spanish and German.

For Emotion analysis, given a sentence, api will classify sentence into Happy, Angry, Excited, Sad, Fear or Bored. For example, "Conflict in your company, is definitely going to be next big thing, I can see it" which was classified as Fear with 30.95%

Similarly for Semantic analysis and Abusive Analysis , paralleldots will classify them under categories relevant to them like Positive, Neutral, Negative for semantic and Abusive or Non Abusive for Abusive Analysis.

For Intent Analysis for a given sentence, api classifies it into, News , Feedback, Spam, Marketing and Query.