**Sentiment analysis (opinion mining)**

It is the process of determining the emotional tone behind a series of words, used to gain an understanding of the the attitudes, opinions and emotions expressed within an online mention.

**Sentiment analysis uses:**

Sentiment analysis is extremely useful in social media monitoring as it allows us to gain an overview of the wider public opinion behind certain topics. Social media monitoring tools like [Brand watch Analytics, Natural language processing (NLP)](https://www.brandwatch.com/brandwatch-analytics/)make that process quicker and easier than ever before, thanks to real-time monitoring capabilities.

The applications of sentiment analysis are broad and powerful. The ability to extract insights from social data is a practice that is being widely adopted by organizations across the world.

I would like to present very simple basic model

* make set of emoticons and classify them into different sets. And give them scores

e.g sets of happiness (smile, wink, laugh etc.), sadness, shock/amaze etc.

* Give weights to each sets apart from scores. For detailing of analysis.
* with counts and summation of each score multiplied by their weights. Sentiment score can be calculated.

That’s how the brand value of a product can be calculated, these emotions can be taken from the reviews / comments on products or services.

**What is Natural Language Processing?**

NLP is a way for computers to analyze, understand, and derive meaning from human language in a smart and useful way. By utilizing NLP, developers can organize and structure knowledge to perform tasks such as automatic summarization, translation, named entity recognition, relationship extraction, sentiment analysis, speech recognition, and topic segmentation.

being one of the easiest things for humans to learn, the ambiguity of language is what makes natural language processing a difficult problem for computers to master.

**Uses of NLP**

NLP algorithms are typically based on machine learning algorithms. Instead of hand-coding large sets of rules, NLP can rely on machine learning to automatically learn these rules by analyzing a set of examples (i.e. a large corpus, like a book, down to a collection of sentences), and making a statistical inference. In general, the more data analyzed, the more accurate the model will be.

* **Summarize blocks of text**
* Create a**chat bot**
* **Automatically generate keyword tags**
* **Identify the type of entity extracted**, such as it being a person, place, or organization using [Named Entity Recognition](https://algorithmia.com/algorithms/StanfordNLP/NamedEntityRecognition?utm_source=blog&utm_medium=post&utm_campaign=nlp).
* Use [Sentiment Analysis](https://algorithmia.com/algorithms/nlp/SentimentAnalysis?utm_source=blog&utm_medium=post&utm_campaign=nlp) to **identify the sentiment of a string of text**, from very negative to neutral to very positive.
* **Reduce words to their root**, or stem or **break up text into tokens**.

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