





What is Oyster's **Voice of Customer Analytics (VOCA)** engine?

The VOCA Engine performs analysis of text data in online content, social media and reviews gathered from various sources, and subsequent deduction of sentiment and other semantic information. **Oyster's VOCA Engine** has several tools and features that make it leagues ahead of basic textual mining:



Sentiment Analysis

Find out the consumer sentiment (Positive/Neutral/Negative) from web content and social media with text, audio, and image support




Emotion Analysis

Determine your consumer's emotions from an advanced six-class analysis (Joy, Trust, Surprise, Anger, Sadness, Fear)




CDP Integration

The VOCA Engine integrates seamlessly with our **Customer Data Platform Oyster**, opening endless possibilities with Social Listening.




Emoji & Multilingual Support

The engine understands Emojis & emoticons and supports sentiment analysis in multiple languages




Topic Modeling

Automatically identifies topics of discussion and frames the context of the textual data for peak clarity




Named Entity Recognition

Identifies named entities in content. Such entities include names of people, places, objects such as commercial or food items, organizations, etc.



Visual Dashboards & Insights Window

Get an **active insight dashboard**, pareto charts, timeline graphs and so much more



Keyword Extraction

Extracts the **most relevant keywords** to convey the main and recurring themes of the underlying text

How does it work?

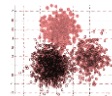
The VOCA Engine is a culmination of several algorithms, functionalities and processes:



Data Sources:
Websites and Online Forums



NLP based tools & techniques



All sub-modules within VOCA can function independent of each other



API Integration



Microservice Architecture



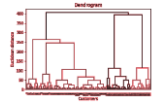
Sentiment Analysis

- ∞ Makes use of Bi-LSTM (Long Short-Term Memory)
- ∞ Uses techniques such as tokenization, word embeddings and contextual string embeddings.
- ∞ Customizations for fine grained sentiment analysis (scoring of 1-10.)



Emotion Analysis

- ∞ Six Emotion Classes: Joy, Trust, Surprise, Fear, Sadness, Anger
- ∞ Employs a sentiment filter which relates positive sentiment to trust and joy while negative sentiment to fear, sadness and anger



Topic Modeling and Keyword Extraction

- ∞ Topic Model uses Stemming, Lemmatization, and Removal of stopwords and unnecessary characters
- ∞ Tf-idf (Term Frequency- Inverse Document Frequency) approach to convert each review to a vector representation..

VOCA Engine calculates Net Promoter Score (NPS), a metric used to measure public perception of a brand on social media

Unique things to try with Oyster's VOCA:

1. Classify reviews based on location
2. Advanced Sarcasm Detection
3. Identify b/w Fake and paid reviews

VOCA Engine can also be deployed as a Microservice with one consolidated API for all the VOCA services

Why should you use it?



Gain additional revenue through efficient **customer retention** strategies with concise budget planning



Named Entity Recognition allows you to **identify mention of competitors or partners**, leading to deeper insights for customer satisfaction



Create viral content and spread compelling campaigns to increase **customer loyalty**



Incentivize your repeat customers with compelling upsell and cross-sell strategies



Real time audience insights and understand brand strengths and weaknesses



Achieve **advanced segmentation** based on sentiment and emotional bifurcation

ABOUT EXPRESS ANALYTICS

Express Analytics data driven solutions helps businesses maximize the value of every customer. We've two things going for us – proven expertise in analytics, and a clients list of global companies, including some Fortune 500 ones. You give us your data; we will give you real value in return.

OUR SOLUTIONS

- Customer 360
- Data Management
- Data Enrichment
- Identity Resolution
- Data Integration and Automation
- Marketing Analytics
- Predictive Models
- Marketing Attribution Models
- Channel Mix Modelling
- eCommerce Analytics
- Sales & Merchandising Analytics
- Business Intelligence and Reporting

Find out more about us on www.expressanalytics.com