



Cygnet **Infotech**  
IT is about you

# AI Based Sentiment Analysis

For Hospitality Industry

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### Competitive Advantage

Gain a competitive advantage by understanding how your brand performs compared to others

### Crisis Management

Find out the problem areas of your offerings and use the data to inform the product roadmap

### Customer Engagement

Adjust your strategies based on both positive and negative reactions of your services to meet consumer needs

### Boost Sales Revenue

Identify negative sentiments being expressed and turn poor customer experiences into positive ones to increase sales

## Client Profile

Our client is the largest travel listings community worldwide – covering 8 million accommodations, airlines, restaurants, and experiences. They have 490 million unique visitors each month. They offer price comparison, worldwide holiday rental listings, free travel guides, popular forums and more.

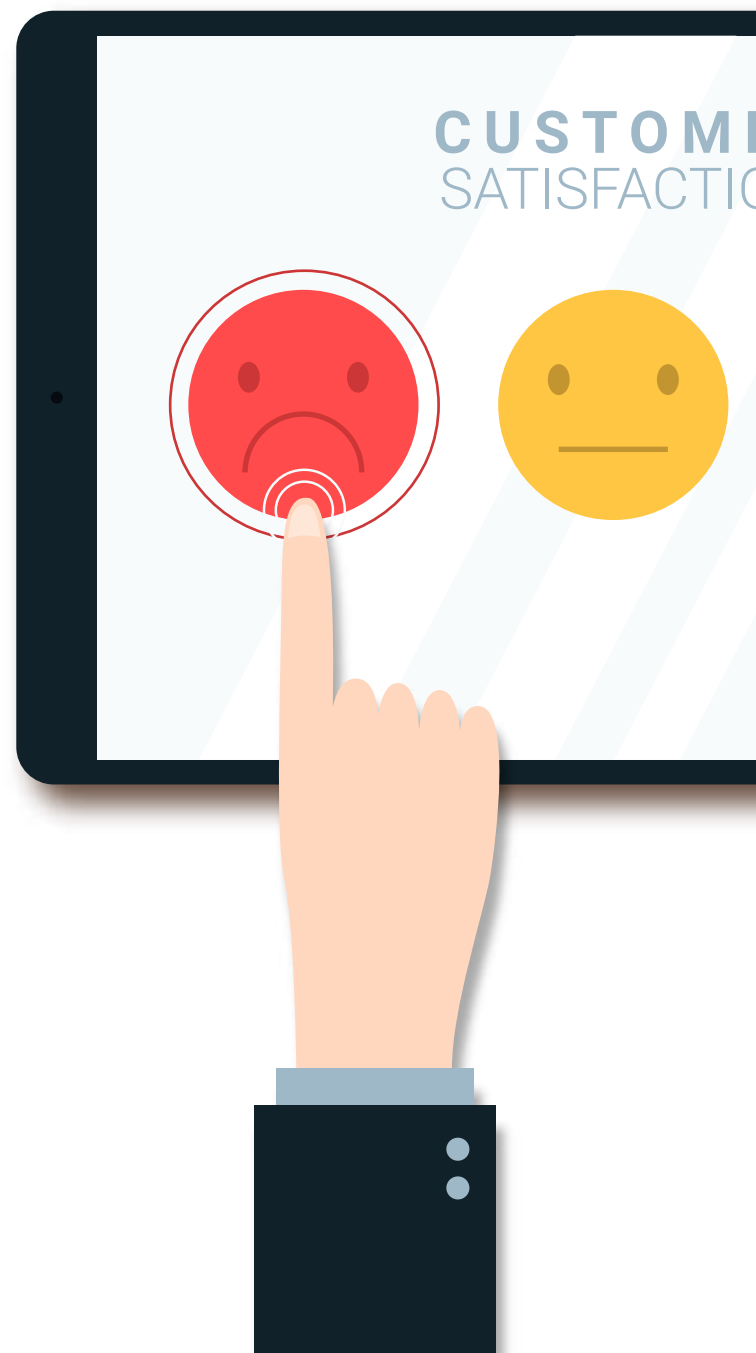
## Business Scenario

Our client has been ranked as the most popular site for trip planning with millions of tourists visiting the site. As a result, the number of online reviews and opinions have been growing exponentially. To convert this data into actionable insights and to improve the quality of services and customer satisfaction, our client wanted to analyze sentiments of the customers receiving hospitality services on their trips. The idea was to analyze and segregate reviews in the form of positive, negative or neutral sentiments. This held a great potential to directly influence the services they offer.

## The Key Objectives for Implementing Sentiment Analysis Were:

- Improve customer services
- Reveal insights on the market and competitors
- Define customer engagement strategies
- Support proactive engagement to grow brand awareness
- Optimize the impact of brand messaging

Therefore, our client wanted to implement sentiment analysis – a machine learning tool to discover and classify online opinions, reviews, sentiments and feelings of the customers. Doing so, would help our client leverage this data to improve the quality of hospitality services offered.



# Cygnets Solution

Considering Cygnets expertise in AI and Machine Learning, the client partnered with Cygnets to develop and implement a next-gen Artificial Intelligence solution. Cygnets expert team carefully understood the project requirements and analyzed the scope of work. We proposed an effective method called Naive Bayes Classification to classify the polarity of reviews (negative, positive, conflict and neutral) given on the website and to score these reviews.

After the reviews were bifurcated, stop words (redundant words/data) were filtered out and then the n-gram algorithm was applied on the datasets to find words that made sense together.

Using this method, we provided next-level of insights into how people perceived our clients services and brand.



**Cygnets Infotech assisted the client to identify the strengths and weaknesses of their offerings; drive business decisions by leveraging the voice of customers and provided actionable insights for better results.**



## Business Benefits/Results

Naive Bayes Classifier based algorithm offered a higher level of accuracy among other traditional approaches earlier used for similar problem sets.

Sector / Tools	Stanford CoreNLP	NLTK	SentimentAnalysisOnline.com	Our results
Hospitality	33%	50%	57%	70%

In the Hospitality Industry, online written reviews are great datasets for doing sentiment analysis because they represent the voice of the customer and what they are saying about brands. This provides an incredible advantage in understanding and catering to the customers needs.

## Tools & Technology



Python



Apache

# About Cygnet

Cygnet Infotech is one of the most trusted names in the IT space delivering technology solutions to global clients across 35 countries. Born out of a vision to create software development company where quality, innovation and personalized services trump low cost, makeshift solution, Cygnet partners with its clients to help them transform in to high performance businesses.

Cygnet has deep industry and business process expertise, global resources and a proven track record in delivering innovative technology solutions. Cygnet can mobilize the right people, skills and technologies that improves business performance.



Founded in 2000,  
currently with offices  
across 6 continents



900+ Employees  
Delivered 2000+  
Projects



18 Years of Experience  
Serving 750+ clients  
in 35 countries



95% Client Retention

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