

SURYA GROUP OF INSTITUTIONS

COURSE NAME

ARTIFICIAL INTELLIGENCE

PROJECT NAME

*Sentiment analysis for marketing*

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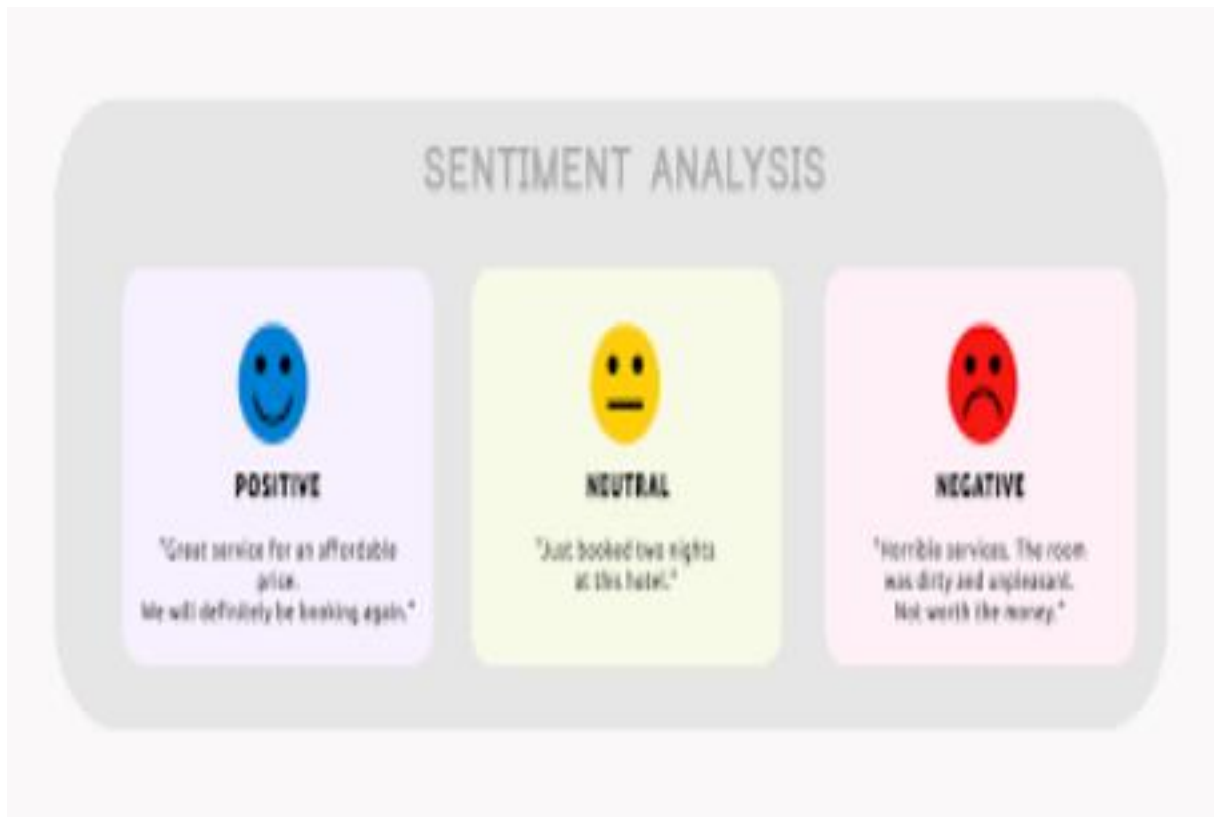
# **INTRODUCTION**

*Sentiment analysis or opinion mining is the computational study of people's opinions, sentiments, attitudes, and emotions expressed in written language. It is one of the most active research areas in natural language processing and text mining in recent years. Its popularity is mainly due to two reasons. First, it has a wide range of applications because opinions are central to almost all human activities and are key influencers of our behaviors. Whenever we need to make a decision, we want to hear others' opinions. Second, it presents many challenging research problems, which had never been attempted before the year 2000. Part of the reason for the lack of study before was that there was little opinionated text in digital forms. It is thus no surprise that the inception and the rapid growth of the field coincide with those of the social media on the Web. In fact, the research*

has also spread outside of computer science to management sciences and social sciences due to its importance to business and society as a whole. In this talk, I will start with the discussion of the mainstream sentiment analysis research and then move on to describe some recent work on modeling comments, discussions, and debates, which represents another kind of analysis of sentiments and opinions.

# **SENTIMENT ANALYSIS**

The widespread use of social media and the internet enables us to collect new sentiment data in the form of online reviews and comments. By tapping on the connectivity and advanced analytical methods provided by MCT™, the Sentiment Analysis App automatically analyses these data to reveal insights into customer behaviours and needs. All these occurs real-time, so companies are able to respond to customer behaviours in the shortest time possible. By understanding what customers really want, companies are able to come out with more effective, targeted marketing campaigns and improved product designs.



## SENTIMENT ANALYSIS DASHBOARD

*The dashboard provides a simplified overall view of all products, with a choice of historical data period for relevancy to market. The graphical, numerical and coloured data layout helps users to identify trends immediately, with options to deep dive into categories.*



## Sentiment Analysis

Past 7 days

Past 30 days

Past 3 months

### OVERALL SENTIMENT LEVEL



😊 3.71  
out of 5  
Positive

### COMMENTS' SENTIMENT



👍 65%  
positive  
👎 17%  
negative  
👉 18%  
neutral



1740

comments

44.64%



1436

users

37.89%



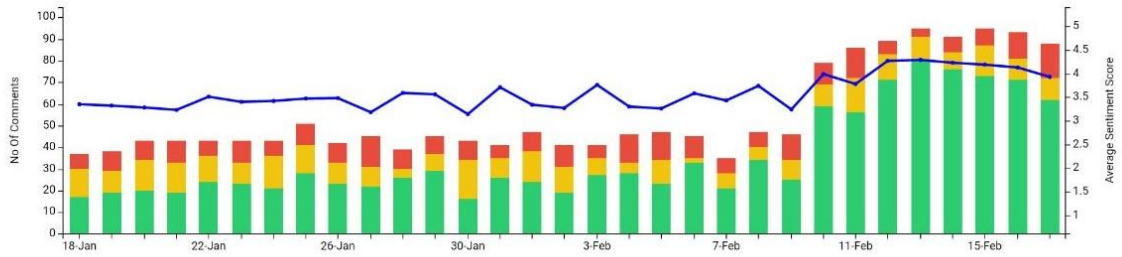
### SENTIMENT TIMELINE

— SENTIMENT SCORE

■ POSITIVE

■ NEUTRAL

■ NEGATIVE



# **PRODUCT ANALYSIS**

*Products Analysis helps the companies to understand the sentiments trending across their range of products. By doing so, companies can know when it is time to phase out old or underselling products, or to improve products based on the customers' feedback. It also enables companies to know if the changes to their products are resulting positively or negatively.*



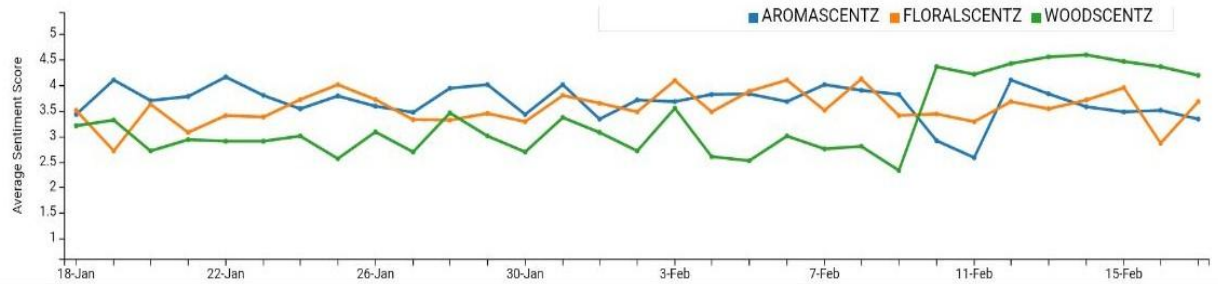
## Products Analysis

Past 7 days

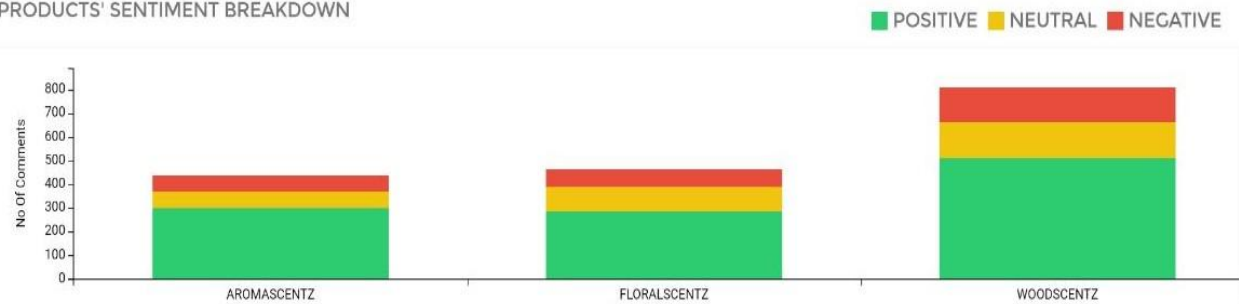
Past 30 days

Past 3 months

### PRODUCTS' SENTIMENT TIMELINE



### PRODUCTS' SENTIMENT BREAKDOWN





# **COMMENTS ANALYSIS**

Comments Analysis consists of algorithms that single out positive or negative feedback so companies can have an insight into how customers feel about their product. The algorithm categorises keywords as positive or negative and projects how frequently the keywords appear, so companies can focus on them to make the necessary adjustments.



## Comments Analysis

Past 7 days

Past 30 days

Past 3 months

## COMMENTS

No Of Comments: 1707 Page : 1 of 341

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Customer ID	Product Name	Comments	Score
1001	WOODSCENTZ	Been wearing this Cologne for years. Complements from the girls all the time . Clean, <b>fresh</b> , not a <b>sweet</b> fragrance	5
1002	WOODSCENTZ	This is a <b>great</b> cologne at a <b>super great</b> price because its a tester with no cap but who cares. It was a FULL bottle and smells <b>great</b> !	5
1003	WOODSCENTZ	I tried this cologne at Lebua Hotel in Bangkok and <b>loved</b> it. I ordered it from Amazon and the package came <b>perfectly</b> new. <b>love</b> it!!!	5
1004	WOODSCENTZ	This is my signature fragrance and I get many compliments on it.Its a light, airy scent.It is no longer available in the stores in my area. So if ever wish to try it - now is the time. Its been <b>discontinued</b> in many places. <b>love</b> IT!	5
1005	WOODSCENTZ	This is not the real Hugo cologne. I know the scent very <b>well</b> . Secondly, the bottle I received does not	1

## TOP 10 POSITIVE

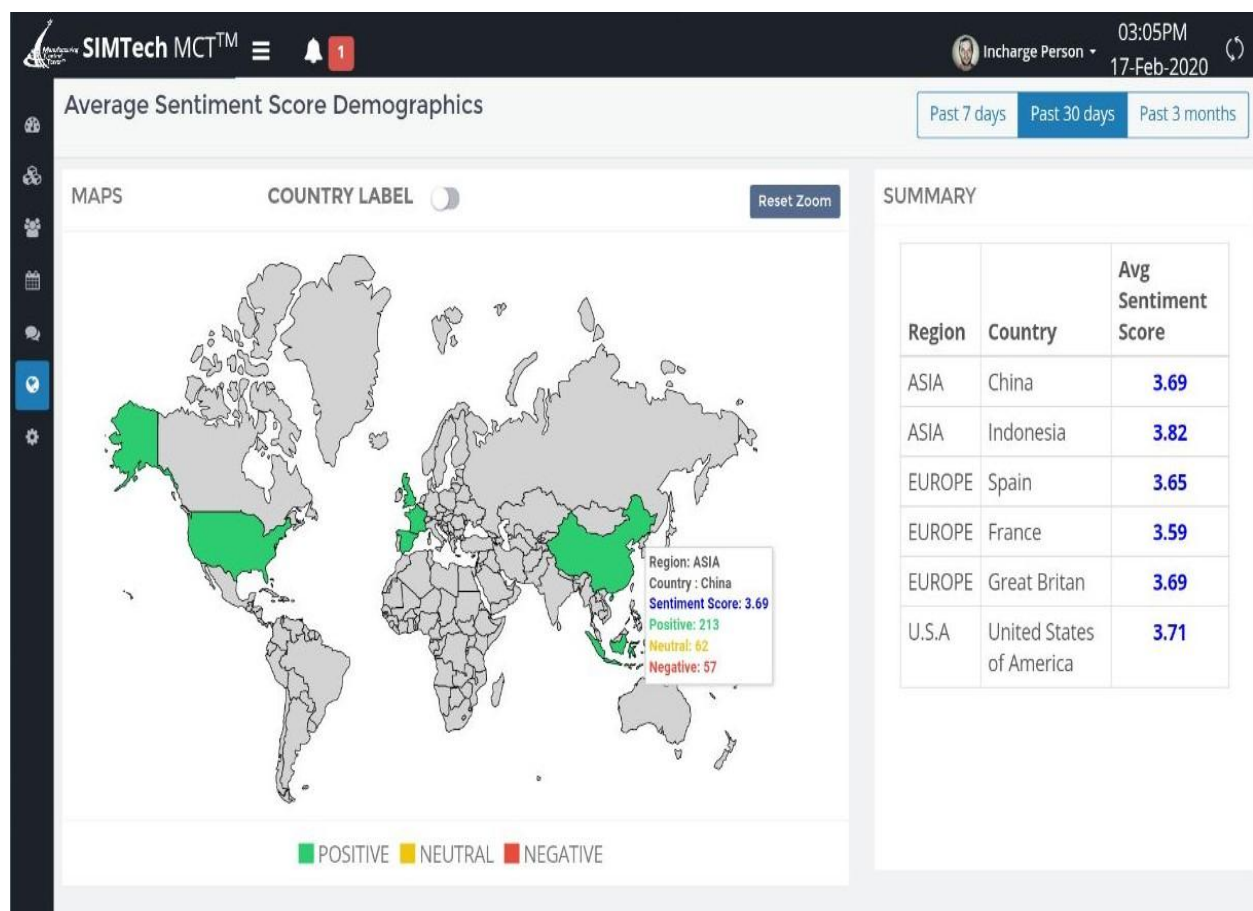
good  
like  
great well love nice  
strong sweet  
recommend

## TOP 10 NEGATIVE

disappointed  
bad worn cheap hard  
smelling smells expensive  
smell smelled

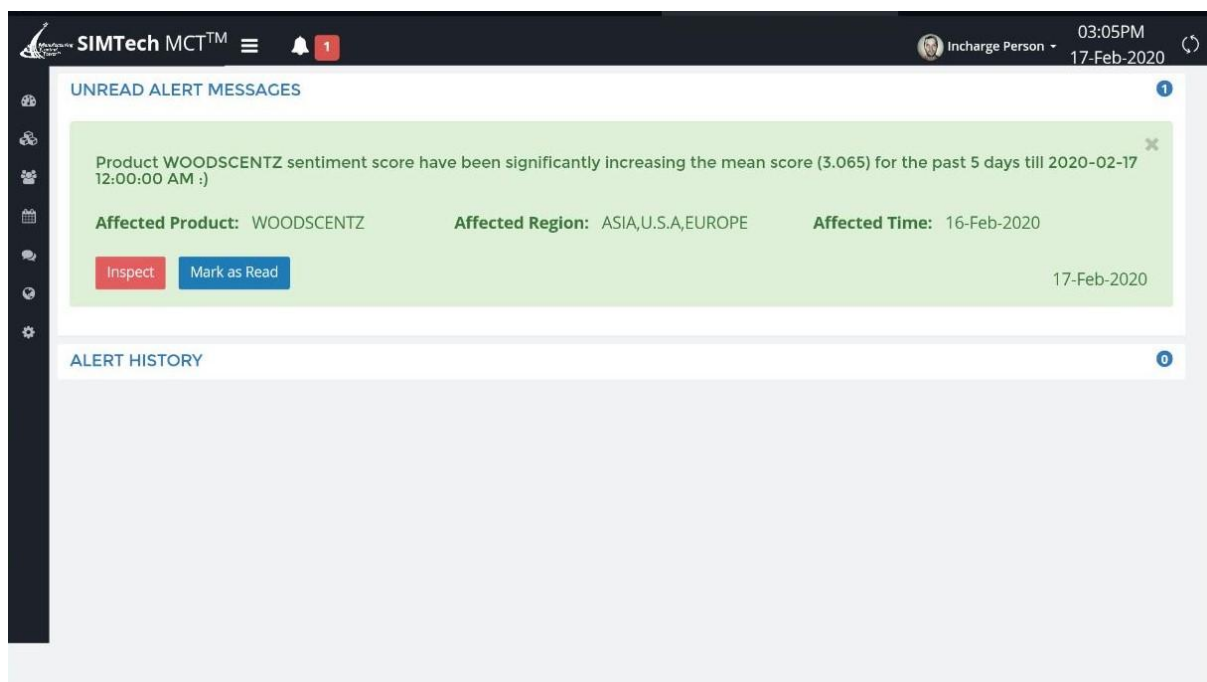
# DEMOGRAPHICS ANALYSIS

Sentiment Analysis also has the ability to categorise sentiments from across the globe, so that companies can have a broader view on how their products affect different populations, ethnicity, religions and such. This enables the companies to make strategic improvements based on this demographic feedback so they can serve their customers better.



# ALERT NOTIFICATIONS

Sentiment Analysis provides alerts based on a preset time frame, so companies can keep track of how their products fare over the duration. This is especially useful for products with seasonal demands, so companies can know how they fare during the period, enabling them to make necessary adjustments before the next seasonal demand begins.



## Conclusion

Sentiment analysis helps you learn more about who your customers are and how you can better engage

with them. Consumers gravitate to companies that seem to know them, and sentiment analysis will show you what you're doing wrong and what you're doing right.