

### Exploring Viewer Sentiment: Analyzing Viewer Feedback on ChatGPT Tutorial Videos on YouTube

#### **Presented by**

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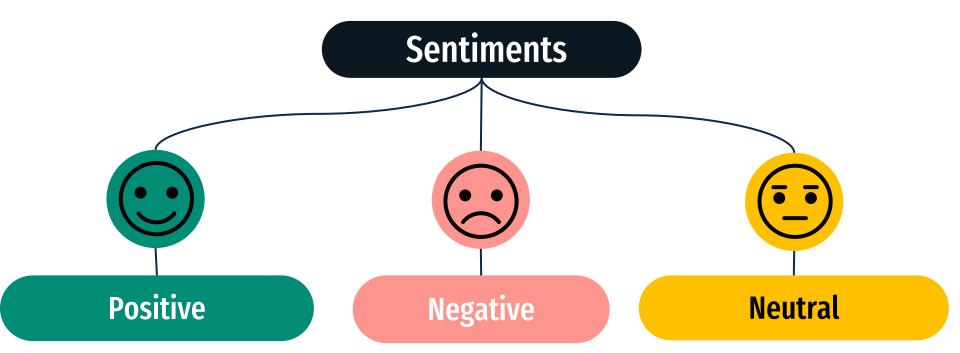


## **Overview on Sentiment Analysis**

Sentiment analysis, also known as opinion mining, is the process of using natural language processing (NLP), text analysis, and computational linguistics to identify and extract subjective information from text. Sentiment analysis is highly useful for businesses, researchers, and organizations as it helps gauge public opinion, monitor brand reputation, and understand customer sentiment in real time.

It is also widely used in areas like social media monitoring, customer feedback analysis, and market research to understand public opinion, brand perception, and user satisfaction.

By understanding emotions and opinions expressed in reviews, social media posts, or surveys, companies can make informed decisions to enhance customer experiences.



Positive sentiment refers to an expression of favorable emotions indicating approval toward a subject Negative sentiment refers to the expression of unfavorable emotions indicating criticism toward a subject Neutral sentiment refers to an expression neither positive nor negative indicating an impartial toward a subject

## **Overview:** ChatGPT

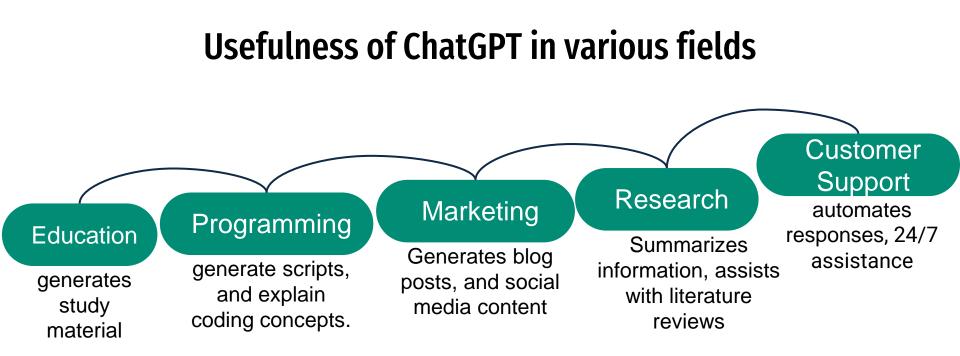
GPT-1 in 2018

GPT-3 in 2020 producing human like text responses with 175 billion parameters

The technological company OpenAI developed AI language model based Generative Pretrained Transformer (GPT)

GPT-2 in 2019 with text generation capabilities

ChatGPT in 2022 with tuned AI driven communication



Learning to use ChatGPT enables to optimize efficiency, creativity, problemsolving, and task automation and and understanding its functions and limitations helps in extracting contextually appropriate responses for both personal and professional use

## Scope of the study

The current research investigation only focuses on analyzing the sentiments of learners towards the tutorial videos on ChatGPT broadcast through YouTube.

The dataset is bound to the data that is readily accessible until February 20th, 2024, from Webometric Analyst and May 8<sup>th,</sup> 2024, from Mozdeh.



The dataset is solely confined to the tutorial videos on ChatGPT published on the YouTube platform.

## **Objectives of the Study**

- To evaluate the growth trends of the videos on ChatGPT on YouTube
- To know the durations of the selected YouTube tutorials videos of ChatGPT
- To rank the highest number of comments from the selected videos of ChatGPT
- To investigate the sentiment strength of the comments
- To visualize the top depicted terms in the comments of selected video

## Methodology

Phase 1

YouTube API keys were generated from Google Cloud Console



Phase 2

Using the extracted video ids, comments on the tutorials were collected from Mozdeh

ChatGPT as query, video Id was Extracted from Webometric Analyst



English tutorial videos on ChatGPT was undertaken and also manually verified



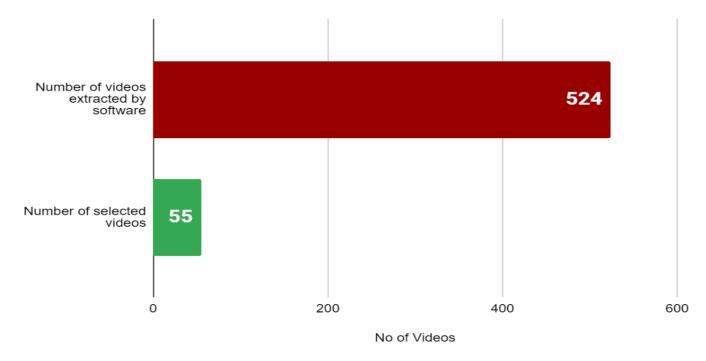
Sentiments strengths were identified using Mozdeh software

Top words from the comments was dicpicted from WordItOut

## **Data Analysis and Interpretation**

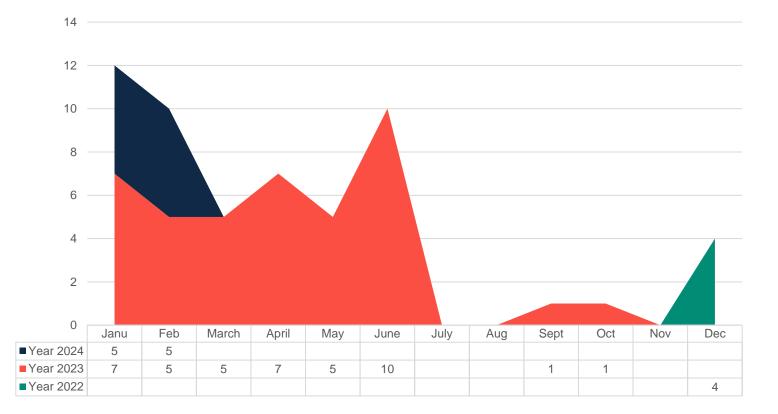


#### Depiction of selected videos for the study

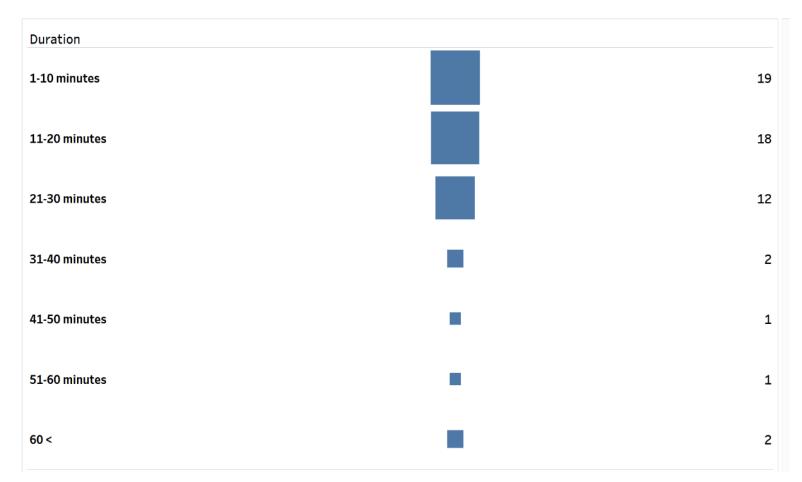


Among those 524, 178 videos are YouTube shorts which means that their duration is generally < 1 minute. This investigation also pulled out the videos of different languages other than English.

#### Year-wise distribution of the selected videos



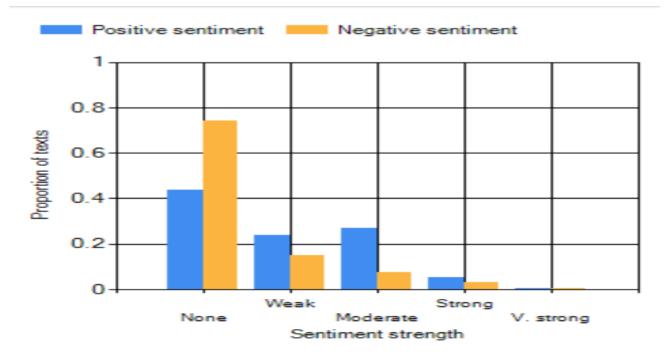
### Visualization of the duration of the selected videos



### Ranking of most prolific videos based on comments

Rank	Title	Comme nt	View Count	Like Count
1	ChatGPT Trading Strategy Made 19527% Profit (FULL TUTORIAL)	2237	2499490	45677
2	ChatGPT Tutorial - A Crash Course on Chat GPT for Beginners	2094	5536508	82307
3	How to use ChatGPT to easily learn any skill you want	2092	1759633	87711
4	Bulk Create Content with ChatGPT & Canva	1974	977303	31913
5	How to learn to code FAST using ChatGPT (it's a game changer seriously)		2229744	79556

#### Sentiment Strength of the comments



Among the 32,325 comments, the average positive sentiment of the comments is 1.9437 and the average negative sentiment is 1.4031 which suggests that positive comments expressing enthusiasm have outweighed negative sentiments about the tutorial uploads on ChatGPT.

#### Most prolific word frequency of the comments



Mozdeh was utilized to extract the top 1,000 terms straightforwardly. The loathsome terms are manually excluded, and the leading terms are selected and visualized using WordItOut from the word cloud.

# Conclusion

ChatGPT will be extensively utilized in the future for smooth human-computer interactions, tailored education, sophisticated customer service, and the creation of creative content.

AI will become a commonplace tool in daily life and the workplace as a result of its integration with cutting-edge technologies like augmented reality and the Internet of Things.

These developments will boost productivity and creativity across various industries, education fields and other sectors.

