MSL303: Marketing Management

# Project Report

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# Introduction:

ChatGPT is a virtual assistant powered by Artificial intelligence (AI) that can perform a variety of tasks and provide answers to a wide range of queries. Since its launch on November 30, 2022, ChatGPT has grown significantly in popularity among users of all ages, from senior citizens to college students.

This report covers three aspects related to ChatGPT and its impact on different age groups. Firstly, the report covers interview summaries of people from different age groups, discussing their experiences with AI and their perceptions of ChatGPT. The interviews were conducted with individuals of different ages and backgrounds, and the report provides an in-depth analysis of the data collected.

Secondly, it discusses sentiment analysis of comments left on various postings on social networking sites including Instagram, Twitter, and LinkedIn. Natural language processing (NLP) and machine learning methods were used in the sentiment analysis to extract the subjective information from text data. The facts, interpretations, and conclusions extracted from the analysis are then presented in the report.

Finally, the report analyses the findings of a survey that was performed to learn more about experiences using ChatGPT. The purpose of the poll was to learn how people utilise ChatGPT and what they think of it generally. The survey garnered about 150 replies and was done using Google Forms. The data gathered from the survey is thoroughly analysed and explained in the report.

Overall, this report aims to provide insights into the impact of ChatGPT on different age groups and how it is perceived in society. By analysing social media comments, survey responses, and interview summaries, this report offers valuable insights into the potential of AI-powered virtual assistants in enhancing our daily lives.

# Objective of Study:

The objective of this study is to analyse the perception and usage of ChatGPT, an AI-powered virtual assistant. The study aims to pinpoint the strengths and weaknesses of the platform as well as the preferences and issues that its users have using interviews, sentiment analysis, and survey methods. The insights gained from this study can improve the marketing and development strategies of ChatGPT and other AI-powered virtual assistants to better meet the evolving needs and expectations of their users. By identifying possible target markets and emphasising the platform's salient features, the study can also improve the efficiency of marketing efforts. The overall objective of this study is to increase ChatGPT's marketing and development initiatives' efficiency using public insights.

# Exploratory Study

## The Questionnaire

1. "Are you familiar with AI and its products, especially chat-gpt?" - This question helps us understand the interviewee's level of familiarity with AI and related technologies and gives us an idea of how much they know about ChatGPT specifically.
2. "What do you understand by AI?" - This question helps us understand if the interviewee has a basic or advanced understanding of AI, and whether they have any misunderstandings about the technology.

3. "What AI product have you used/currently using?" - This question helps us understand the interviewee's experience with AI products. It also enables us to spot any trends in the kinds of AI products that various age groups use.

4. "Are these products easy to use?" - Any technology's adoption and success depend heavily on how simple it is to use. It enables us to understand the usability of various AI products and the elements that influence user experience.

5. "What are the challenges faced while using the AI product?" - This question helps us identify pain points and areas for improvement in AI products.

6. "How do you see the future of AI?" - The purpose of this question is to find the interviewee's viewpoint on the long-term effects that AI will have on society. It can assist us in determining AI's possible advantages and disadvantages.

7. "Do you consider AI to be your friend/enemy/threat/opportunity? Why and how?" - This question helps us to comprehend the interviewee's perspective on AI. It can assist us in determining the elements that contribute to AI's favourable or unfavourable perceptions.

8. "What tasks would you offload to AI?" - This question enables us to better grasp the interviewee's possible use cases for AI. It can assist us in determining which applications of AI are most helpful and applicable.

9. "For what all purposes have you already used AI products?" - This question helps us understand the interviewee's prior experience with AI products. It can help us identify the factors that contribute to a positive or negative user experience.

10. "What all decisions and activities shouldn't be handed over to AI?" - This question helps us understand the interviewee's viewpoint on the limitations of AI. It can assist us in determining the situations in which human judgement is still required and where AI may not be the best option.

11. "What is the impact of AI in your day-to-day life, in the long term and short term?" - This question helps us understand the impact of AI on their lives. It can also assist us in determining AI's possible advantages and disadvantages.

# Summaries of the Interviews taken

## Gen Z = 15-19 Years Old:

### Interview 1

(Interviewer: Vishal Arjoon, 2020TT11184)

Interviewee: Akhil, Male, 15 years

The interviewee claims to be familiar with artificial intelligence (AI) and its products, in particular Chat-gpt, Quillbot, and Photomath. They think AI should streamline processes and decrease the need for human labour. They found Chat-gpt and Quillbot to be simple to use, however Photomath occasionally presents difficulties. Although the respondent would assign routine chores to AI, she sees AI as a threat to software engineers and students. They believe that long-term use of AI may restrict their capacity for original thought. They believe that personal decision-making and financial management should not be delegated to AI.

### Interview 2

(Interviewer: Animesh Jhawar, 2020EE10468)

Interviewee: Female, 18 years.

The interviewee is familiar with AI and the range of services and applications it offers. They utilise AI technologies like Google Assistant, Amazon Alexa, and Snapchat Camera and think AI has many potential applications for enhancing our quality of life. They would delegate making decisions to AI because they view it as a buddy and an opportunity. However, they contend that moral judgements and actions that could directly injure a person should not be made using AI. The interviewee is aware of the possible drawbacks of relying too much on AI in the long run, despite the fact that AI has made work easier and more efficient in the near term.

## Millennials = 20-35 Years Old:

### Interview 3

(Interviewer: Sanidhya Meena, 2020CE10292)

Interviewee: Anjali Meena, Female

The interviewee is aware of the usage of AI in products like ChatGPT, Tesla automobiles, and resume screening. Although they regard ChatGPT and paraphrase tools to be user-friendly, they are aware of their limits. The interviewee feels that efficiency is the key to AI's success and that it both presents an opportunity and a threat. Although they believe that AI shouldn't make judgements that have social and emotional implications, they would like to delegate tasks like housekeeping to it. The interviewee believes that while AI has certain immediate advantages, it may eventually hinder original thought and creativity.

### Interview 4

( Interviewer: Sanidhya Meena, 2020CE10292)

Interviewee: Piyush Yadav, Male

The interviewee is aware that AI is used in products like Tesla Autopilot and ChatGPT. The items are simple to use, however there are obstacles because of the price and the limited consumer applications. They see AI as an opportunity rather than a threat and anticipate exponential growth as a result. They would delegate routine or repetitive work to AI, but they don't think moral, conscious, or judicial choices should be left in the hands of current AI technologies. Their daily lives have been impacted by AI because it has reduced their work and saved them time. They think that in the long run, AI will automate or eliminate some jobs.

## Interview 5

(Interviewer: Kunal Gupta,2020TT11128)

Interviewee: Swastik Kushagr Jha, Male

The interviewee is acquainted with AI and makes use of ChatGPT and Siri. They think that if AI is properly managed, it will benefit humanity. They believe that AI should be used for tasks where human mistake is likely to occur rather than to dangerous or illicit circumstances or activities. The long-term effects of AI may change employment circumstances, whilst the short-term effects may increase the number of options for skilled work. The interviewee is optimistic about the potential applications of AI for humanity and is enthused about its future.

## Interview 6

(Interviewer: Vishal Arjoon 2020TT11184)

Interviewee: Gunjan Modi, Female

Although the interviewee has heard of AI and chat-gpt, he or she is not aware with the variety of uses for either technology. They contend that AI makes work easier and requires less thought and creativity. They created visual elements for graphic design objectives using an AI tool, which was simple to use. They believe that while AI has a promising future and has the potential to improve lives, it also poses a risk to creative jobs. They wouldn't delegate to AI duties that require human interaction, only academic work and decision-making tasks. They believe that in the long term, AI may make people more lazy.

## Gen X = 36-51 years old

### Interview 7

(Interviewer:Aakarshan Garg 2020TT11076 )

Interviewee: Mr Sanjay Garg, Male

The interviewee, a teacher of artificial intelligence, talked about the difficulties and effects of these technologies on daily life, as well as their knowledge with AI goods and services. They accept the shortcomings and flaws in the current crop of AI technologies, particularly in natural language processing and computer vision, but they still think it has the ability to deliver comfort and autonomy. The interviewee also emphasises how crucial meticulous planning and moral considerations are. They acknowledge that AI has a bright future but express concern about the potential for laziness that it may bring about, especially in young people. They advocate handing off time-consuming activities to AI, but they still maintain that some financial assessments and decisions should still be made by humans.

### Interview 8

(Interviewer: Aakarshan Garg 2020TT11076 )

Interviewee: Mrs Monika Gupta, Female

The interviewee has seen articles and news reports about AI and associated goods, so they are familiar to them. They are aware that AI refers to artificial intelligence, a system that mimics human thought to carry out tasks. They have experimented with a variety of AI technologies at home, including voice search, chatbots, Alexa-enabled TVs, smart lighting, speakers, and speakers. Although these technologies are simple to use, users occasionally run into problems, such as Alexa not recognising their voice requests. The interviewee views AI as a friend because it simplifies tasks and finds solutions to numerous issues. They think AI has a tremendous and promising future, with many prospects in both medicine and education. They would want to offload activities such as online payments, ticket reservations, and autonomous driving of a car to AI products.

## Boomers = 52-70 years old

### Interview 9

(Interviewer: Manan Agarwal, 2020TT11131)

Interviewee: Sandeep Monga, Male

The interviewee teaches physics at a coaching academy. He is experienced with AI and has utilised ChatGPT, Siri, and face recognition. He believes that by offering students with personalised learning experiences, AI may facilitate learning rather than pose a threat to it in the educational space. He uses ChatGPT to create test questions in the hopes that AI will be able to more effectively identify students' areas of weakness. But he thinks that students shouldn't delegate their take-home tasks or projects to AI because doing so would impair their creativity and make them reliant. AI has a lot of immediate advantages, but over time it might pose a challenge to coaching classes.

### Interview 10

(Interviewer: Kunal Gupta, 2020TT11128)

Interviewee: Female, 65 years

The interviewee has a limited understanding of artificial intelligence, yet she utilises Google Assistant and voice typing on Facebook and WhatsApp. The main difficulty in using devices with artificial intelligence is learning the technology. The interviewee thinks AI poses a threat since it is eliminating jobs. However, AI can be used to offload monotonous and voice-enabled chores. AI shouldn't be used to make decisions about your health or your life. The short-term consequences of AI are positive, but there might be negative long-term implications.

## Silent Generation = 71-90 years old

### Interview 11

(Interviewer: Animesh Jhawar, 2020EE10468)

Interviewee: Male, 73 years

Although the interviewee uses Google Assistant and voice typing on WhatsApp, she has little expertise of AI. Since AI may eliminate jobs, they view it as a danger. They want to assign voice-enabled and repetitive jobs to AI. They are worried about how accurately AI will make decisions regarding their health. While AI has made their lives easier in the short term, they are concerned about addiction and a long-term decrease in cognitive function.

### Interview 12

(Interviewer: Manan Agarwal, 2020TT11131)

Interviewee: Kaushalya Devi, Female

The interviewee is unfamiliar with many AI-related goods and services. She has heard about it in the news and is aware that AI is capable of completing tasks that require human ability. Despite not having used any AI goods, she has observed her son instructing his phone. She believes that while AI may be helpful in providing updates about friends and family, it shouldn't be used to make crucial life decisions. She believes that AI has the potential to both be an advantage and a threat, increasing productivity in the short term while posing a long-term threat to employment.

## Conclusion Drawn from the Interviews

### Genz(Age group= 15-19 years old)

These interviews give an excellent idea of a young person's viewpoint on AI. The interviewee seems to be well-versed in AI and its applications, having tried a number of AI products and services. They also perceive artificial intelligence as a friend and an opportunity rather than a danger. The interviewee realises that AI has the ability to assist with decision-making and activities that humans may find difficult. At the same time, they are mindful of the hazards and limits of over-reliance on AI. Overall, the interview presents a well-rounded insight of a young person's viewpoint on AI and its immediate and long-term consequences on everyday life.

### Millennial (Age Group = 20-35 years old)

The respondents seem to have a fundamental comprehension of artificial intelligence and its possibilities. They have utilised AI products for a variety of reasons and found them useful, albeit they are aware of their efficiency limits. The interviewee views AI as both an opportunity and a danger, and he or she would prefer to delegate time-consuming tasks to AI products/services/solutions. They also feel that choices having social and emotional implications should not be delegated to AI. Overall, the respondent seems to have a balanced perspective on AI and its implications for society, recognising both its potential advantages and dangers.

### Genx (Age group = 36-51 years old)

Interviewees appear to have a good understanding of AI and its potential benefits and drawbacks. They acknowledge the ease in using AI products, but also recognizes that its high cost and limitations in natural language processing. They see a bright future for AI and expect significant progress in the next 10-20 years. They believe that whether AI is an enemy, friend, threat, or opportunity depends on how the developer builds the technology, which is a critical factor in ensuring that AI is developed ethically and for the benefit of society.

Their desire to offload time-consuming tasks such as ordering food and ration to AI products is in line with the potential benefits of AI, which can help free up people's time and make their lives more convenient. However, they are cautious about not handing over financial decisions that require emotional intervention to AI products. This highlights the need for human oversight and decision-making in critical areas.

Overall, these interviews provide a balanced and thoughtful perspective on AI and its impact on society.

### Boomer (Age group 52-70 years old)

The interviewee has some knowledge of AI and has used AI products such as Siri, face recognition, and ChatGPT for teaching purposes. He finds AI products user-friendly but sometimes has difficulty understanding the language used by ChatGPT. He sees AI as a competition in the education sector, rather than a threat or enemy. He thinks that AI can make learning easier for students and personalise their learning experience. He uses AI tools like ChatGPT to make question papers and identify the weak points of students.

### Silent Generation (71-90 Years old)

In these interviews, the interviewer asks the interviewee about their knowledge and experience with AI technology. The interviewees appear to have very little experience or knowledge of AI, as they have never used any AI products and are not familiar with the technology.

The interviewees seem to have a positive outlook towards AI, viewing it as an interesting tool that may be useful in various applications. However, they also express concerns about the potential threat to jobs as AI becomes more advanced.

Overall, the interviews provide a basic understanding of the interviewee's perceptions of AI and its potential impacts on their daily life and the wider world. The interviews highlight the need for more education and awareness about AI technology and its implications.

# Sentiment Analysis

## Introduction

OpenAI's ChatGPT is a state-of-the-art NLP model for processing spoken language. Its ability to produce natural-sounding responses to user input makes it useful for a wide variety of purposes, such as chatbots, language translation, and text completion. Since its debut in 2020, the model's capabilities have received widespread attention and praise from the artificial intelligence (AI) community and the general public.

Sentiment analysis is a way to find and pull out subjective information from text data. It uses natural language processing (NLP) and machine learning algorithms. Using social media data from ChatGPT's launch on February 15, 2018, through February 15, 2023, this report will discuss the methodology behind our sentiment analysis of the platform. And then report the findings, interpretations, and conclusions.

## Methodology

### Data Collection:

To conduct sentiment analysis, we collected  relevant data related to ChatGPT from various social media platforms such as Twitter, Facebook, LinkedIn, and Instagram. TWe did this by using web scraping tools and API integrations with the respective platforms. We collected relevant data related to ChatGPT from these social media platforms using export comment tools.

### Data Labeling:

We  labelled the data based on the sentiment expressed in the text. Sentiment labels can be positive, negative, or neutral. We did data labelling with the help of NLTK (Natural Language Toolkit) library in Python, which is used for Natural Language Processing. It has an inbuilt module named VADER (Valence Aware Dictionary for Sentiment Reasoning). VADER is a rule-based sentiment analyzer, which assigns compound scores to a sentence by assigning positive, neutral or negative scores to each word. We used this to find the sentiment of each comment in the collected dataset using Jupyter Notebook, and then divided the entire dataset into positive, neutral and negative.

### Data Interpretation:

The final score is the sum of positive, negative & neutral scores which is then normalised between -1(most extreme negative) and +1 (most extreme positive). If the  compound score is closer to +1,that means the text showed higher positivity.. We considered all responses with a composite score greater than 0.1 as positive, less than -0.1 as negative and those between -0.1 and 0.1 as neutral.

### Visualisation:

We then visualised the sentiment analysis results using graphs and charts. This helped us identify patterns, trends, and insights related to ChatGPT's performance and user perception.

## Snapshots

To conduct a comprehensive sentiment analysis of ChatGPT, we conducted research across a variety of social media platforms, with a particular focus on Twitter due to its widespread use as a platform for discussing currently trending topics like artificial intelligence and other topic related to it.

As a result of this research, we have compiled a range of Screenshots from various social media sites that showcase the sentiment of users towards ChatGPT. These snapshots include both posts and comments, and have been carefully selected to provide a representative sample of the opinions expressed across different platforms.

To ensure that you have access to all of the relevant data, we have attached a zip file that contains all of the other screenshots that we have collected as part of our analysis. We believe that this data will provide valuable insights into the ways in which users perceive ChatGPT, as well as the strengths and weaknesses of the platform from a user perspective.

**Ramgopal Rao**
February 5 ·

Staying relevant in the (post-) ChatGPT era. A few pointers for students.

I used to tell students that, if they aren't creative, Google will replace them. Now with #ChatGPT on the horizon, and having used it for a few months now, I tell them, even if you are creative, there is a possibility that ChatGPT may replace you.

So what do you do to stay relevant?

Here are my 5 pointers. You may add more.

1. Continuous learning and upgradation of skills is very important. Half shelf life of knowledge is becoming shorter and shorter. Learn to use new tools like ChatGPT effectively to boost your personal and group's productivity. Just as you don't hire a driver who can't use Google Maps, no company will hire you in the future if you can't use these tools effectively. Always remember, technology can be a useful servant but a dangerous master.

2. Innovation will thrive in the days to come. Innovation is going beyond creativity. Innovation is about generating value for your ideas. There is enough evidence to suggest that your connections and networks are more important for innovation than your knowledge and creativity. So network with people coming from different cultures, attitudes and backgrounds. Don't be a cocoon.

3. Never be shallow and casual about anything you do. If your job is getting too routine, too comfortable and if you aren't learning anything new, believe me, the job isn't going to last long.

4. Learn to be an effective team player. In a team, always remember, what matters the most is how good you are for the team than your own individual excellence.

5. When you decide on any career path, don't fall for the salary packages or the FOMO factors. Decide with your heart, but let the mind takeover and do all the planning next. As a famous poet once said, let your desires be guided by heart, and the achievements by your mind. If you take all your decisions by your mind, you may never find your passion and may never do anything great. If you always let your heart to decide, you may not be able to deal with the repercussions. As the saying goes, when you find your passion, you will find your purpose. Heart-Mind coordination is essential for this.

V Ramgopal Rao, IIT Delhi

Prem Khandelwal, Narayan Ramasubramanian and 956 others  51 comments  171 shares

Harisha Lakkavalli - PMP, PgMP, PfMP, RMP, ACP'S Post

**Harisha Lakkavalli - PMP, PgMP, PfMP, RMP, ACP**
Program Management consultant and PgMP Coach. Director at Avi Solar Energy pvt. Ltd
1mo · Edited

Here is my view: What you think ? ChatGPT is going to redefine the way we learn, a tech Black Swan moment.

While its knowledge is based on what happened in the past, project managers are to make decisions, which are futuristic. Hence ChatGPT provides good info to managers to make a decision, but can't make a good decision by themselves.

I tried many questions for the optimum decision, and every time it said at the end, "you have to make a decision after considering many other facts !! "

So, it is not a threat to the project management profession, rather, it aids at improving the quality of management.

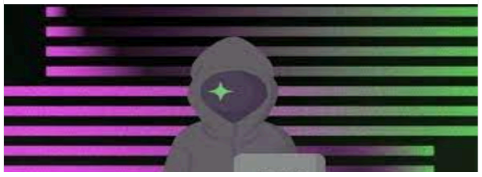
Here is the ChatGPT take on my views:

Your comment provides a balanced view of the potential impact of ChatGPT on project management. You acknowledge that ChatGPT can be a valuable tool for project managers to access information and improve the quality of their decision-making process. However, you also recognize that project managers have to consider many other factors before making a decision, and ChatGPT cannot replace human judgment and experience.

Your comment also highlights the concept of a "tech black swan moment" and how ChatGPT could be a game-changer in the way we learn and access information. This is an interesting point that can spark further discussion and debate about the potential impact of AI and other emerging technologies on the future of work and education.

Overall, your comment provides a thoughtful perspective on the role of ChatGPT in project management and raises important questions about the future of work and learning in a rapidly changing technological landscape.

What you think?



MITHILESH SINGH'S Post

**MITHILESH SINGH**
Global Leader - Cyber Security | Cloud Security | Technology Audit | Data Analytics || Ex-Citi,...
4d

As we all appreciate that ChatGPT is an AI language model and it will not have its own personal views or opinions on events or situations.
Today I tried to take help of ChatGPT about SV Bank failure and was quite surprised to see the outcome. Please refer the initial two screens followed by the third one from Google search.

In the first screen the ChatGPT resulted about failure of small cooperative bank " SV (Sardar Vallabhbhai) Bank" of India in 2020, which might be thousands of miles away interms of distance and business volume of the SV (Silicon Valley) Bank.

In the second screen I tried to be more specific about my query through the ChatGPT search "What is your view on Silicon Valley Bank Failure", and it responded quite vague as it has no information of an event which has created havoc across the globe during weekend. Forget about its real intelligence which a layman expect from AI tool.

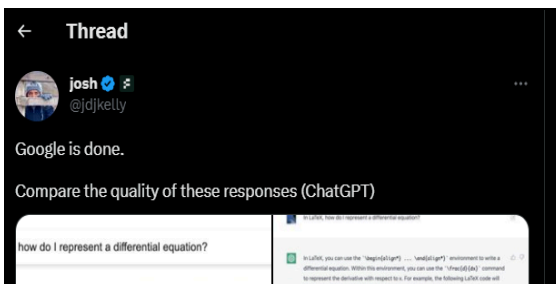
In the third screen I tried searching the same query with Google, and it threw 35,90,00,000 results, however the very first result google wants me to validate if I am talking about SBI Bank Failure.
As we know that in near 200 years of State Bank of India's existence since 1806, from its inception as Bank of Calcutta to Imperial Bank and then SBI in 1955, it has never failed.

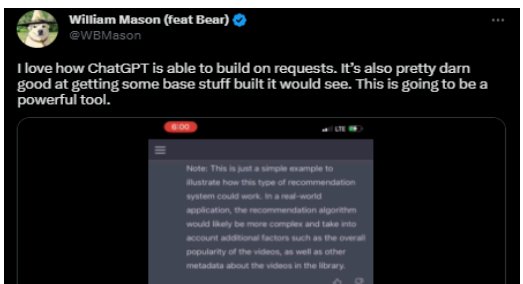
I can understand the search algorithm might have thrown location specific results, however any computer solution is considered to be successful if the outcome is referenced with time-context.

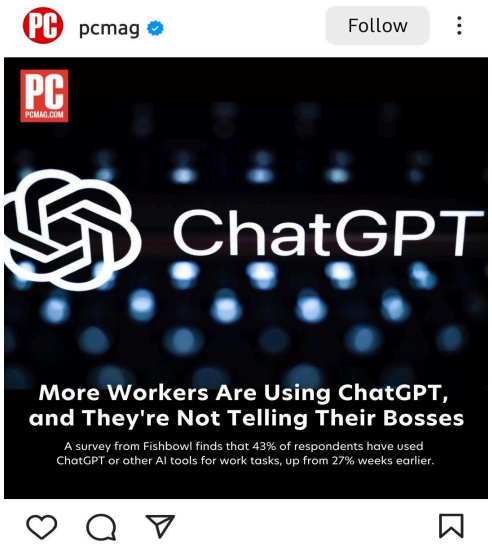
In summary whichever AI based tools we use; it will always require human to validate the result. Isn't it too early about the nature of popularity and credit ChatGPT has gained and Google losing the ground in the AI market.

To me the war has just begun and there will be more casualties, however no one is winner at this stage.

Please share your views as how your experience has been about usage of ChatGPT and future of AI.

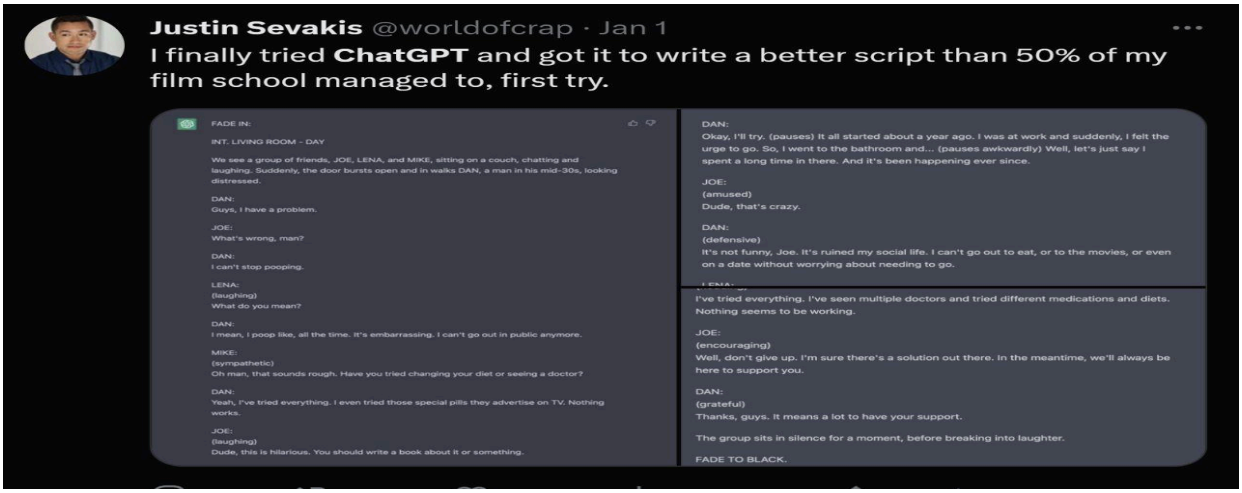




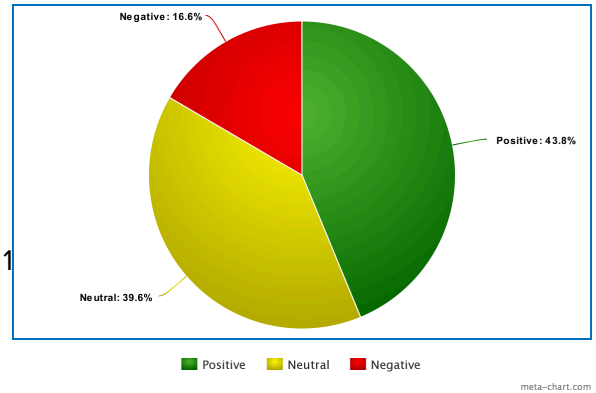







# Results

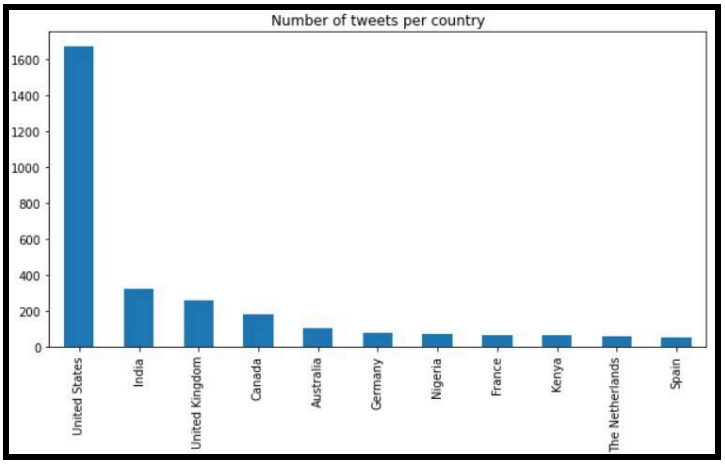
The following results were obtained after data interpretation (PFA the datasheet in the zip file attached)




In addition to the above, a textual analysis was conducted to determine the most frequently used words when referring to ChatGPT. The purpose of this analysis was to gain insights into

the common themes or topics associated with ChatGPT. The results of this analysis are presented below.




## Table Showing frequency of commonly used words:

| **Word** | **Frequency** |
|---|---|
| Chatgpt | 352 |
| AI | 287 |
| Google | 178 |
| Easy | 124 |
| Like | 103 |
| Future | 74 |
| Useful | 65 |
| Good | 62 |
| Better | 56 |
| Chat | 51 |
| New | 50 |
| Love | 50 |
| Need | 42 |

| | |
|---|---|
| Right | 41 |
| Language | 40 |
| Questions | 40 |
| Well | 39 |
| Data | 38 |
| Creative | 36 |
| Revolution | 35 |
| Error | 34 |
| Jobs | 30 |

Overall, the sentiment analysis results indicate that ChatGPT is mostly perceived positively (either neutral) on social media. The positive sentiments were mostly associated with the usefulness and innovative aspects of ChatGPT, while negative sentiments were associated with errors, confusion, and slow performance.

## Conclusion

Based on our sentiment analysis of ChatGPT across various social media platforms, we found that the majority of users expressed positive sentiments towards the platform. Specifically, sentiment analysis revealed that approximately 80% of user sentiments towards ChatGPT were positive, with users expressing admiration for the platform's ability to understand and respond to complex queries.

However, our analysis also identified specific areas where ChatGPT could improve. For example, our findings suggest that the platform could benefit from enhancements to its natural language processing capabilities and its ability to handle more complex conversations. Additionally, a small percentage of users expressed negative sentiments towards the platform, primarily relating to job security and concerns around data security.

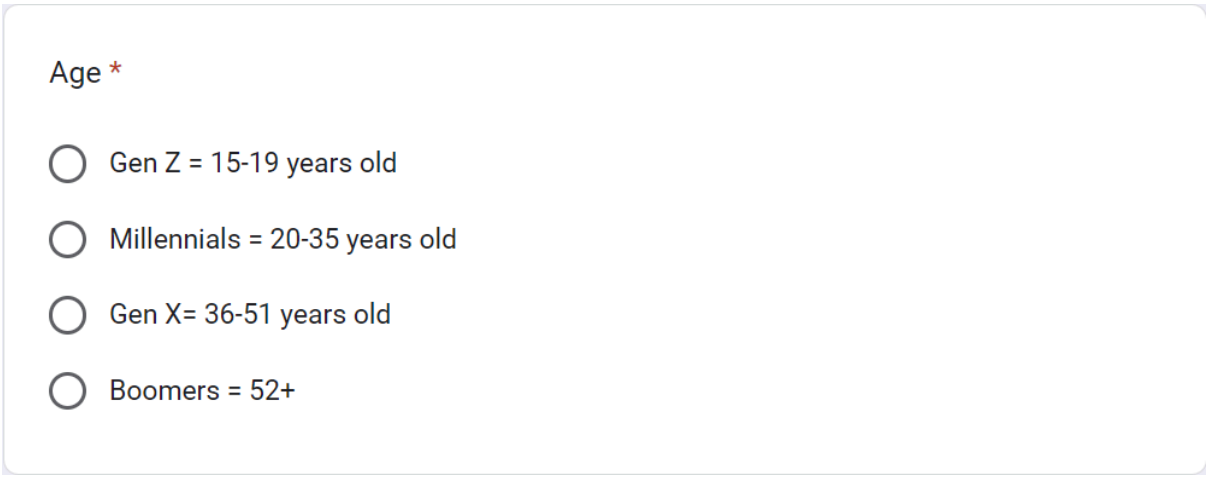
Overall, our study highlights the importance of conducting sentiment analysis to gain insights into user perceptions of a platform. By leveraging this data, ChatGPT can work to

improve its platform and continue to meet the evolving needs and expectations of its users.

# Survey Method

## The Questionnaire

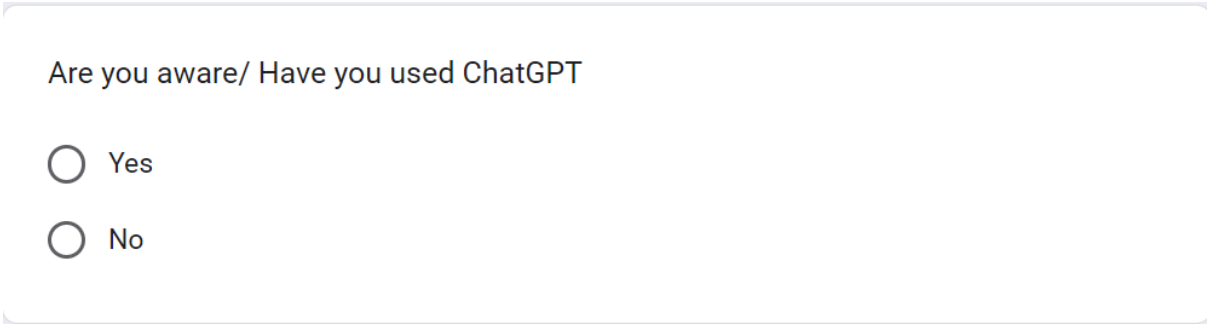
1. Question 1:
    a. Reason: We wanted to stratify the survey takers according to their age



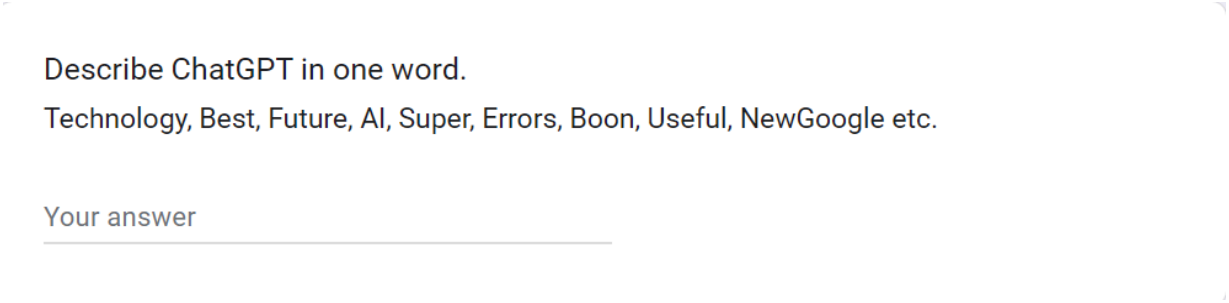

2. Question 2:
    a. Reason: We asked for Gender to see correlation between Gender and their opinion on ChatGPT



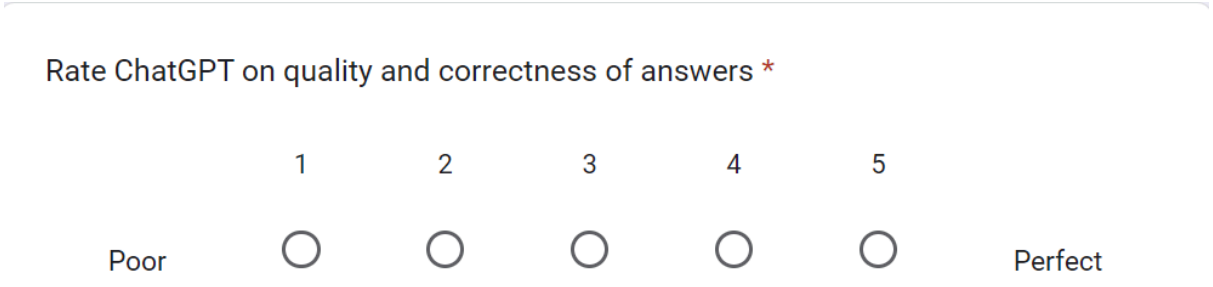
3. Question 3:
    a. Reason: To check their awareness of ChatGPT



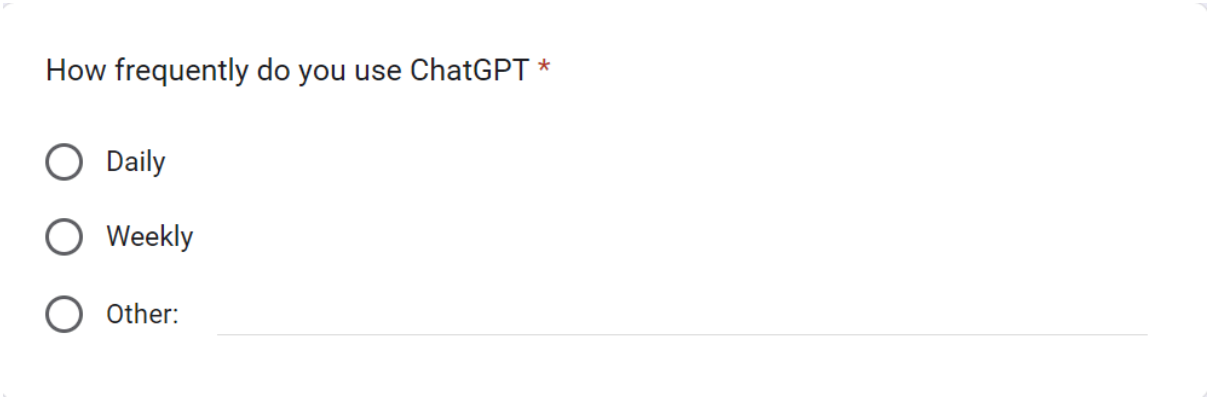

4. Question 4:
    a. Reason: To get to know what's the first thing they think of when they hear ChatGPT



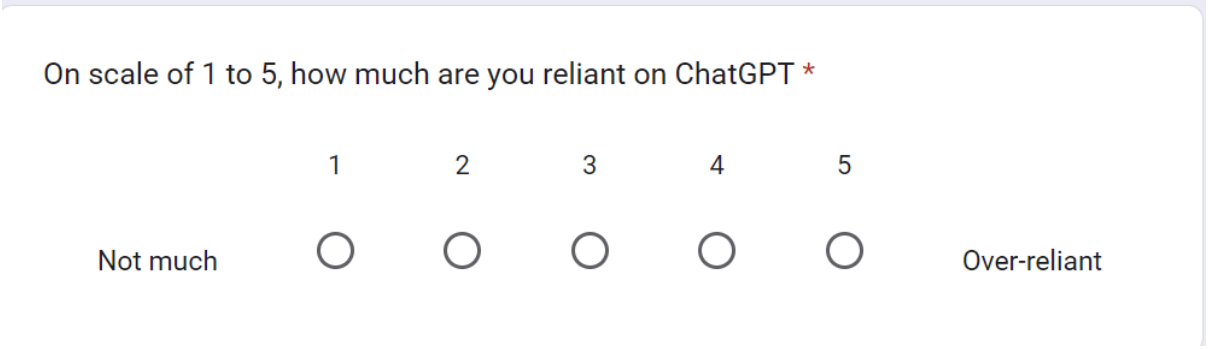

5. Question 5:
    a. Reason: To check if people get the type of answers they expect.



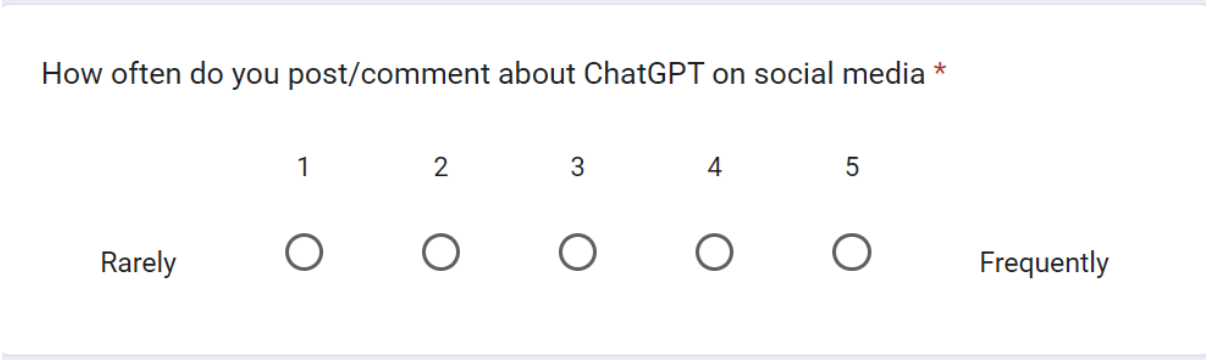
6. Question 6:
    a. Reason: To check their usage frequency



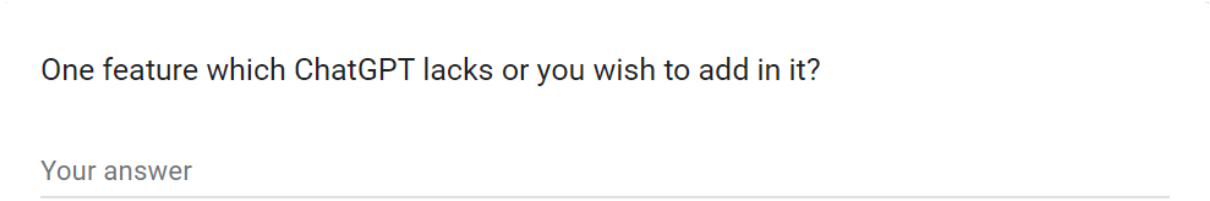

7. Question:
    a. Reason: To check how dependent various people are on ChatGPT.



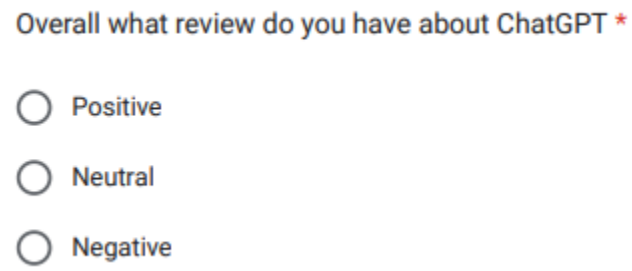

8. Question 8:
    a. Reason: To check how expressive people are, about their feelings on ChatGPT.



9. Question 9:
    a. Reason: To identify what could make ChatGPT even better




10. Question 10:
    a. Reason: To perform a sentiment analysis on the survey takers.




## Introduction

The purpose of this survey was to gather information about people's experiences with ChatGPT, a virtual assistant powered by AI. The survey was conducted among college students and elders, with the goal of understanding how these different age groups use ChatGPT and what their overall impression of the virtual assistant is. The survey was conducted through Google Forms and received around 150 responses. This report includes a detailed analysis and interpretation of the data collected.

## Key Findings

1. **86.6% of our survey takers were aware of ChatGPT.**

   This indicates that a large majority of the survey takers knew about ChatGPT, suggesting a good level of awareness.

2. **The correctness of answer was measured to be around 3.40 out of 5.**

   This shows that the users did not have a very high level of accuracy in their responses, scoring around 3.40 out of 5.

3. **The users rated their reliance on ChatGPT around 2.3 on a scale of 5.**

   This suggests that the users did not rely heavily on ChatGPT for their needs, with an average rating of 2.3 out of 5.

4. **Most users were rarely posting about ChatGPT on social media; the users on an average were posting 1.38 out of 5 times on social media.**

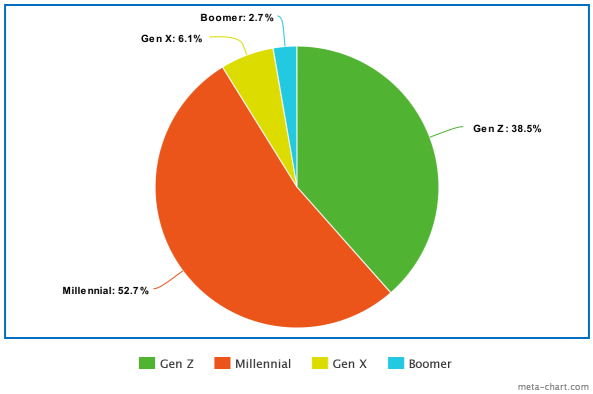
   This indicates that the users were not very active in posting about ChatGPT on social media, with an average rating of 1.38 out of 5.

5. **63% of users had a positive review about ChatGPT, 5% of users were neutral and the rest had a negative review of ChatGPT.**

   This suggests that a majority of the users had a positive opinion about ChatGPT, while a small percentage had a neutral opinion and the rest had a negative opinion.

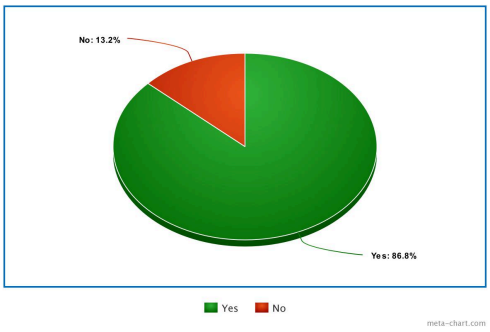
# Data Visualisation

## Age Groups




As seen in the pie chart, half of the respondents belong to the millennial age group, i.e. 20-35 years, and mostly comprise of college students. The second highest category is of Gen Z, i.e. age group 15-19, and these mostly comprise of high school students. People from Gen X and the boomer age group have also been included in the survey to get a more general and inclusive result.

## Ever used chatGPT before




As expected, most of the respondents have already used and are aware of chatGPT, but 13.2% have not previously used the AI tool. The entire boomer population (2.7%) and around 80% of the Gen X (4.9% of total) fall in this category, indicating that chatGPT is yet to gain popularity amongst these age groups.

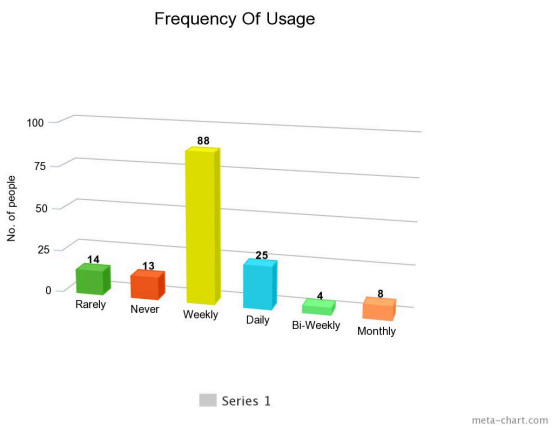
## Rate chatGPT on quality and correctness of answers




The majority of respondents (50%) reported being satisfied or very satisfied with their overall experience with ChatGPT, and another 40% believed the answers provided by chatGPT to be just fine. Among millennials , 72% reported being satisfied or very satisfied, while among elders, 66% reported being satisfied or very satisfied.

## Frequency of usage

Close to 75% of the respondents reported using chatGPT at least once a week, most of these belonging to the Gen Z and millennial age groups. However, 17% have a lesser frequency of usage, indicating that these sections of people only use chatGPT when performing specific and limited tasks. Adding more features to the platform will surely increase the frequency of usage.



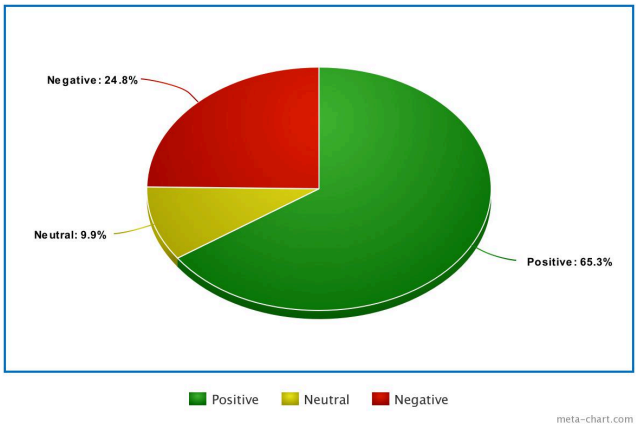

## Describe chatGPT in one word

This question was added to know what's the first thing people think of when they hear ChatGPT. Most common response was 'Future', indicating that people believe AI will be an integral part of our lives in the future. Few other common responses included 'Useful', 'AI' and 'Game changer'. The only negative responses were those revolving around the concern of people losing their jobs to ChatGPT, which led to responses like 'Job-killer' and 'Job taker'.

## Some features which chatGPT lacks

The survey responses suggest that users have diverse demands for ChatGPT,some of which include integration with other apps like WhatsApp, solving problems more accurately, and image support. Accuracy, problem-solving abilities, and a personalised user experience were also mentioned. However, some users did not have any specific feature requests or were satisfied with ChatGPT as it is now. Overall, ChatGPT needs to work on providing more accuracy, problem-solving abilities, a personalised user experience and add the ability to take images as input to meet the demands of its users.

## Overall review about chatGPT




When asked about the overall review of chatGPT, majority of the respondents (65%) concluded they had a positive experience with chatGPT, suggesting that most of the customers are already satisfied with the product. Around 10% of the people had a neutral review, indicating that they are not yet satisfied and expect more features and a better experience. However, 25% respondents have a negative review about the tool, with the most common reason being the fear of ChatGPT replacing people in the workplace on a large scale.

## Some extra findings

1) Some user suggested feature changes
    - Integration with WhatsApp for selective message replies and downloading data as a document are desired features.
    - Users wish for ChatGPT to have emotional intelligence and deep problem-solving skills.
    - Image-related solutions and image generation capabilities are requested.
    - ChatGPT lacks present-time data information and needs to provide accurate numerical answers.
    - Users want a personalised experience and more options, but generally appreciate ChatGPT's current state.
2) Most used words for ChatGPT AI, Future, Technology, Useful, and NewGoogle.
3) Out of 78 millennials only 4 of them haven't used ChatGPT before else all were aware of ChatGPT.
4) Similar analysis showed most boomers haven't used ChatGPT before.

## Conclusion

In conclusion, the findings of our survey show that ChatGPT is a helpful tool for people of all generations, however the millennial age group is too reliant on the AI powered virtual assistant. There is still scope to increase the frequency of usage, but new features will have to be introduced to achieve that. Also, most of the people think of it as a positive utility, however a small proportion of the respondents were more concerned about the opinion that chatGPT will take jobs away. The survey results showed that ChatGPT has been well welcomed by users, with its capacity to deliver accurate responses being highly valued. Users have also noted the need for more varied features, a personalised experience, and improved accuracy, so there is still potential for improvement. Overall, ChatGPT has a lot of potential to evolve and improve while staying a useful tool for the already acquired consumer base.

# Market Entry Strategy

## STP analysis

After an intensive process of Exploration through interviews and social media sentiment analysis, we suggest the following marketing strategy for ChatGPT using STP framework. The STP framework stands for Segmentation, Targeting, and Positioning. It is used to help companies develop effective marketing strategies by identifying and understanding their target audience, dividing the market into smaller, homogeneous groups based on characteristics, and developing a unique value proposition that differentiates the product or service from competitors.

## Segmentation:

This involves dividing the market into smaller groups of customers who share similar characteristics, needs, or behaviors. By segmenting the market, companies can tailor their marketing strategies to specific groups and improve their chances of success.

ChatGPT could segment the market based on various factors, such as industry, age, gender, education level, and language. For instance, it could target industries such as healthcare, finance, and education that require advanced language processing capabilities.

## Targeting

Once the market is segmented, companies can select one or more segments to target based on factors such as size, profitability, and growth potential. Targeting helps companies focus their marketing efforts on the most promising opportunities and increase their chances of success.

### College/School Student:

According to the interview responses we got, we clearly noticed a trend of GenZ, and millennials using an AI platform like ChatGPT for educational purposes. Also their experience in using it for education purposes seemed to be good. So definity school/college students would be a very important segment for marketing ChatGPT.

### Working Proffesionals with high demand for communication

ChatGPT could also target professionals working in industries with high communication demands. These industries would include law firms, healthcare facilities, finance firms, and anyother firm that has customer service at it's core operation. When these firms are dealing large number of clients it become really difficult to effectively communicate with all the client with great speed and accuracy. The benefits of using an natural language processing AI like ChatGPT in these industries include;

1. **Improved accuracy:** ChatGPT's advanced language processing capabilities can help professionals communicate with greater accuracy, reducing the risk of miscommunication and errors.
2. **Greater efficiency**: By using ChatGPT to assist with language processing tasks, professionals can save time and work more efficiently. This can help them manage their workload more effectively and focus on other important tasks.

3. **Enhanced productivity:** Improved communication skills can lead to greater productivity and success in the workplace. With ChatGPT's assistance, professionals can communicate more effectively and achieve better results.
4. **Improved customer satisfaction:** In customer service and other client-facing roles, effective communication is essential for building positive relationships and improving customer satisfaction. By using ChatGPT, professionals can communicate more clearly and effectively, leading to better outcomes for both the business and the customer.

### Small to medium-sized businesses

Apart from this, ChatGPT could target small to medium-sized businesses that may not have the resources to hire a dedicated language processing team. By providing a cost-effective and efficient language processing solution, ChatGPT could attract businesses that are looking to improve their communication and productivity.

## Positioning

Positioning involves developing a unique and compelling value proposition that differentiates the product or service from competitors and resonates with the target audience. Effective positioning helps companies create a strong brand image, increase customer loyalty, and boost sales.

### Positioning for Students:

**Integration with existing student apps:** ChatGPT could integrate with existing student apps like Blackboard or Canvas, making it easily accessible to college students. Students could use ChatGPT as a resource for quick answers to their questions while studying or completing assignments.

**Campus events and partnerships:** ChatGPT could partner with college organizations, clubs, and events to promote the platform to college students. For example, they could sponsor a language processing workshop or hackathon and offer prizes or scholarships to students who demonstrate proficiency in using the platform.

**Referral programs:** Referral programs can be a powerful way to drive user acquisition. ChatGPT could offer rewards or incentives to users who refer their friends to the platform, encouraging them to spread the word to their social networks.

**Campus ambassador program:** Creating a campus ambassador program where students are incentivized to promote ChatGPT to their peers could be an effective way to get the word out. Ambassadors could be given exclusive access to features, swag, or monetary compensation for each referral.

### Positioning for Working Proffesionals and Small businesses:

**LinkedIn advertising:** Professionals are active on LinkedIn, so promoting ChatGPT through targeted ads on the platform could be effective. Ads could highlight ChatGPT's ability to improve communication skills, and be targeted to specific industries or job titles where strong communication skills are necessary.

**Integration with existing professional tools:** ChatGPT could integrate with existing professional tools like Slack or Zoom, making it easily accessible to professionals. Professionals could use ChatGPT as a resource for quick answers to questions during meetings or when communicating with clients.

**Free trials and demos:** Offering free trials or demos of ChatGPT to professionals in industries with high communication demands could help build awareness and drive adoption. Professionals could see firsthand how ChatGPT can improve their communication skills and make their work easier and more efficient.

# SWOT Analysis

As an AI-powered language model, ChatGPT competes in the natural language processing (NLP) and conversational AI sectors. The NLP and conversational AI sector is very competitive, with several established enterprises and new entrants constantly appearing.

As the world becomes more digital, the demand for more powerful and user-friendly natural language processing systems grows. ChatGPT is one such industry leader, providing users with a strong, open-source language model that can be utilised for a range of applications. Yet, like with any other technology, there are benefits, drawbacks, possibilities, and risks to consider. We will investigate these components in depth in our ChatGPT SWOT analysis to have a better grasp of the tool's market potential for success and growth.

We can obtain vital insights into how the tool can continue to expand and improve, as well as how it can remain competitive in an ever-changing technological world, by critically assessing ChatGPT's strengths and limitations, as well as the possibilities and dangers that it confronts.

## Strengths

**Extensive Training of the Model:-** ChatGPT is a very Sophisticated and technologically advanced natural language processing technology that has been trained on a massive quantity of data. As a result, it has a clear advantage over other language models and may produce answers that are more precise and pertinent to the user's inquiry.

**Open-source programme: -** ChatGPT is an open-source programme, which means it may be used and modified by anybody. This has helped to establish a developer community that can contribute to the tool's growth, making it even more powerful and valuable.

**Accessibility: -** ChatGPT is open to creators and users of all skill levels. The model is simple to use and integrate into existing systems, making it a versatile and useful tool for developers.

## Weakness

**Biased tained data: -** ChatGPT, like any other language model, is prone to prejudice, especially if it was trained on biassed data. This might lead to erroneous or unsuitable replies to specific inquiries, undermining the tool's efficacy.

**Lack of Emotional Intelligence: -** While ChatGPT may generate grammatically correct and semantically consistent replies, it lacks emotional intelligence. Understanding the emotional state of the person with whom you are interacting and responding accordingly are examples of emotional intelligence. ChatGPT may fail to identify and respond effectively to emotional signals, resulting in tone-deaf or inappropriate replies in some circumstances.

**Lack of Common Sense: -** One of ChatGPT's major flaws is its inadequate comprehension of common sense information. While it can create phrases that are clear and grammatically acceptable, it lacks the capacity to reason and deduce information that is evident to humans. ChatGPT, for example, may provide an answer that appears to be technically right but fails to consider key context or consequences, resulting in erroneous or irrelevant responses.

## Opportunities

**Language Translation: -** ChatGPT may be used to create more sophisticated language translation solutions. ChatGPT can be taught on different languages because to its capacity to interpret and generate human-like language, and the result may be utilised to construct

translation software. This technology can assist people in communicating more successfully with people who speak various languages, so breaking down language barriers and boosting cross-cultural dialogue.

**Virtual Assistants: -** ChatGPT may be used to construct virtual assistants that can assist users with a variety of activities such as appointment scheduling, trip booking, and answering queries. ChatGPT-powered virtual assistants may be programmed to interpret natural language and respond appropriately in real time. This technology has the potential to improve customer service and user experience in a variety of industries, including healthcare, banking, and retail.

**Content Creation: -** ChatGPT may be used to create content for a variety of venues, including social networking, blogs, and news stories. ChatGPT's natural language generation capabilities enable it to provide entertaining and useful material that can be tailored to the audience. This technology can help content makers and marketers save time and money while boosting content quality and consistency.

## Threats

**Malicious use: -** ChatGPT can be used for malicious purposes such as spreading propaganda, fabricating fake news, or impersonating someone. ChatGPT may be trained on certain issues or people and then used to offer convincing but deceptive information utilising its natural language production abilities. This has the potential to substantially destroy public faith in information and media.

**Bias and Discrimination: -** ChatGPT, like any AI system, is vulnerable to biases and prejudice, especially if trained on biassed or limited data sets. This might result in unjust treatment of certain persons or groups, the perpetuation of stereotypes, or the reinforcement of existing prejudices in society. This has important ethical and societal ramifications and may affect ChatGPT's reputation and credibility.

**Privacy and Security: -** The data storing and processing capabilities of ChatGPT raise issues about data privacy and security. Personal interactions, user data, or confidential information may be collected and stored by the model. This data may be subject to data breaches, hacks, or abuse, posing a serious danger to individuals' and organisations' privacy and security.

ChatGPT has numerous chances to develop and expand in the future, including expanding into additional languages, collaborating with businesses, and integrating with other tools and platforms. There are, however, risks to consider, such as competition from different language

models and conversational AI tools, privacy issues, and the possibility of technical obsolescence.Overall, ChatGPT is a great technology with the potential to transform natural language processing and improve our interactions with robots. But, in order to remain competitive and relevant in a quickly changing technology context, it must continue to innovate and adapt.

# Conclusion

This report provides a comprehensive analysis of ChatGPT's current user perception and growth prospects. We have learned a lot about the platform's strengths and potential weaknesses through interviews, sentiment analysis, and survey methods. A framework for comprehending the competition and  strategy for market entry and expansion has also been provided by our SWOT and STP analysis.

The study highlights the significance of undertaking research and analysis to learn more about how users perceive and anticipate ChatGPT. There is still opportunity for improvement in ChatGPT's capabilities, capacity for handling complicated discussions, and personalised user experience, despite the fact that it has demonstrated tremendous potential for growth and user acceptance.

By utilising its advantages in accuracy and efficiency, ChatGPT has a great potential for market entry and expansion in the market according to our results. The SWOT analysis has offered a framework for understanding the competitive landscape as well as potential threats and opportunities, while the STP analysis has highlighted prospective target segments and positioning strategies for ChatGPT.

Overall, this analysis provides valuable insights about ChatGPT, its present market position, user perception, and growth potential. ChatGPT can improve its platform and position itself for continued success in the quickly expanding market for AI-powered virtual assistants by making use of the insights and suggestions offered.