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## Chatgpt

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### ABSTRACT

ChatGPT is a AI language model. That use natural language model . chatgpt is a trained AI chatbot. Chatgpt is based on the GPT-3.5 architecture developed by open AI. It's leverage deep learning techniques to generate human-like responses and interact with users.

This abstract provides an overview of the ChatGPT. It is a natural language processing chatbot driven by generative AI technology that allows you to human-like conversation and much more. The ChatGPT (generative pre-trained transformer) is an artificial intelligence for natural language processing. ChatGPT is a valuable tool for teachers and student.

### KEYWORDS

ChatGPT, GPT- 3.5 Architecture, Natural language, open AI.

### INTRODUCTION

ChatGPT also known as the generative pre- trained transformer chatGPT is natural processing language model developed by openAI. It uses machine- learning techniques to generate human-like text. ChatGPT is a AI plateform that store the multiple information and search the any question by text. ChatGPT is combination of two word machine +human mind. ChatGPT is used for content writing, script writing. Coding, create cv/resume ,legal advisor, information provider and math problem etc. chatGPT is openAI tools. Open AI is an artificial intelligence research laboratory with a team of researchers and engineers dedicated to creating advanced AI system that can benefit society as a whole. openAI is creating a new technologies and machine learning tools.



## HISTORY, LITERATURE REVIEW AND METHODOLOGY ON CHATGPT

### HISTORY

It was developed by OpenAI in November 2022. The program is built on openAI GPT-3.5 family of large language model. It has both supervised and unsupervised learning method.

### DALL-E

An AI system that create\_realistics images based on text description . the first version was released in January 2021 and second in April 2022.

### CODEX

An AI system that translates natural language into code in multiple coding languages. It was built on top of the GPT-3 model released in partnership with GitHub in July 2021 and released to the public in August 2021.

### GPT-1

introduced in June 2018 GPT -1 was OpenAI first\_transformer based language model with 117 milion parameters .the model used books as training data and could perform various tasks.

### GPT-2

openAI introduced GPT-2 in feb 2019. The model had 1.5 billion parameter and was trained with information from the internet . it was able to perform a border scope of task without task specific training.

### GPT-3

the company behind chatGPT released GPT-3 in 2020. Gpt-3 has 175 billion parameter and much more powerful avabilities than previous model.

### GPT-3.5

GPT3.5 model behind chatGPT is a fine- tuned version of GPT-3 that can understand and generate natural language and code.

### CHATGPT

chatGPT was released to the public in November 2022. chatGPT model were trained using the reinforcement learning from human feedback method.

### GPT-4

openAI released tis GPT-4 model to chatGPT plus paid subscribers in march 2023.

## LITERATURE REVIEW

Large language model (LLM) such as chatGPT are a type of artificial intelligence (AI) technology that are “trained using vast amount of data, allowing them to similar human conversation”.

ChatGPT for instance is able to understand the context and text is able to answer with appropriate responses. It can also generate new text based on patterns pre-learned from the training data. chatGPT is open AI tools uses a natural language model to create human like conversational dialogue.

chatGPT uses deep learning and to transformer architecture to generate human-like responses to user prompts. Sam Atman is co- founder openAI , which released the powerful chatbot chatGPT 30 nov 2022.

## METHODOLOGY

ChatGPT is a revolutionary technology that uses advanced AI techniques to generate natural language responses to a given prompt or input.

It has been across various fields from natural language processing to customer service to content creation. The main technology that lies behind chatbot is NLP and machine learning. when a question is presented to a chatbot ,a series or complex algorithm process the received input .understand what the user is asking and based on that determines the answer suitable to the question.

## METHODS

ChatGPT is a conversational software that uses three advanced model called generative pre-trained transformer (GPT) to generate text and code based on user input .these models have been trained on vast amount of text data from various source like- book, social media ,websites and discussion.

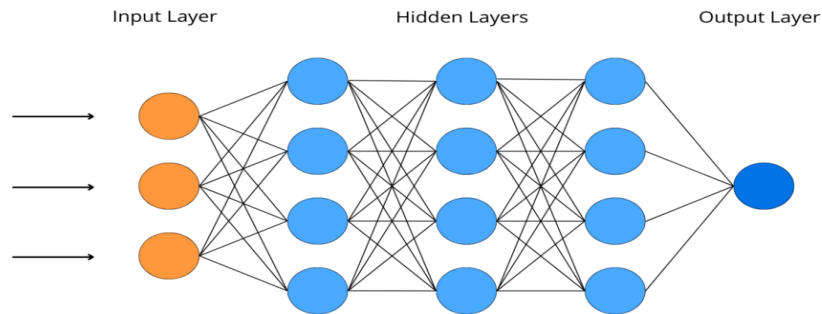
## ALGORITHMS

The amount of data that chatGPT can take a very large, so it uses a pre-trained transformer algorithms to generate responses. The transformer is an AI model that was developed by Google and open AI which operates on a self- attention mechanism.

## CHATGPT NEURAL NETWORK ARCHITECURE

The architecture of ChatGPT is explain the neural network composed of many layers of neurons, which are processing units. Each neuron receives information from the previous layer and then produces an output that is sent to the subsequent layer.

ChatGPT'S Neural Network Architecture



**CHARACTERISTICS OF CHATGPT**

1. Language understanding and Generation.
2. Large vocabulary
3. Contextual understanding
4. Math problem solving
5. Self improvement abilities

**FEATURES OF CHATGPT**

1. Research
2. Coding
3. Customization
4. Human like responses
5. Translation

**BENEFITS OF CHATGPT**

1. Customer experience
2. Task automation
3. Increased productivity
4. Multiple languages
5. Broad compatibility
6. Access information anytime.

**CHALLENGES OF CHATGPT**

1. Bias and ethics
2. Privacy and security
3. Lack of human interaction
4. Technical issues
5. Cost and implementation

### CONCLUSION ON CHATGPT

ChatGPT is most powerful NLP tool for conversational purpose. The answer is yes. However , it may not be equally powerful in educational context since the neural network behind chatGPT need to have been trained on specialized data considering that chatGPT can write program.

In conclusion ChatGPT is a powerful languages model that can generate human-like responses to natural languages input. It has many practical application including chatbots, virtual assistants and customer service. ChatGPT ability to understand context and generate relevant responses makes it an impressive feat of AI.

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