



# CHATGPT: PROMOTING ACCESSIBILITY AND LEARNABILITY OR NOT

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# ChatGPT



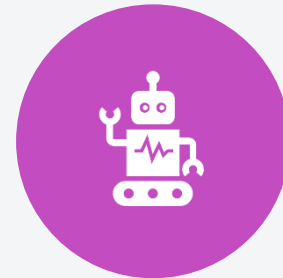
An artificial intelligence chatbot developed by OpenAI



Natural language process (NLP)



Natural language understanding (NLU)



Large Language Model (LLM)

# HUMAN-COMPUTER INTERACTION (HCI)



HUMAN-COMPUTER  
INTERACTION (HCI, ISSA &  
ISAIAS, 2015)



UNDERSTANDINGS OF  
USABILITY



“USABILITY CRITERIA” (P. 33)  
INCLUDES **ACCESSIBILITY**  
**AND LEARNABILITY**

# Accessibility

Economic

Gender

Bodily

Psychological

Racial  
stratification

(Preece et al., 1994)

# Accessibility



Providing texts, audios, and visuals



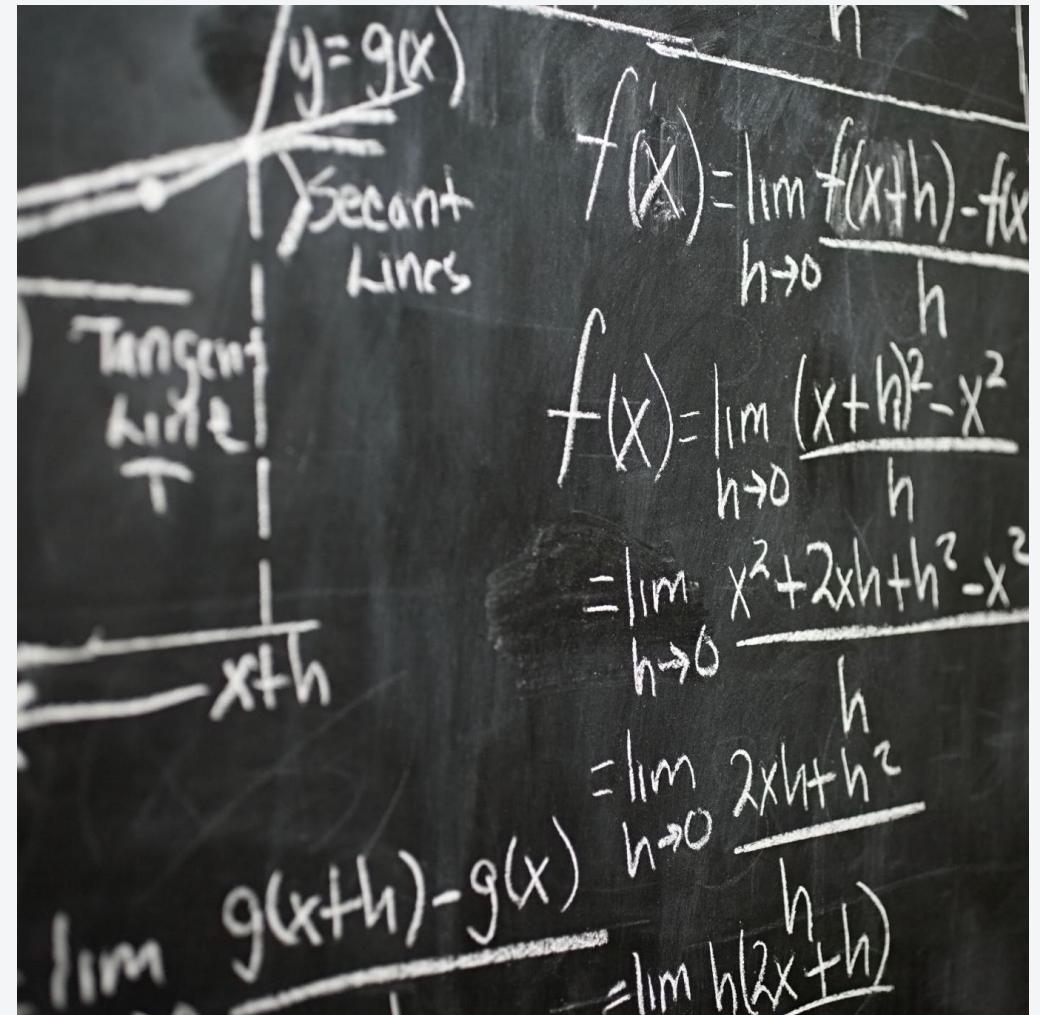
Changing theme colours



Increasing accessibility of information (Casella et al., 2023)


# Learnability

"Learnability theory addresses one of the foundational questions in cognitive science: **To what extent can knowledge be derived from experience?**" (Fulop & Chater, 2013).



# Learnability



- Facilitating personalised learning (Farrokhnia et al., 2023)
  - Offering rapid assessment and evaluation (Rahman & Watanobe, 2023)
  - Enhancing creativity and critical thinking (Zhai, 2022)
  - Supporting language learning by simulating authentic interactions (Kohnke et al., 2023)
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# The etymological roots of the language:

- Interface
- Interference
- Interaction

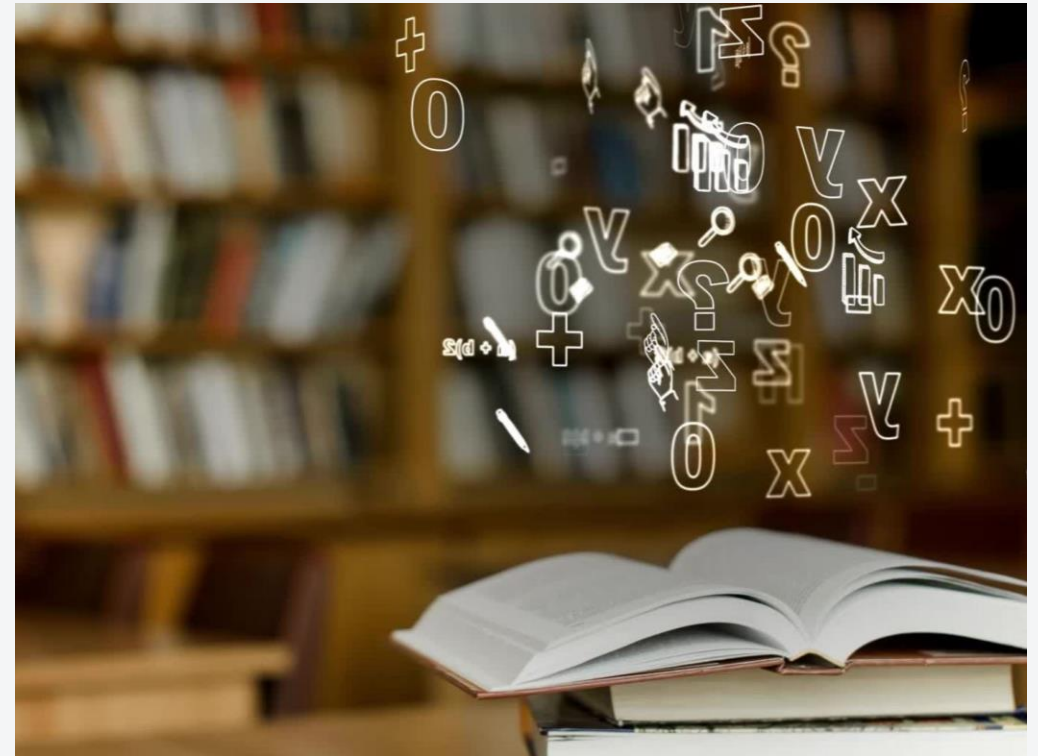
(Sommerer & Mignonneau, 2008)





# Aim of the Exploratory Study

1. Can learners access adjectives on ChatGPT?
2. Can learners create an experience in learning adjectives on ChatGPT?



# Pilot Study

- Deployed the user experience method by Zhai (2022)
- Raised 6 prompts

Sets	Prompts
1	a. Show me 3 pictures that are beautiful b. Why are they beautiful?
2	a. Show me 3 pictures that are anxious b. Why are they anxious?
3	a. Show me 3 pictures that are popular b. Why are they popular?

# Results

## Set 1


a. Show me 3 pictures that are beautiful



# Results

Set 1:

b. Why are they beautiful?



These images showcase different aspects of beauty and capture stunning visuals. Please note that these pictures are sourced from Unsplash, a platform that provides high-quality free images.

ME Why are they beautiful?



The images retrieved from the Unsplash API using the keyword "beautiful" are considered beautiful based on various subjective factors such as composition, aesthetics, lighting, colors, and overall visual appeal.

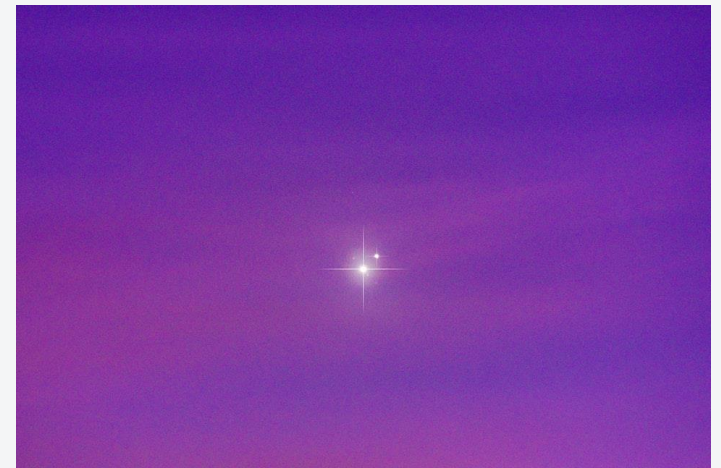


Each person may have their own unique interpretation and appreciation of beauty, influenced by personal preferences, cultural backgrounds, and individual perspectives. It's important to recognize that beauty can be found in a wide range of subjects, styles, and artistic expressions.

Please note that the perception of beauty is subjective, and what one person finds beautiful, another may have a different opinion. These images are provided as examples of what is commonly associated with the concept of beauty, but individual preferences may vary.

# Results

Set 2: a. Show me 3 pictures that are anxious





# Results

Set 2:

b. Why are they anxious?

ME

Why are they anxious?



The images retrieved from the Unsplash API using the keyword "anxious" may be associated with the concept of anxiety based on various visual elements and compositions. These elements can include facial expressions, body language, settings, or symbolic representations that are commonly associated with anxiety.



It's important to note that the perception of anxiety can differ among individuals, and the interpretation of these images may vary based on personal experiences and perspectives. Anxiety is a complex emotional state, and its representation can be subjective.

Please keep in mind that the images retrieved through the Unsplash API are random and may not capture the full range of experiences or manifestations of anxiety. If you have any specific preferences or requests, feel free to let me know, and I'll do my best to assist you.



# Results

Set 3: a. Show me 3 pictures that are popular



# Results

## Set 3:

### b. Why are they popular?



Why are they popular?



The images retrieved from the Unsplash API using the keyword "popular" may not specifically represent the concept of popularity. The Unsplash API provides random images based on the keyword, and the relevance to the specific concept may vary.

In the context of the images retrieved, they may be popular based on their visual appeal, quality, or the subjects they feature. Some images may have gained popularity on Unsplash due to their aesthetic qualities, creative compositions, or the relevance of their subjects to current trends or interests.

However, it's important to note that the perception of popularity can vary among individuals, and the images retrieved through the Unsplash API may not capture the full range of what is considered popular. The term "popular" can be subjective and influenced by various factors such as cultural, societal, or personal preferences.

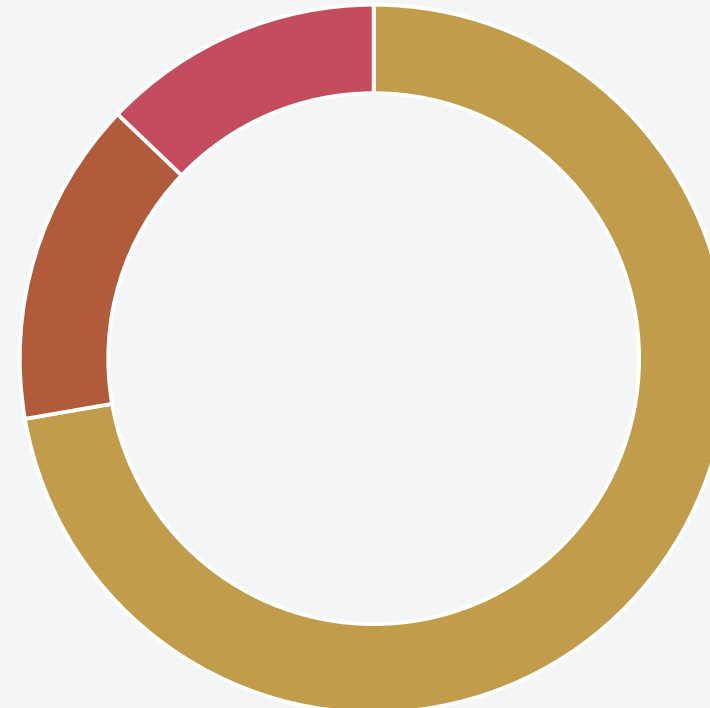
# Challenges

- Fail to change font size on the application
- Adopt external device to access ChatGPT
- Risks of biases

# Geographic origin of cutting-edge large language model (LLM)

- 73% from US
- 15% from China
- 12% from Others

(Council of the European Union, 2023)




■ From U.S. ■ From China ■ From others

# Implications

- Over-reliance on AI (Sok & Heng, 2023)
- Inaccuracies (Baidoo-Anu & Ansah, 2023)
- Concerns on Universal Design Learning including equality and inclusion (Rose & Meyer, 2016)
- Call for metrics



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# Q & A

