

Impact of Generative Artificial Intelligence (AI) on Undergraduates

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Abstract

This paper talks about the basics of how Generative Artificial Intelligence works and its advantages and disadvantages in general. The study explores the impact of Generative Artificial Intelligence in undergraduate's lifestyle and education. The paper clarifies about the amount of knowledge the students have of Generative Artificial Intelligence. The findings contribute to specifically show the students perspective of few globally well-known Generative Artificial Intelligence (Chat GPT, Snapchat AI, Google assistant) in daily lifestyle. The paper also shows the major reason for using of Chat GPT and Google assistant. The paper is also showing that students find Snapchat AI as a friendly companion. The paper also talks about the opinion of Generative Artificial Intelligence safety by undergraduate students.

Keywords

Generative Artificial Intelligence(AI), Chat GPT, Large language model, Snapchat AI, Google Assistant

1. Introduction

In today's changing world, moving towards Artificial Intelligence there is a significant impact on students. Artificial Intelligence refers to replication of human intelligence in machines that are programmed to think and act like humans. John McCarthy was one of the most influential people in this field, He is known as the father of the Artificial Intelligence because of his tremendous work in Computer Science and AI and he also coined the term Artificial Intelligence in 1950s. Generative Artificial Intelligence is a type of AI that produces diverse

types of content including text, audio, video etc that includes Chat GPT, Snapchat AI etc. Generative AI was first created by Joseph Weizenbaum in 1960s as part of the Eliza chatbot. Companies such as Open Ai, Anthropic, Microsoft and Google are some of the firms that have developed Generative AI models. Anthropic is a leading Generative AI that believes quality and safety should take precedence over quantity and speed.

2.Literature review

According to Cecilia Ka Yuk Chan and Wenjie Hu (2023), lawmakers may benefit from gaining a better grasp of students' perspectives on Generative AI in higher education in order to craft informed policies and strategies for the ethical and efficient use of these technologies. Researchers and practitioners would do well to familiarise themselves with Generative AI's characteristics in order to take advantage of its potential to reduce risks and add to a fundamental knowledge, as Leonardo Bah and Gero Strobel (2023) noted in their discussion of current AI developments.

In their 2023 article, Rulin Zereng, Jingyuam Cai, Keng Slau, and Langtao Chen examined the benefits and drawbacks of Generative AI in a variety of economic domains, including healthcare, education, business, and content creation. They also discussed the difficulties associated with Generative AI and the importance of human-centered AI partnerships. In their analysis of the ever-changing frontier of GenAI, Yu-Chang Hsu and Yu-Hui Ching (2023) discussed the applications, advantages, problems, and worries of Generative AI in the classroom.

Objectives

1. To understand the process of how Generative AI works.
2. To analyse the basic understanding of undergraduate on Generative AI and the influence of Generative AI on undergraduate students' lifestyle.

3.Methodology

The study analyses primary data with sample size of fifty people using only undergraduate students as sample. Secondary data is used for getting better clarity of work process of Generative AI.

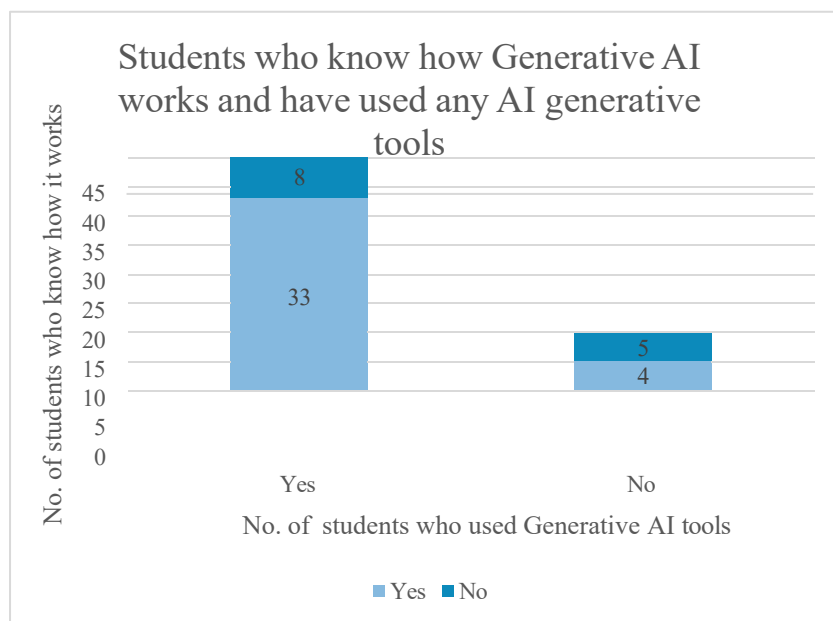
Generative AI

enormous language models (computer language) trained on enormous datasets are the backbone of generative AI. For example, when given a phrase, a big language model may divide the sentence into its component words and assign each one a probability score that indicates how likely it is that the given word sequence is true and meaningful. If you ask chat GPT to calculate the probability of the statement "I love to eat pepperoni," for instance, the model would prioritise "I love to eat pepperoni pizza" above "I love to eat pepperoni ice cream" based on the likelihood of each word in the sentence. Generative AI relies heavily on large language models, which provide the groundwork for computers to comprehend language and generate previously unimaginable material. Because there are always new models that will be useful for making movies, music, and photographs. Time and resources are both saved by generative AI's automated information provision. Issues such as deep fakes, data invasion for malicious purposes (such as phishing), and people losing their jobs can arise when AI-generated content falls short of expectations for quality and accuracy, despite being tailored to individual preferences. Generative AI works best when given detailed instructions that allow it to tailor its output to human preferences. A frequent misunderstanding about Generative AI is that it is limited to producing text, audio, video, and even 3D models. However, Generative AI is really capable of producing multimodal content in general.

4. Data Analysis

Students' awareness and usage of generative AI

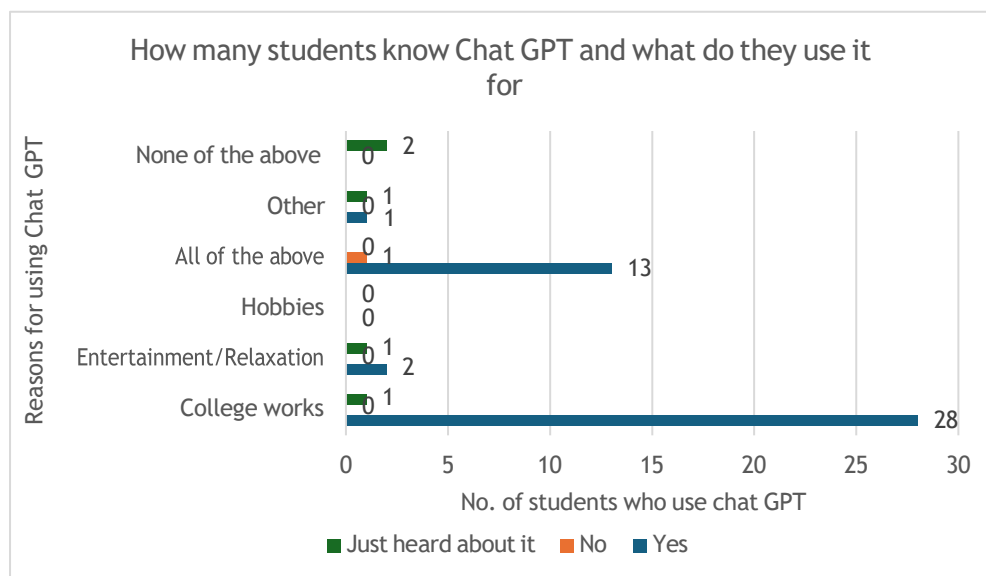
No. of students know how Generative AI works	No. of students who used Generative AI tools	
	Yes	No
Yes	33	4
No	8	5
Total No. of responses	50	



In student life, Generative AI is often used by students for education, and it also works as a friendly companion. According to the status and research 66% of students know how Generative AI works and use them. Whereas 16% of people do not know how Generative AI works but despite that they still use AI tools. 8% of people know how Generative AI works yet they do not use AI tools. 10% of people do not know how Generative AI works and do not use it.

Reasons students use Chat GPT

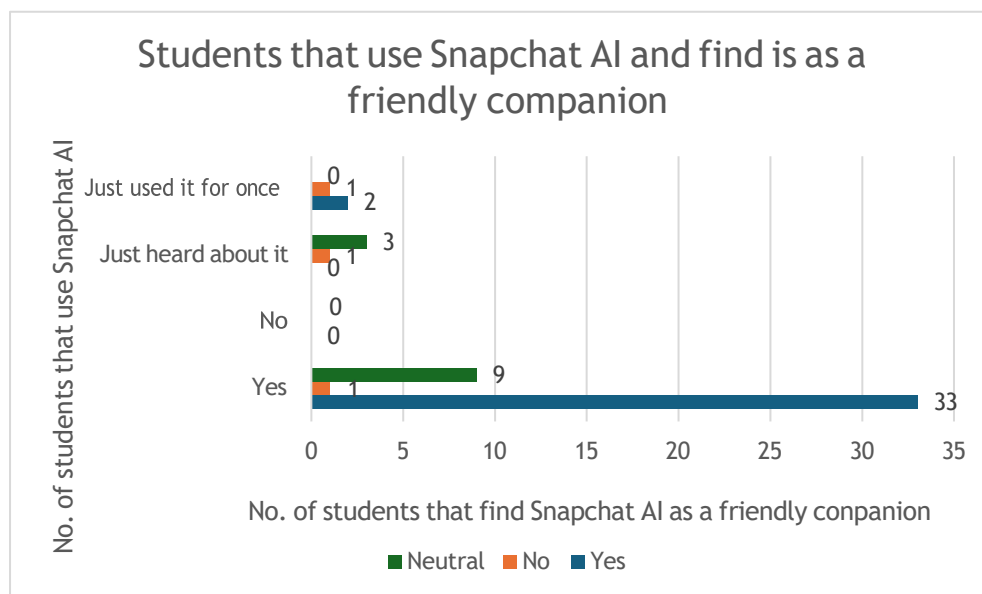
No of students whose Chat GPT	Reason for students using Chat GPT for					
	College works	Entertainment/Relaxation	Hobbies	All the above	Other	None of the above
Yes	28	2	0	13	1	0
No	0	0	0	1	0	0
Just heard about it	1	1	0	0	1	2
Total No. of responses	50					



Chat GPT works by using large neural networks that understand and generative text based on impact it receives. According to the statistics and research, 56 % of students prefer to use Chat GPT for education purpose while 4% of students use Chat GPT for entertainment purposes. 26% of students prefer to use Chat GPT for both education and entertainment purposes. 2% of students prefer to use Chat GPT for other reasons. 6% of students have heard about Chat GPT and its uses.

Snapchat AI as a friendly companion to students

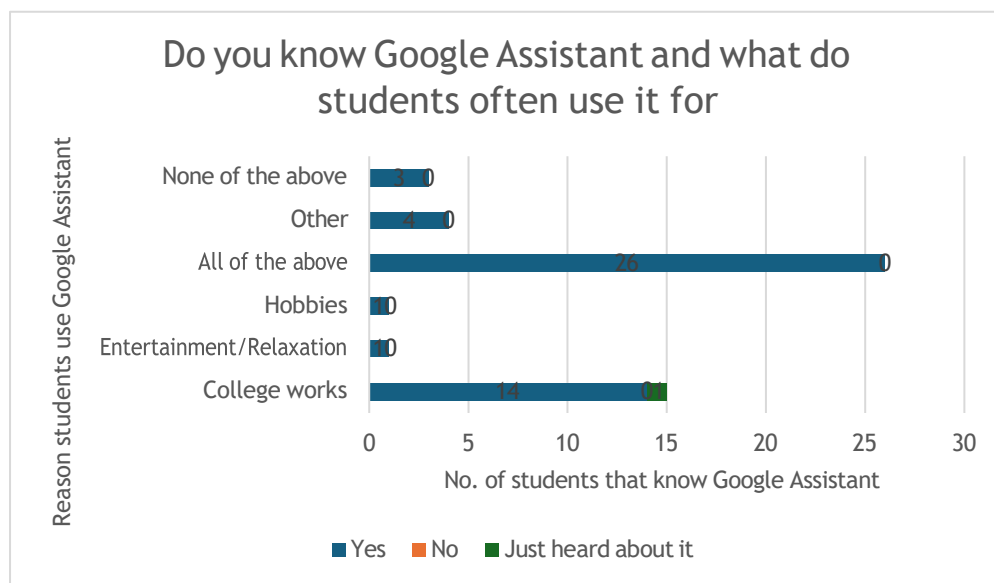
No of students that use Snapchat AI	No. of students that find Snapchat AI is a friendly companion		
	Yes	No	Neutral
Yes	33	1	9
No	0	0	0
Just heard about it	0	1	3
Just used it for once	2	1	0
Total No. of responses	50		



The Snapchat AI (i.e., a chatbot) act as a friend or a human companion. According to statistics and research 86% of students use Snapchat AI and 6% of students have at least tried it while 8% of people have heard about it. Snapchat AI is the more popular AI than Chat GPT and Google Assistant. 70% of students find Snapchat AI as a friendly companion.

Reasons students use Google Assistant

No of students that know Google Assistant	Reasons students use Google Assistant often for					
	College works	Entertainment /Relaxation	Hobbies	All the above	Other	None of the above
Yes	14	1	1	26	4	3
No	0	0	0	0	0	0
Just heard about it	1	0	0	0	0	0
Total No. of responses	50					

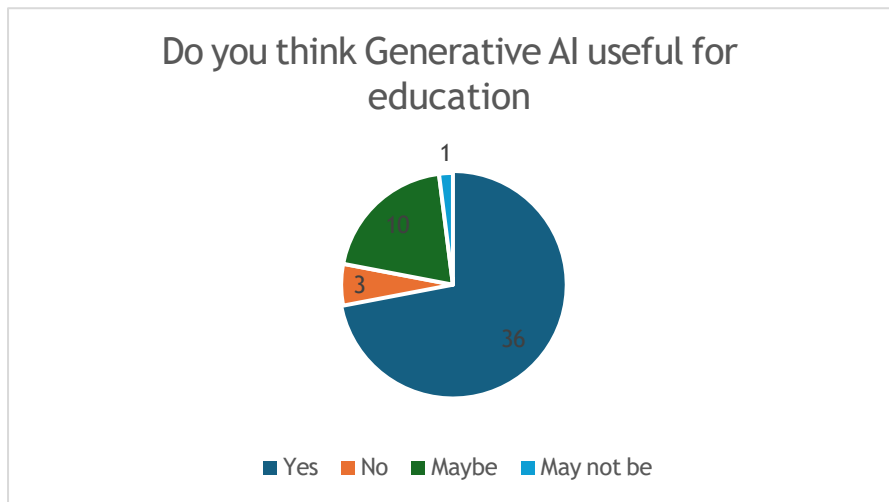


Google Assistant is a smart virtual assistant which uses Generate AI to helps view in tasks like answering questions and control devices through voice commands. According to statistics and research 28% off students use Google Assistant for their college works while 4% of students use Google Assistant for entertainment and their hobbies. 52% off students use Google Assistant for both their education and entertainment purposes. 14% of students use Google Assistant for other work. 2% of students that have just heard about using Google Assistant for their college works.

Generative AI impact on students' education and its safety

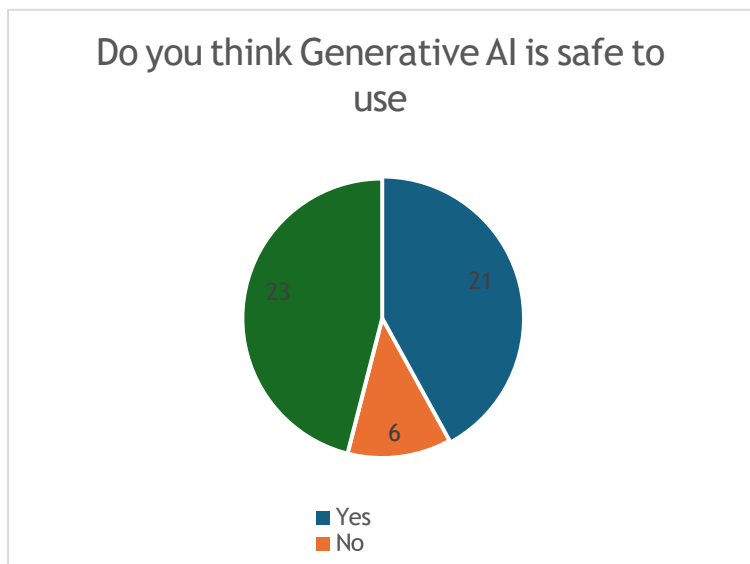
S No	Question	Yes	No	I don't know	Maybe	Maybe not	Total No. of responses
1	Do you think Generative AI usefulfor education?	36	3	Nil	10	1	50
2	Do you think Generative AI is safe to use	21	6	23	Nil	Nil	50

Use of Generative AI in education



Based on statistics and research, 72% of students find Generative AI useful for education and 20% of students believe that it may be useful in some cases while 8% of students do not find Generative AI useful in terms of education. From all the data we can come to a conclusion that AI has the highest impact on undergraduates' education.

Students view on generative AIs' safety.



Students often use different applications and tools without even considering if the tool is safe or not. Based on the statistics and research, 42% of students find Generative AI safe to use while 12% of students do not find Generative AI safe and 46% of people ignore whether the Generative AI application, they use is safe or not. Despite not having a good understanding about AI students still use it even though they are not sure if it is safe to use or not.

5. Conclusion of the study

In summary, the paper's findings provide a solid proof of the significant impact of Generative AI on student's life, especially in education many students use Generative AI on day-to-day bases sometimes knowingly about how Generative AI works and sometimes unknowingly. The paper also shows how the major impact of AI on student's education but from student's perspective generative AI such as Chat GPT is just a tool that helps gather the important information that they need for their education related works, and it does not matter if the tool itself is safe or not. In terms of being a friendly companion Snapchat AI is highly trusted by the students and out of curiosity students at least try it.

References

1. Cecilia Ka Yuk Chan & Wenjie Hu (2023)

<https://link.springer.com/article/10.1186/s41239-023-00411-8>

2. Leonardo Bah & Gero Strobel (2023)

https://ideas.repec.org/a/spr/elmark/v33y2023i1d10.1007_s12525-023-00680-1.html

3. Rulin Zereng, Jingyuan Cai, Keng Slau & Langtao Chen (2023)

<https://www.tandfonline.com/doi/full/10.1080/15228053.2023.2233814>

4. Yu-Chang Hsu & Yu-Hui Ching (2023)

<https://link.springer.com/article/10.1007/s11528-023-00863-9>