

A study on the usage of ChatGPT as a learning tool by college students in Western suburban Mumbai

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Abstract: ChatGPT is a platform driven by artificial intelligence launched by Open AI in 2022 and since then it has created a buzz among its users and has also triggered debates over its reliability and threats. It is capable of creating personalized and interactive content based on the prompts given by the user. It is known to be able to generate essays and articles and write scripts as well. This study intended to understand how and why students use this platform and to know their opinion about the same, which could be useful to understand how such a tool would be accepted in the teaching-learning process in educational institutions. Using quantitative approach, the researcher took an online survey through Google forms to administrate to college students through WhatsApp. 123 responses were received in which it was found that students used ChatGPT for their assignments, to generate content and captions to be posted in social media and to get ideas and inspirations and for various other reasons. It was also found that students modify the content generated by the platform and exercise caution by verifying the information.

Keywords: Students, artificial intelligence, ChatGPT, Educational tool, AI tools, online learning tool, college education

Introduction: ChatGPT: A revolutionary educational tool

Machines have always made lives easy. But can the same be said about platforms that can think and create content for you? Especially if the nature of the content in question is 'created' by a machine that has the potential to pose a threat to intellectual property?

ChatGPT has been taking its users by surprise through its various features. It is a tool run by an Artificial Intelligence (AI) that uses natural language processing (NLP) system to provide responses through prompts generated by users. The GPT stands for Generative Pre-trained Transformer. (Baidoo-Anu & Ansah, 2023) The platform that was launched in November 2022 by Open AI, has been the centre of debates because of its abilities. It is known to not just provide personalized content, but also has the potential of generating interactive content through prompts given by the user. A GPT model is also capable of producing text in different languages just like a human and can strike conversations like one too. It can generate tailor-made essays, articles and illustrations about absolutely any phenomenon in this world, dependent on the prompt given. Moreover, all of such data is publicly available. With all of these potentials, ChatGPT also has its set of limitations such as generating false and biased information, plagiarism, issues related to privacy, among others.

To understand the research part of ChatGPT, the tool is known for its prompt and instant responses on the topic asked but also infamous for not providing citations and reference of the produced content. (Chinonso, 2023)

A Tool to be used with caution

In spite of such drawbacks, ChatGPT is said to work wonders, if used carefully. The AI tool said to be used widely by teachers and students in the classroom in the teaching-learning process. Apart from generating essays, it can also generate lesson plans and rubrics, outline a syllabus, design tests and quizzes, create a script, write a story and computer codes. (Trust, 2023)

Evan as ChatGPT is in the centre of arguments and debate, honing the skills of using it ethically and responsibly can make the AI-driven tool an effective one for language teaching and learning. (Mendes & Panhan, 2024) It is known to help in learning the grammar, broadening the language, enhancing conversation skills, improve writing skills and provide knowledge regarding one's culture through idioms and slangs. As convincing as it looks, it poses a threat in

form of a mechanism that learners may use to cheat and commit plagiarism through assignments written-AI. Researchers studying the effects of the Ai tool are of known to be of the opinion that it if you scrutinise the content produced by ChatGPT, the tool has the possibility of providing you with an incorrect or false information that may look believable. (Bowman, 2022)

Methodology

The research approach used in this study is quantitative. The researcher has used two hypotheses that the researcher intends to prove through the study that are as follows:

Hypothesis 1 (H_1) states that students use ChatGPT as an educational tool for various purposes such as writing essays, assignments, draft letters, writing computer codes, etc.

Hypothesis 2 (H_2) states that students who use ChatGPT also modify the output generated as per the need arises and exercises caution on the same by verifying as well.

The data used in this study in primary data. The mode of data collection for the study is through survey conducted through Google forms. Since the nature of the study was multidisciplinary, the survey form was administered to undergraduate students across different departments of the self-finance section of Nagindas Khandwala College, Malad (West), Mumbai. Students who responded to the survey pursued their bachelor's degrees from discipline such as multimedia and mass communication, management studies, e-commerce, financial markets, accounting and finance and banking and insurance.

Data analysis

The survey that was conducted through Google forms had received 123 responses from students after removing duplicate responses. Female students form the majority of the respondents at 60.2% (n=74) against 39.8% (n=49) males. The majority of the respondents (94.4%; n=116) confirm that they use ChatGPT and only their responses have been conducted for this study. When asked about their frequency of using the AI tool, 50.4% (n= 62) of the respondents use it quite often, whereas 18.7% (n=23) of them said they do not use it that often, 17.9% (n=22) of them said they use it rarely and 13% (n=16) of them said they use ChatGPT all the time. To understand their dependence on ChatGPT for their content creation needs such as drafting emails, writing a script, framing caption for their social media pages, etc.' 79.7% (n=98) of the respondents said that they were somewhat dependent, 12.2% (n=15) said they were not at all dependent on the tool and 8.1% (n=10) admitted that they were completely dependent the same.

Multiple responses were chosen by students for knowing the reasons why they use ChatGPT. The options given were as follows; as a guide to create content for social media, as a study material, as an assignment guide, to draft a message of official nature, to draft letters, as a guide to write scripts, to write computer codes and others. A majority of 67.5% (n=83) opted for 'as an assignment guide'; 65.9% (n=81) opted for 'as a study material'; 40.7% (n=50) opted for 'as a guide to create content for social media'; 27.6% (n= 34) opted for 'as a guide to write scripts'; 24.4% (n=30) opted for 'to draft a message of official nature'; 22% (n=27) opted for 'to draft letters'; 11.4% (n=14) opted for 'to write computer codes' and 5.7% (n=7) opted for others. Since the 'others' had an open-ended slot for respondents to enter their reasons for using ChatGPT, some students wrote that they used it to generate ideas, get inspirations and to find answers for questions that are hard to find in Google.

To understand whether how often they verify the information you from ChatGPT, it was found that 48.8% (n=60) would do so based on the nature of the information, 32.5% (n=40) would do it as and when the need arises, 13.8% (n=17) would do so every time they use ChatGPT, and 4.9% (n=6) opined that they would never verify the information. When asked whether the students modify the content generated from ChatGPT as per their needs 85.4% (n=105) affirmed that they do modify whereas 14.6% (n=18) said that they do not modify the content.

Majority of the students, i.e. 80.8% (n=97) were of the opinion that they would like ChatGPT to be formally introduced into their class and curriculum as a teaching-learning tool.

A voluntary open-ended was put up asking students their opinion about the AI tool, in which some of them who wrote comments ChatGPT is a good platform that helps users to ideate, if it is used in the right manner. Some students opined that the AI tool is not reliable and provides wrong information. One student expressed his concerns about ChatGPT's potential to overtake employments in future since it can generate content with prompts, which can pose a threat for content writers.

Results

The researcher had used two hypotheses in the study. Hypothesis 1 stated that students use ChatGPT as an educational tool for various purposes such as writing essays, assignments, draft letters, writing computer codes, etc. Since it was found in the survey that majority of the respondents (94.4%) use ChatGPT. It was also found that they use it for multiple purposes such as a guide for their assignments, as a study material, to create captions for social media, etc. Therefore, the hypothesis was proved.

Hypothesis 2 stated that students who use ChatGPT also modify the output generated as per the need arises and exercises caution on the same by verifying as well. It was found that the majority of the respondents (85.4%) modify the content generated by the AI tool. It was also found that 48.8% would verify the content do so based on the nature of the information generated, whereas 32.5% of them said they would do so when the need arises and 13.8% of them said they would do so every time they use the AI tool against 4.9% of the respondents who said they never verify the information generated. Since majority of the respondent said that they verify the information generated by ChatGPT somehow and exercise caution, the second hypothesis was also proved thus establishing that students who use ChatGPT also modify the output generated as per the need arises and exercises caution on the same by verifying as well.

Conclusion

The study was conducted to understand the usage of ChatGPT by the students. The hypotheses were framed to match the study, as discussed in the methodology part of the article. Hypothesis 1 was proved, thus establishing that students use ChatGPT as an educational tool for various purposes. Hypothesis 2 was also proved further establishing that students who use ChatGPT also modify the output generated as per the need arises and exercises caution on the same by verifying as well. Therefore, the study was successful in understanding how students use ChatGPT and how it helps them in their daily lessons and content generation needs and to generate ideas and inspirations.

Limitations and Scope of the study

One of the limitations of the study was time duration of the research conducted because of which the researcher could not delve deeper on the topic to understand more about the same from the perspective of the students and teachers. This opens a possibility of broaden this study in future by understanding the topics from teachers' point of view and to study the tools' potentials and drawbacks if it is introduced as a teaching-learning tool in the curriculum. One-on-one interviews can be conducted with students and teachers to understand their perspective about the ChatGPT as a teaching-learning tool.

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