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PRELIMINARY DRAFTS

Chat GPT: Who is Friend and Who is Foe in Academia?

An Analysis of Impact on Learning, Teaching and Evaluation Modality

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ABSTRACT

Write the abstract last because it will change when your focus of paper changes.

**Four sentences:**

1. **State the problem**
2. **Why it’s an interesting problem**
3. **What’s your solution achieved?**
4. **What follows from your solution?**

CCS CONCEPTS

• Insert CCS text here • Insert CCS text here   • Insert CCS text here

**KEYWORDS**

Artificial Intelligence, Chatbot, Chat GPT

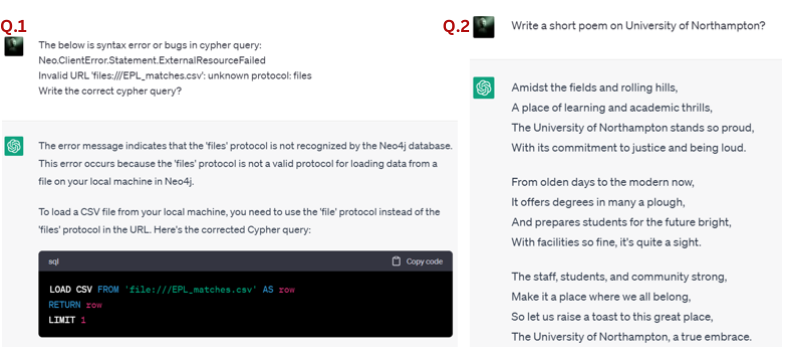
ACM Reference Format:

1. Introduction

In Computer Science during recent years, AI has been flourishing its performance rapidly in a wider range. At present the most buzzing application trending globally is text-based conversational AI model called Chat GPT (Generative Pre-Trained Transformer). It operates diverse range of natural language processing functions. Despite the wide scope of effectiveness, there are various challenges on its accountability, trustworthiness and ethical implications. As we know, Education is one of the crucial elements of the society. Chat GPT is on the way of crafting a stepping stone or a slippery stone to the academic world in near future.

* 1. Purpose and Research Questions

In Fig 1.1 below, there are two scenarios where questions have been asked by a student in order to get response in code based and text-based. Students from any faculty are easily accessible and get benefits from this domain for the time-being.

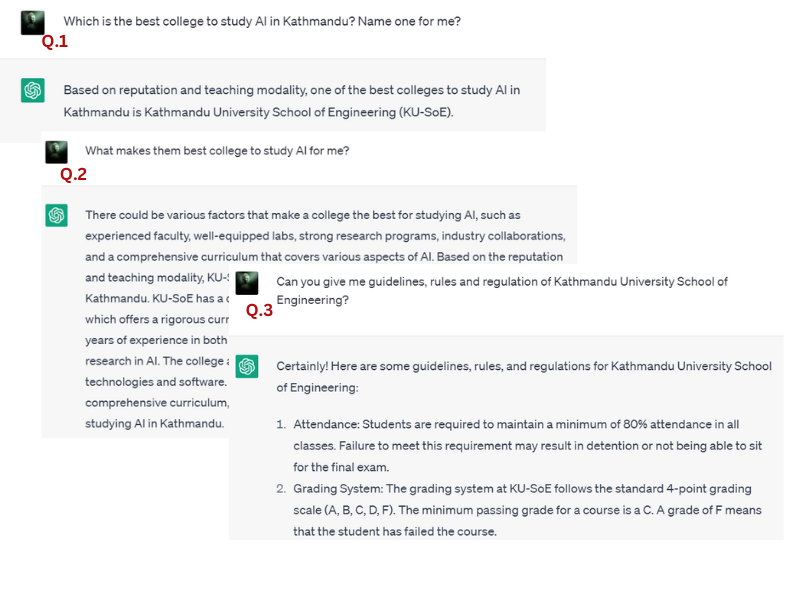


*Fig1.1:* *Chat GPT: (left: rewriting the code from given bugs or errors & right: poem generated on University of Northampton)*

Some of the observed questions that raises problems in academia are listed below:

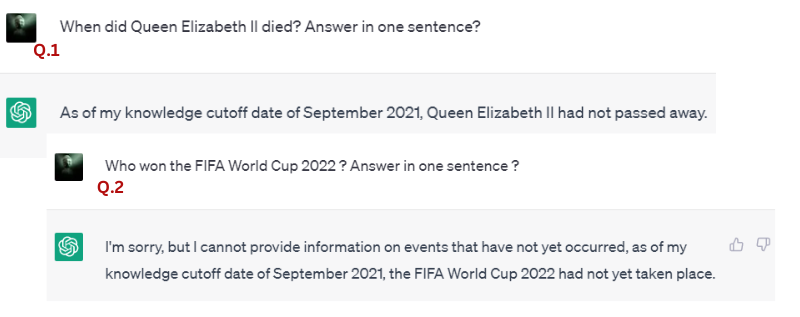
1. What really motivates student to use Chat GPT? Is it a buddy tutor that helps in analyzing ideas or an indoctrination tool that inspires the tradition of calculated academic misconduct in terms of academic integrity?
2. Are there any limitations on Chat GPT learning environment for student’s edition to ensure that they preserve their creativity skills?
3. Is it warning to the teachers in terms of teaching and evaluation modality? What are the comparative natures both the domain has that vary them in terms of quality education?
4. Does the text generate by the transformer dominant the plagiarism software tools in terms of evaluation?

In Fig 1.2 below, Chat GPT’s responding style to ensure the best college in AI in Kathmandu and its guidelines on the basis of its teaching and reputation term may raise another question about its accountability.



*Fig1.2: Chat GPT: Responding the user best college to study AI*

1. On the basis of Fig1.2, Are the decision-making information delivered by the model holds an organizational, legal and ethical accountability? What can be the sources of its data that values our trust in a sense that it holds legitimacy for academic tasks such as: research, thesis, presentation, writing reports and so on?
2. Do the data provide by Chat GPT models are accurate or outdated? What are the consequences if the response data are not up to date in the field of Academic libraries?

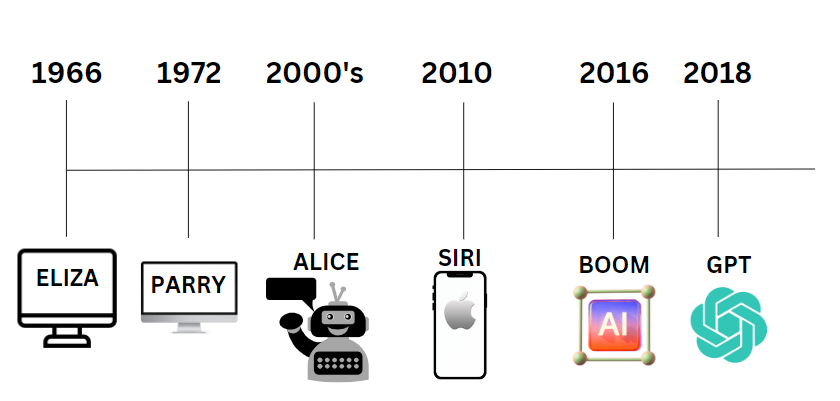


*Fig1.3: Chat GPT-3 models knowledge cut-off is September 2021*

The fundamental purpose or contribution that is going to be in this research paper are listed below on the firmer basis:

* To explain contributions precisely that maintains novelty, utility and clear idea focusing Chat GPT’s influence in Academia.
* Preparing survey using questionnaires method to at least 10 students to list the core purpose of using Chat GPT model in terms of good technology or a bad means.
* To understand the wider range of its functionalities, development process and its general architecture. To know its audience are targeted-based or not on the basis of performances.
* To analyze the probability of its impact on academic institution’s traditional teaching and evaluation modality.
* To find out whether the response generated by transformer are plagiarism free or not.
* To research the model’s performance and accuracy in terms of accountability, trustworthiness and ethical implications.
* To confirm whether the data provided by Chat GPT is accurate or not in practical.
* To analyze all the arguments critically, claiming on full reference and conclude the overall topic after doing research on the evidence-based.
  1. Progression of Chatbot

Alan Mathison Turing (an English Computer Scientist) proposed a paper called “Turing Test” in 1950 which main concept was whether the machine can or cannot think like human? If the evaluator cannot distinguish the conversation between a computer or human then it passes the “Turing Test”. It was first generative idea of Chatbot. [C] Chatbot, Virtual Personal Assistant and AI bot are the fundamental progression of Chatbots over time.

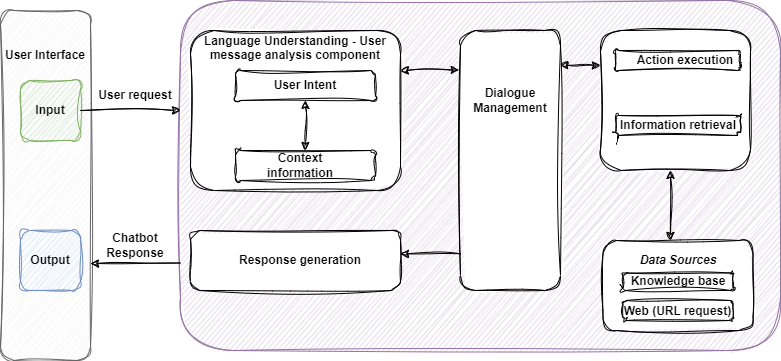


*Fig1.4: Prominent scene progression of Chatbot*

**(a) Chatbot:** A Chatbot is a computer program designed to interact (either voice or text) with humans or understand user’s questions and response automatically by using Artificial Intelligence and Natural Language Processing. [C]

Followings are the list of prominent names in the history of Chatbot development: -

* **ELIZA (1966):** First Chatbot designed to simulates the conversation that intended to be a psychotherapist and sole aim was to provide response to user on pattern matching key words or canned phrases.



*Fig1.5: General Architecture of Chatbot*

* **PARRY (1972):** More advanced than Eliza that have a better controlling structure.
* **ALICE (Artificial Linguistic Internet Computer Entity- 2000’s**): First online chatbot based on pattern recognition, however fails to pass Turing Test but became the foundation for most of the present’s Chatbot.

**(b)Virtual Personal Assistant:** It is also known as Virtual Agents.

* **APPLE’s SIRI (2010):** First Chatbot as a Personal Assistant

Due to its broader abilities, Multiple industrial sectors have associated with this technology to enhance their performance. Main benefits are:

* Boost customer involvement and attachment to the brand resulting in loyalty
* Cost effective and increases productivity
* Acquire potential customers and ensure customer’s satisfaction

Generally, Chatbot can be categorized into two types: AI based and Rule Based. AI based are intelligent bots that uses machine learning algorithms that understand and learns from the experiences whereas Rule-based bots operates from the pre-defined rules and does not learn from experiences. Based on knowledge domain Rule-based bots includes FAQ (Frequently Asked Questions), Single-turn and Retrieval-based chatbots. AI based bots includes Open domain, conversational, task-based, personal assistant and social chatbots.

**(c)AI bots:**  Under Process:

Definition of Chat GPT, Development process, Architecture with example and dialogue engines.

* 1. Approach
  2. Summary

1. Literature Review