

Section: B

Group Project Report: Milestone 1

Course Title: Human Computer Interaction

# Submitted From:

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#### **Problem Statement:**

In academia, students, faculty, and researchers often encounter challenges when using AI tools due to a lack of understanding about how AI functions, biases in AI models, limited contextual awareness, and technical issues. These hurdles can lead to misinterpreting results, receiving inaccurate responses, and relying on a one-size-fits-all approach to learning. Moreover, insufficient digital literacy skills and uncertainty in selecting the right AI tool for specific tasks can impede effective utilization. It is crucial to address these issues as AI integration in education is growing, and individuals need the knowledge and skills to use AI tools efficiently and accurately.

**Target User Group:** Directly involved in education curriculums: student, faculty, researcher, lab assistant.

**Plan to Reach Out the Group:** We're planning to reach out to people who are directly involved in education curriculums: student, faculty, researcher, lab assistant.

Our research Method: Autoethnography

### What research methods do you use? Why?

We initiated the research work through Secondary research from where we went through multiple relevant papers. After that we proceeded with the Primary Research. Here first conducted a survey by circulating a google form amongst different university students, faculties, researchers and lab assistants. Next, we conducted eight interviews of university students that uses relevant services in their day to day academic activities. Once we had gathered all the necessary data from the interviews, we plotted it down in post its in order to prepare an Affinity Diagram.

# How do you reach out to your target user groups?

First, we reached out to our user group, that is students, faculty members, researchers and lab assistants through google forms. From the survey, we chose a few students, graders and lab assistants who are actively involved in multiple academic activities for the purpose of conducting interviews.

### Briefly describe demographics of your participants.

All participants were either students, faculties or actively involved in academic activities on a regular basis. The participants were within the age group of 18 to 23 and 23 to 27.

### What types of data are generated from your data collection process?

We could collect both qualitative as well as quantitative data after these processes. Quantitative data includes age group, occupation, type of AI tools they use etc. On the other hand, our Qualitative data includes the answers to the following questions:

- Please share what AI tool interface you find most user friendly and comfortable to use.
- If you have ever encountered errors, share your experience. (if never then write "No")

And many more.

# How do you record collected data? (e.g., notes videos, photos, audio recordings, memos, etc.)

During the interview the data was collected in two manners. Firstly, notes were made while conducting the interview with appropriate time stamps. Also, the videos of interviews were recorded for further analysis.

# Specify any challenges faced during data collection. How did you overcome those hurdles?

Although the process of data collection through survey went swiftly once the form was launched, we faced challenges getting people to give the interviews. Even though many had answered with an 'Yes' in the form later when contacted many of them refused to sit for a one-to-one session. However, when we illustrated our motive to them, plenty of them responded optimistically and enabled us to successfully collect the required data.

# Mention the final insights that you gained from the affinity diagram.

From the affinity diagram we got a detailed interpretation of people's perspective towards AI tools. It was evident that all of our interviewee were regular users of academic AI tools such as Chatgpt, Quilbot, Google Bard, ChatDoc and Sci.AI. However, some of them mentioned their choice of not using AI generators because the outputs didn't match their visualization. Many of them suggested multiple features that could enhance these AI tools such as many mentioned that it would really be helpful if there was a chatbot where they could provide voice inputs and work with images, tables etc. Also paraphrasing tool could be very useful if one could set parameters such as High Level Words. They also mentioned that if there was an AI tool that could be used for all domains such as image processing, paraphrasing, chat bot etc it would be of very handy. Some suggested that a task manager that schedules students' tasks accordingly using the provided information would be of great benefit to students.

### What did you find out that you didn't already know?

We discovered how each student used these tools uniquely to complete different categories of tasks. We also got to know about some struggles such as the students mentioned even though it lessens the time taken than manual work yet one needs to spend a great deal of time in explaining the question first and then extracting the particular information from the output given that the output provided are sometimes very detailed. We also learned about various types of AI tools used for different purposes.

# What did you confirm that you suspected?

We suspected that the students would mention about getting all these tools under one platform and while talking about their struggles almost 90% of the people mentioned that it would be of great help if they could get these tools under one platform altogether.

Link to the affinity diagram on Miro: https://miro.com/app/board/uXjVNfpWi4s=/