Human Prompting Behavior in LLM Interactions

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ABSTRACT

Artificial Intelligence (AI) plays an increasingly important role in the daily lives of millions of people. Large Language Models (LLMs) are the most prominent implementation of AI that is used not only by experts, but equally by ordinary users as well. LLMs can respond to any textual input (prompts) with human-like answers, leveraging the training data that was used to implement the model. Even though prompting LLMs seems very straightforward, the question arises if it is possible to streamline the interactions with said models in order to optimize outputs. We explore the behavior of a randomized trial of 100 interactions of users with LLMs that are publicly available on ShareGPT. The goal of this investigation is the discovery of reoccurring patterns in behavior, evaluation of human tendencies when interacting with AI models, as well as biases of users in order to understand current behaviors and propose optimization opportunities.

1 INTRODUCTION

2 BACKGROUND AND RELATED WORK

2.1 Large Language Models (LLMs)

○ General information on LLMs, such as their workings, training data, text generation, real world usage, and current limitations

2.2 User Interaction with LLMs

○ Description of LLM use cases, prominently paying attention to ordinary frequent users as we lay a particular focus on daily, and not only expert usage

3 STUDY ON USAGE PATTERNS OF LLM USERS

3.1 Intro and Research Objective

○ Overview of the study goal, the methodology, and the individual steps that will be taken during its course

3.2 Research Method: ShareGPT

○ Information on the ShareGPT platform, its user base, its suitability for the study, and which data we are going to use

3.3 Study Results

3.3.1 Findings. ○ Listing of the results of the study, potentially segregated into categories that can be defined in advance

3.3.2 Observable Trends. ○ First analysis of results with a particular focus on observable trends in user behavior and data patterns

4 DISCUSSION

4.1 Observed Behaviour (Synthesis)

○ Subjective evaluation of findings up to this point with

4.1.1 Why do people interact with LLMs the way they do? ○ Reasoning and informed assumptions on the causes of observed behavior

4.1.2 Prompt Improvement Possibilities. ○ Proposition of ways to enhance prompts themselves as well as associated results, also including findings from related research

4.2 Outlook and Future Developments

4.2.1 Auto-GPT. ○ Introduction to future developments in the realm of LLM interaction, such as autonomous agents which may prompt themselves in the future

4.2.2 Prompt Engineering. ○ Focus on the newly emerging discipline of prompt engineering which is a direct result of the increased significance of LLMs and required prompting competencies

5 CONCLUSION