

University of California, Los Angeles

RESEARCH INFORMATION SHEET

Exploring the Psychological Depths of Large Language Models

INTRODUCTION

Violet Peng, Amit Sahai, and Miryung Kim, from the Computer Science department at the University of California, Los Angeles are conducting a research study. You were selected as a possible participant in this study because you likely possess the educational background and reading comprehension skills to faithfully annotate short stories for various components of psychological depth. Your participation in this research study is voluntary.

WHAT SHOULD I KNOW ABOUT A RESEARCH STUDY?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

WHY IS THIS RESEARCH BEING DONE?

We are embarking on a comprehensive study to explore the psychological dimensions inherent in state-of-the-art large language models (LLMs) such as LLama2 and ChatGPT. While the current applications of LLMs span a variety of tasks, including narrative generation, there remains a significant gap in understanding the psychological depth they can achieve. Our research objectives are twofold:

- To ascertain the capability of LLMs in generating narratives that evoke profound emotional responses.
- To evaluate the extent to which LLMs can assess stories with psychological insights comparable to those of human evaluators.

To achieve these objectives, we have meticulously devised a 5-metric framework aimed at encapsulating the multifaceted nature of human psychological depth. Your expertise and participation are invaluable to the success of this endeavor. We cordially invite you to be a part of this groundbreaking research. Should you choose to contribute, the necessary tools and resources will be made available to you via the links provided.

HOW LONG WILL THE RESEARCH LAST AND WHAT WILL I NEED TO DO?

Participation will take a total of about 5 hours and 30 minutes.

If you volunteer to participate in this study, the researcher will ask you to do the following:

- **Pre-study Survey:** 5 minutes
 - Academic background, experience / confidence with annotating English writing samples
- **Tutorial / Warmup:** 15 minutes
 - Review the descriptions for the components of psychological depth
 - Read a short story (about 500 words) based on a creative writing prompt
 - Review a sample annotation to calibrate
- **Story Annotation:** 5 hours
 - For each of 100 short stories (about 500 words)
 - Read the story
 - Provide your own annotations
- **Post-study Survey:** 10 minutes
 - Confidence with rating after the study, techniques used to determine psychological depth, miscellaneous feedback on the study setup

ARE THERE ANY RISKS IF I PARTICIPATE?

- There are no anticipated risks or discomforts.

ARE THERE ANY BENEFITS IF I PARTICIPATE?

You will not directly benefit from your participation in the research.

The results of the research may benefit society by:

- Highlighting effective prompting techniques for eliciting greater psychological depth from LLMs
- Providing a reliable approach for automatically measuring psychological depth

- Systematically establishing the degree to which short stories generated by LLMs are capable of evoking profound responses in readers

HOW WILL INFORMATION ABOUT ME AND MY PARTICIPATION BE KEPT CONFIDENTIAL?

The researchers will do their best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible, but participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured. As with any use of electronic means to store data, there is a risk of breach of data security.

Use of personal information that can identify you:

From each participant, we will collect their name and email. You will be assigned a unique ID to use throughout the study. This ID will be used to differentiate your contributions from other participants without revealing your identity in the final dataset. Only authorized personnel on the research team will be permitted to map this ID back to your personal information for a limited set of purposes, such as study communications and coordinating study payment.

How information about you will be stored:

Data will be stored in private and secure electronic repositories.

People and agencies that will have access to your information:

The research team, authorized UCLA personnel, and the study sponsor, may have access to study data and records to monitor the study. Research records provided to authorized, non-UCLA personnel will not contain identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

Employees of the University may have access to identifiable information as part of routine processing of your information, such as lab work or processing payment. However, University employees are bound by strict rules of confidentiality.

How long information from the study will be kept:

To ensure the reproducibility of scientific findings, study data might need to be retained for a period long enough to allow other researchers to validate or challenge the results. Typically, data should be retained for at least 5 years from the publication of the results.

USE OF DATA FOR FUTURE RESEARCH

Your data, including de-identified data may be kept for use in future research.

WILL I BE PAID FOR MY PARTICIPATION?

You will receive a \$100.00 eGift card should you complete all of the annotations, warm-up tutorial, and pre- and post-study surveys. This averages to \$18.18/hr given the expected study duration. Provision of the monetary amount will occur within 14 days of the study's completion.

Payment for participation will not be prorated for those that withdraw from the study prior to completion. Our analysis requires a complete set of annotations from each participant and thus we will not benefit nor use partial completions in our final dataset.

WHO CAN I CONTACT IF I HAVE QUESTIONS ABOUT THIS STUDY?

The research team:

If you have any questions, comments or concerns about the research, you can talk to one of the researchers and/or contact:

- Fabrice Harel-Canada: fabricehc@cs.ucla.edu
- Violet Peng: violetpeng@cs.ucla.edu

UCLA Office of the Human Research Protection Program (OHRPP):

If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.

WHAT ARE MY RIGHTS IF I TAKE PART IN THIS STUDY?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any questions that you do not want to answer and still remain in the study.

You will be given a copy of this information to keep for your records.