Consent form

Thank you for your interest in this research project! We are asking you to participate in a research study titled *"Continual Learning for Comprehension and Production for Natural Language Instructions"*. We will describe this study to you and answer any of your questions. This study is being led by Mustafa Omer Gul (Department of Computer Science at Cornell University). The Faculty Advisor for this study is Yoav Artzi (Department of Computer Science at Cornell University).

Your participation in this research is voluntary and you are free to refuse to take part in it. If you choose to participate in this study, you may stop taking part at any time without any penalty and without any effect on the compensation earned before withdrawing. Below is a description of the research project, and your consent to participate. Please read this consent form carefully before starting the task. By starting and continuing with this task, you acknowledge that you understand our consent form, and agree to take part in this research.

PROCEDURES

This research aims to study how feedback received from humans during deployment can be used to continually improve AI models for instruction generation and following. If you take part in this study, you will interact with AI models in the Cereal Bar 2 game. You will either be assigned 1) a leader role, where you write instructions to an AI model and give feedback on its execution performance or 2) a follower role, where you will follow instructions given by an AI model and give feedback on the instructions. In early stages of the study, you may also be assigned 3) a follower role, where you follow instructions given by a human partner. You will be asked to perform a qualification task involving a tutorial and comprehension questions before your first time taking each role.

The qualification tasks for the follower and leader roles will take approximately 5 and 10 minutes respectively. A successful game of Cereal Bar 2 between humans will take 15-20 minutes on average. However, as you will play against AI models, average game time will likely be shorter.

PRIVACY

All of the information we obtain during research will be confidential and will not be associated with your name. Inside the Cereal Bar 2 game, you will be identified by a randomly assigned username. We will log your in-game interactions inside a database within a server hosted by Amazon Web Services. Each individual participant will be identified using a random string unrelated to your worker ID inside this database. Note that we will have access to your worker ID while the study is running.

Please note that this study is being conducted with the help of Amazon Mechanical Turk (for recruitment), Amazon Web Services (for databases and server hosting), and Discord (optional discussion), which are companies not affiliated with Cornell and with their own privacy and security policies that you can find at their websites. We anticipate that your participation in this survey presents no greater risk than everyday use of the Internet.

BENEFITS AND RISKS

Benefits: We hope that the insights gained from this study will help develop AI systems that can better collaborate with humans and adapt during these collaborations. Such AI systems can then improve real-world applications such as household robots. As Cereal Bar 2 is a game, we believe you also may have fun while playing it!

Risks: During the initial stages of this study, you may feel frustrated if your AI partner struggles to follow your directions or if it produces unclear instructions. These AI models will improve in future games as a result of your feedback, leading to less frustration as the study progresses.

INCENTIVES FOR PARTICIPATION

For both qualification tasks, you will be given a base pay of $0.50 if you join. Upon qualification, you will receive a $1.00 bonus for the follower qualification task (~5 minutes) and a $2.00 bonus for the leader qualification task (~10 minutes).

For each game of Cereal Bar 2 you choose to join afterwards, you will receive a base pay of $0.30. If you are assigned the role of a follower interacting with an AI model, you will be given $0.10 for each instruction you complete and give feedback for, provided you follow the guidelines. If you are assigned the role of a leader, or are a follower collaborating with a human leader, you will be given a bonus for each point you gain. We expect that proficient players will obtain $15/hr.

The compensation is not prorated for participants who withdraw before completing a game.

FOLLOW UP STUDIES

We may contact you again to request your participation in a follow up study. As always, your participation will be voluntary and we will ask for your explicit consent to participate in any of the follow up studies.

IF YOU HAVE QUESTIONS

The main researcher conducting this study is Yoav Artzi, a professor at Cornell University. Please ask any questions you have now. If you have questions later, you may contact Yoav Artzi at lillabcornell@gmail.com. If you have any questions or concerns regarding your rights as a subject in this study, you may contact the Institutional Review Board (IRB) for Human Participants at 607-255-5138 or access their website at https://researchservices.cornell.edu/offices/IRB. You may also report your concerns or complaints anonymously through Ethicspoint online at www.hotline.cornell.edu or by calling toll free at 1-866-293-3077. Ethicspoint is an independent organization that serves as a liaison between the University and the person bringing the complaint so that anonymity can be ensured.

YOUR AUTHORITY TO PARTICIPATE

You represent that you have the full right and authority to sign this form, and if you are a minor that you have the consent (as indicated below) of your legal guardian to sign and acknowledge this form. By starting the task, you confirm that you understand the purpose of the project and how it will be conducted and consent to participate on the terms set forth above.

By consenting to participate, you acknowledge that you are 18 years or older, have read this consent form, agree to its contents, and agree to take part in this research. If you do not wish to consent, close this page and do not start our task on Amazon Mechanical Turk.