

Consent to Participate in Interactive Visualization User Study

Introduction/Purpose

You are invited to participate in a research study conducted by Yifan Wu, and Joseph Hellerstein from the Electrical Engineering and Computer Science department at UC Berkeley.

The purpose of the study is to evaluate how people interact with data visualizations using different designs, and share their judgements on absolute and relative changes/differences in the visualization designs under varying latency conditions. The results will be used to understand how accurately people can perform analysis with different interactive visualization techniques and designs in the face of latency. The summaries may be included in future research publications.

You are invited because of your fluency with data analysis, which is a good fit for the audience of the interfaces we are evaluating.

Online Study Procedures

The following describes more information about the study:

- The tasks includes an initial set of instructions and training tasks, followed by one or more judgement tasks. In each task you will be presented with an interactive data visualization and asked to quickly estimate differences or changes in the visualization upon an interaction (e.g. mouse clicks).
- We will collect your responses, timing information, your browser size, demographic information, as well as your email. The worker id will only be used to pay bonuses on completion of tasks, and to correlate workers that complete multiple tasks.
- Your email will not be used to identify you in any other way.
- Each task is expected to take 1-5 minutes, and the total experiment time is expected to not exceed 30 minutes.
- You will be compensated for every training task that is completed, in addition to a bonus if all tasks are completed.
- The study is voluntary. Participation in this study should present no foreseeable harm or risks. You have the right to withdraw from the study at any time or for any reason. You will incur no penalty for withdrawing from the study before completing all tasks, and you will be compensated the full amount for each task completed.

In Person Study Procedures

You may also be invited to complete the study on-site at an office in Soda Hall. We may extend this invite early in the experiment process to work through some bugs in the design. The times will be during business hours — 9 am to 5 pm during week days.

The procedures are the same as that online, with the following additions:

- Your interactions will be observed during your completion of the task, and we may ask you to “think out loud” to explain your interactions.
- We will conduct a brief exit interview involving your experience with the new interface design that we have introduced.
- You will be commented additionally for on-site study.
- Again, you are free to leave at any point during the study and the interview and the participation is completely voluntary.

Benefits

You will not benefit directly from study procedures. However, the results of this study will be used to further the knowledge of interactive data visualization, and the summaries may be included in future research publications.

Risks/Discomforts

Participation in this study is voluntary, and you are free to stop the tasks at any time.

Completion of this study should pose minimal harm or risk to you.

To minimize breach of confidentiality, steps will be taken to secure your response data as outlined in the Confidentiality section below.

Confidentiality

Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used. To minimize the risks to confidentiality, we will do the following:

- We will initially collect the email for payment purposes and then delete the identifying information and replace with a randomly generated unique hash that will help us organize the results but not link back to the participant.
- Your research records, including any and all task response data, will be stored in an encrypted format, on a password-protected computer.
- Only the researcher(s) conducting this study will have access to your study records, and only Yifan Wu will be able to view your contact information — the faculty involved in the experiment will not be able to view the results by personal identifier. Some of you may be taking a course with the professor for this IRB, Prof. Hellerstein, however the identifying information will not be shown to Prof. Hellerstein, and your participation is completely voluntary and **has nothing to do with their grade for the course.**

- This data will be retained indefinitely after the study is over. The same measures described above will be taken to protect confidentiality of this study data.

Compensation

You will be paid by Amazon Credits according to the number of tasks completed in the study at a rate of \$0.2 per task and a bonus of \$3 to \$5 for task completion time and accuracy (ranked with other participants). There will be a bonus of \$3 for in person participants as well.

Rights

Participation in research is completely voluntary. You have the right to decline to participate or to withdraw at any point in this study without penalty or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions or concerns about this research study, please contact Yifan Wu at yifanwu@berkeley.edu.

If you have any questions or concerns about your rights and treatment as a research subject, you may contact the office of UC Berkeley's Committee for the Protection of Human Subjects, at 510-642-7461 or subjects@berkeley.edu.

Thank you for participating in the study!