

Evaluating Crowd Programming Study

INFORMED CONSENT FORM

RESEARCH PROCEDURES

This research is being conducted to better understand how software development environments support software development work. If you agree to participate, you will be provided a software development environment and given one or more short tasks to complete. You will then have time to work on these tasks. To understand how you are working, a screencast will record your interactions with the development environment. Finally, to better understand your perceptions and experiences through the study, you will be asked several survey questions during and after the tasks. Participation in the study will include one session and last approximately 4 hours. This project is funded by the National Science Foundation.

Participation

The inclusion criteria for participants in this study is that participants must be proficient with the JavaScript programming language.

RISKS

There are no known harms or discomforts associated with this study beyond those encountered in normal daily life.

BENEFITS

There are no benefits to you as a participant other than in furthering the research being conducted. The research being conducted in this study may lead to new and improved tools for developers that significantly increase their productivity and/or the quality of the software they create.

CONFIDENTIALITY

The data in this study will be confidential. While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmission. To associate your interactions with the development environment with your survey responses and screencast, your name and Google account identifier will be collected through the surveys and as you log in to the development environment. However, only members of the research team will see your identity. In all reporting of the results, your data will be strictly anonymous. In analyzing the data, participant names will be replaced with a code, and only members of the research team will have access to the identification key linking your identity to your data.

In creating a screencast, it is possible that you might inadvertently capture data containing other personally identifiable data (e.g., the contents of your email) that is unrelated to the study. To minimize this risk, the screen recorder software clearly distinguishes when the screencast is active and what is being recorded to help you ensure that you are only capturing data on your interaction with the development environment. Screencast data collected in the study will be permanently retained in a secure manner on hard drives stored by the research team. The de-identified data (and/or biospecimens if appropriate) could be used for future research without additional consent from participants. The screencast recordings will be used to understand how participants are using the programming environment. Specifically, we will examine how participants are writing code and tests moment to moment during the tasks, observing challenges that developers may face in understanding various aspects of the interface and to understand how developers do or do not use various features of the environment in working on their tasks. The screencast recordings will be uploaded to a secure online storage location by the participants during the course of the study. The screencast would be accessible only by the researcher, the other participants

do not have access to the screencasts. The data will be permanently retained securely on hard drives securely stored by the research team.

Participants may review Skype's website for information about their privacy statement. <https://privacy.microsoft.com/en-US/privacystatement/>.

PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party. If participant be student, student chooses not to participate in the research, student is still responsible for completing class assignments, but their work will not be analyzed by the researchers. You will be compensated \$20 per hour through an Amazon Gift Card.

CONTACT

This research is being conducted by principal investigator Thomas LaToza in Department of Computer Science at George Mason University. Thomas LaToza may be reached by email at latoza@gmu.edu, or by phone at 703-993-1677 for questions or to report a research-related problem. Co-investigator Emad Aghayi in the Department of Computer Science at George Mason University. Emad Aghayi may be reached by email at eaghayi@gmu.edu, by IM at emad.aghayi@gmail.com, or by phone at 571-340-5014 for questions or to report a research-related problem. You may contact the George Mason University Institutional Review Board (IRB) Office at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research. The IRBNet number for this study is 1492465-1. This research has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT

I have read this form, all of my questions have been answered by the research staff, and I agree to participate in this study.

_____ I agree to screencasts being recorded.

_____ I do not agree to screencasts being recorded.

Name

Date of Signature