Consent Form for Participation in Research

Study Title: Personalizing API Documentation

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Sponsors: Google, NSF

Purpose of this Study
The purpose of the research is to evaluate the effectiveness of a new application that helps developers learn about unfamiliar APIs from one another through annotations. The collected data will be used to inform future feature designs for the tool and to evaluate the application. Additionally, data will be collected on how participants use the application, with the goal of identifying and classifying the most useful annotation types. The data collected by users using the application could be shown to subsequent users who have similar API learning needs so that their learning acquisition of the new API may be expedited.

Summary
In this study, you will use an experimental Visual Studio Code extension designed to allow users to create and consume annotations on API documentation. You will use the extension during your normal software development. We will use your created annotations and your usage habits to better understand how helpful creating annotations is when learning.

Procedures
- You will be asked to **install an application on your personal computer for two weeks**.
    - You will follow installation and tutorial instructions on the website: https://catseye.tech
- You will then be asked to **use the application in your daily work for a period of two weeks.**
- If you use the application, you **may be contacted in the future with the opportunity to complete an interview** about your usage of the tool.

At the end of the session you may choose to remove the application or keep it for further personal use.

If you choose to keep the application, the data collected by the application will continue to be used for the purpose of this research until the study ends when you remove the application.

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The software application consists of an extension to the Visual Studio Code Editor. The application has a sign in and sign out functionality using the participants' email. Only the data of signed in users will be recorded. The application will capture the following data from participants:

A. information participants choose to collect using the application (for example, participants could collect a code snippet about how to call the map function in JavaScript);
B. any annotations that participants add to the information captured in (A) (for example, the participant may add a sentence saying why they chose to code snippet).

If you leave the software application installed after the field study, we will continue collecting your usage data for our research record for up to 8 weeks (e.g. 2 months). If you leave the application installed for more than 8 weeks, we will send you a reminder message about how to uninstall the app. The application will also display a message stating that we are continuing to collect your data for research purposes. We will inform you 6 weeks prior to actually starting to discontinue support or remove data from the application such that you have time to migrate your data to other applications or services.

If you uninstall the application once the study period is over, we will only collect your usage information for the duration of the study and no longer.

Participant Requirements

Adults age 18 or older who have some experience using APIs.

Risks

The risks and discomfort associated with participation in this study are no greater than those ordinarily encountered in daily life or during other online activities.

There is a small risk of a breach of confidentiality, as we collect participants' name, email address, and electronic signature. However, we will minimize this risk by translating these personal identifiers to a code, and by ensuring that the papers that have these personal identifiers are stored securely. We do not record any HTTP Post requests that are usually used to transmit login credentials. We will also minimize the potential risk of a breach of confidentiality by using secure transfer protocols and encryption mechanisms to transmit and store the data on the server.

There is a risk of forgetting to remove the application and thus will still be generating research data. We will minimize this risk by explicitly telling them at the end of the lab study that they may remove the application now. If they choose to keep the application, we will contact these participants every 2 months that they keep the application to inform them that they are still generating data for research purposes by using the application and they must remove it to end their participation. The application will also display a message stating that we are continuing to collect your data for research purposes. As mentioned above, we will also contact participants who still have the application 6 weeks prior to our official planned date to end this research to give participants time to respond and remove the application before the deadline.

Benefits

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You may use the application for your own work, if you desire, which may be beneficial for development tasks. We will contact you 6 weeks prior to our official planned date to end this research to give you time to respond and remove the application before the deadline.

Compensation & Costs
You will receive no compensation for participating.

There will be no cost to you if you participate in this study.

Future Use of Information
In the future, once we have removed all identifiable information from your data (information), we may use the data for our future research studies, or we may distribute the data to other investigators for their research studies. We would do this without getting additional informed consent from you (or your legally authorized representative). Sharing of data with other researchers will only be done in such a manner that you will not be identified.

Confidentiality
By participating in the study, you understand and agree that Carnegie Mellon may be required to disclose your consent form, data and other personally identifiable information as required by law, regulation, subpoena or court order. Otherwise, your confidentiality will be maintained in the following manner:

Your data and consent form will be kept separate. Your research data will be stored in a secure location on Carnegie Mellon property. By participating, you understand and agree that the data and information gathered during this study may be used by Carnegie Mellon and published and/or disclosed by Carnegie Mellon to others outside of Carnegie Mellon. However, your name, address, contact information and other direct personal identifiers will not be mentioned in any such publication or dissemination of the research data and/or results by Carnegie Mellon. Note that per regulation all research data must be kept for a minimum of 3 years.

To further protect your information, we will do the following: (1) subjects will be assigned a number. (2) The researchers will store the data files by subjects/ numbers. (3) Any files will be stored in a secured location accessed only by members of the research group or the confidentiality-bound transcription service. (4) The participants can examine the data before submitting it to make sure any information that can identify the participants in their annotations may be removed. (5) Audio recordings and video recordings will be stored in a secure folder with password. (6) In the case that we hire a transcription service, they will be bound by confidentiality terms.

The sponsors of this research, Google and the National Science Foundation, may have access to research records.

Level of Participation

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I agree to install and use the application for 2 weeks, and have my annotations analyzed at the individual level. "Annotations analyzed at the individual level" means we, the researchers, may look at your annotations and their characteristics, such as what website you annotated on, what content you annotated, and the content you added as an annotation. Please do not create any annotations containing sensitive information.

Please initial here: _____YES _____NO

Rights

Your participation is voluntary. You are free to stop your participation at any point. Refusal to participate or withdrawal of your consent or discontinued participation in the study will not result in any penalty or loss of benefits or rights to which you might otherwise be entitled. The Principal Investigator may at his/her discretion remove you from the study for any of a number of reasons. In such an event, you will not suffer any penalty or loss of benefits or rights which you might otherwise be entitled.

Right to Ask Questions & Contact Information

If you have any questions about this study, you should feel free to ask them now. If you have questions later, desire additional information, or wish to withdraw your participation please contact the Principal Investigator by mail, phone or e-mail in accordance with the contact information listed on the first page of this consent.

If you have questions pertaining to your rights as a research participant; or to report concerns to this study, you should contact the Office of Research Integrity and Compliance at Carnegie Mellon University. Email: irb-review@andrew.cmu.edu . Phone: 412-268-1901 or 412-268-5460.

Voluntary Consent

By signing below, you agree that the above information has been explained to you and all your current questions have been answered. You are encouraged to ask questions about any aspect of this research study during the course of the study and in the future. By signing this form, you agree to participate in this research study. A copy of the consent form will be given to you.

_____

PRINT PARTICIPANT'S NAME

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PARTICIPANT SIGNATURE DATE

I certify that I have explained the nature and purpose of this research study to the above individual and I have discussed the potential benefits and possible risks of participation in the study. Any questions the individual has about this study have been answered and any future questions will be answered as they arise.

SIGNATURE OF PERSON OBTAINING CONSENT DATE