

Study title	How is the users' preference on automated testing tool for ML softwares?
Researcher[s]	Prof. Shan Lu, PostDoc Chengcheng Wan from University of Chicago

We're inviting you to participate in a research study. Participation is completely voluntary. If you agree to participate now, you can always change your mind later. There are no negative consequences, whatever you decide.

What is the purpose of this study?

An increasing number of software applications incorporate machine learning (ML) solutions for cognitive tasks that statistically mimic human behaviors. To test such software, tremendous human effort is needed to design image/text/audio inputs that are relevant to the software, and to judge whether the software is processing these inputs as most human beings do. Even when misbehavior is exposed, it is often unclear whether the problem is inside the cognitive ML API or the code using the APIs.

As a result, we want to understand the developers' attitudes towards the automated testing tool of ML softwares.

What will I do?

[Survey phase] Participants will be shown the tutorial of ML API. They are then asked to answer a few questions to confirm their understanding. They are also asked to schedule a time for the interview phase. It might take around 10 minutes for you to finish the study.

[Interview phase] The interview will occur individually with Zoom Meeting. Participants will be granted access to our automated testing tool. All participants are asked to write two Python functions and use our tool to examine their implementation. They are then asked to share their attitude towards our tool. It might take around 75 minutes for you to finish the study.

Risks

Possible risks	How we're minimizing these risks
Breach of confidentiality (your data being seen by someone who shouldn't have access to it)	<ul style="list-style-type: none"> • Data is anonymous. • We'll store all electronic data on a password-protected, encrypted computer.
Online data being hacked or intercepted	This is a risk you experience any time you provide information online. We're using a secure system to collect this data, but we can't completely eliminate this risk.
Amazon could link your worker ID (and associated personal information) with your survey responses.	Make sure you have read Amazon's MTurk participant and privacy agreements to understand how your personal information may be used or disclosed.

There may be risks we don't know about yet. Throughout the study, we'll tell you if we learn anything that might affect your decision to participate.

Other Study Information

Possible benefits	Helping researchers understand how people evaluate an automated testing tool..
Estimated number of participants	200 participants will be invited to complete this study
How long will it take?	20 minutes
Costs	None
Compensation	\$2 paid through after completing the online survey. \$20 after completing the remote interview
Future research	Your data won't be used or shared for any future research studies.
Funding source	National Science Foundation (NSF) is funding this research study.

Confidentiality and Data Security

Where will data be stored?	Our lab's computers with password protection
How long will it be kept?	After the analysis is finished, the data will be removed from our lab's computers and archived on UChicago Box in encrypted form.

Who can see my data?	Why?	Type of data
The researchers	To analyze the data and conduct the study	De-identified (no names, birthdate, address, etc.)
The IRB (Institutional Review Board) at UChicago The Office for Human Research Protections (OHRP) or other federal agencies	To ensure we're following laws and ethical guidelines	De-identified (no names, birthdate, address, etc.)
Anyone (public)	If we share our findings in publications or presentations	<ul style="list-style-type: none"> De-identified (no names, birthdate, address, etc.) If we quote you, we'll use a pseudonym (fake name)
Amazon	Because they own the MTurk internal software, and to issue payment	<ul style="list-style-type: none"> MTurk worker IDs There is a possibility Amazon could link your worker ID (and associated personal information) with your survey responses.
Prolific Academic Ltd	Because they own the Prolific internal software, and to issue payment	<ul style="list-style-type: none"> Prolific worker IDs There is a possibility Prolific could link your worker ID (and associated personal information) with your survey responses.

Informed Consent for Research Participation

IRB #: IRB22-1987

IRB Approval Date: 01/19/2013

Contact information:

For questions about the research	Chengcheng Wan	cwan@uchicago.edu /(312) 391 1552
For questions about your rights as a research participant	IRB (Institutional Review Board; provides ethics oversight)	sbs-irb@uchicago.edu /(773) 834 7835
For complaints or problems	Chengcheng Wan	cwan@uchicago.edu /(312) 391 1552
	IRB	sbs-irb@uchicago.edu /(773) 834 7835

If you have had all your questions answered and would like to participate in this study, click the consent button below. Remember, your participation is completely voluntary, and you're free to withdraw from the study at any time.
