

Consent Form

Online Survey Consent Form

You can also download the full consent form at this link: [Consent Form](#).

Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?

Prof. Imani Munyaka, Prof. Stefan Savage, Prof. Geoffrey Voelker, and Dr. Grant Ho are conducting a research study to find out more about email usage habits. This work is being carried out by Enze Liu, Alex Bellon and Lu Sun, doctoral students at the University of California, San Diego. You have been asked to participate in this study because you are a Gmail user. There will be approximately 300 participants in this study.

Why is this study being done?

The purpose of this study is to understand Gmail web interface's usability, for example, whether you are able to find an email and identify the sender of that email.

What will happen to you in this study?

If you agree to be in this study, you will be asked to:

- Interact with a Gmail web interface and answer some survey questions.

Data collection and analysis:

- Your data will be anonymized and will not contain any personal-identifying information.
- Survey data will be collected and password protected on Qualtrics, while exported survey data will be kept on password-protected UCSD servers. Only the researchers will have access to the information we collect online. There is a minimal risk that security of any online data may be breached, but since no identifying information will be collected, and the online host (Qualtrics) uses several forms of encryption and other protections, it is unlikely that a security breach of the online data will result in any adverse consequence for you
- We will perform statistical analysis on survey questions such as the difference in average confidence score between groups of participants and thematic analysis on open-answer survey questions.

If you sign up via Prolific, your Prolific ID will be used only for the purpose of awarding compensation and will not be shared with anyone outside the research team. It will not be linked with your

survey responses and will be removed from the data set once compensation has been made. (Note that your Worker ID can be linked to your Prolific user's public profile page, so you may wish to restrict what information you choose to share in your public profile.)

For scientific reasons, this consent form does not include complete information about the study hypotheses and the research questions being tested. You will be fully debriefed following your participation in the research.

How much time will each study procedure take, what is your total time commitment, and how long will the study last?

Communicating with us (optional) and responding to our survey will take approximately 10 minutes.

What risks are associated with this study?

Participation in this study may involve some added risks or discomforts. These include the following:

- A potential for the loss of confidentiality. Research records will be kept confidential to the extent allowed by law. Research records may be reviewed by the UCSD Institutional Review Board.

We may need to report information about known or reasonably suspected incidents of abuse or neglect of a child, dependent adult or elder including physical, sexual, emotional, and financial

abuse or neglect. If any investigator has or is given such information, he or she may report such information to the appropriate authorities.

Because this is a research study, there may also be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

What are the alternatives to participating in this study?

The alternatives to participation in this study are not to participate in the study.

What benefits can be reasonably expected?

There may or may not be any direct benefit to you from participating in this study. You may learn more about how to effectively use Gmail's features. The investigator, however, may learn more about the effectiveness of Gmail's design.

Can you choose to not participate or withdraw from the study without penalty or loss of benefits?

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on a questionnaire at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue in this study, you will be required to email us via Prolific or email the study personnel.

You will be told if any important new information is found during the course of this study that may affect your wanting to continue.

Can you be withdrawn from the study without your consent?

The PI may remove you from the study without your consent if the PI feels it is in your best interest or the best interest of the study. You may also be withdrawn from the study if you do not follow the instructions given you by the study personnel.

Will you be compensated for participating in this study?

You will be compensated with \$2.5 after completing the survey based on the \$15/hr rate.

Are there any costs associated with participating in this study?

There will be no cost to you for participating in this study.

What if you are injured while being in this study?

Please call 911 as this study is complete online at the location of your choosing.

Who can you call if you have questions?

After reviewing this form, if you have any questions about the study please email one of the study personnel: Enze Liu (e7liu@eng.ucsd.edu), Lu Sun (l5sun@ucsd.edu), Alex Bellon (abellon@ucsd.edu).

If you have other research-related problems, you may reach Prof. Stefan Savage at savage@eng.ucsd.edu, Prof. Geoff Voelker at

volker@eng.ucsd.edu or Prof. Imani Munyaka at
drmunyaka@eng.ucsd.edu.

You may call the Human Research Protections Program Office at
858-246-HRPP (858-246-4777) to inquire about your rights as a
research subject or to report research-related problems.

Your Consent

By clicking “I agree” below you are indicating that you are at least
18 years old, have read this consent form, and agree to
participate in this research study.

- ☐ I agree
- ☐ I do not agree

Prolific ID

What is your Prolific ID?

Please note that this response should auto-fill with the correct ID

`${e://Field/PROLIFIC_ID}`

Gmail User Confirmation

You **MUST** currently be a Gmail user to participate in this study.

- ☐ Yes, I confirm that I am currently a Gmail user
- ☐ No, I am not currently a Gmail user

Gmail History

How long have you been using Gmail?

- ☐ Less than a year
- ☐ One year or more, but less than two years
- ☐ Two years or more, but less than three years
- ☐ Three years or more, but less than four years
- ☐ Four or more years

Instructions

Thank you for agreeing to participate in our research study titled "Evaluating the usability of the Gmail's web interface". During this survey you will be asked to review an external page where you will review a Gmail account. **Please review this account as you would your own.**

Opening Email

Please go to the link below in a new tab or window and review the

email with the title "**Your year-end report has arrived**". You need to visit this link with a laptop or a desktop. You might also need to maximize your browser size in order for the link to work.

[https://mail-ui-research.web.app/g100/id/\\${e://Field/FINAL_PROLIFIC_ID}/](https://mail-ui-research.web.app/g100/id/${e://Field/FINAL_PROLIFIC_ID}/)

Click next once you have completed this task. If you need the above link again, it will be at the bottom of the survey page.

Probing Action

After seeing this email, what actions would you take next? Please check all boxes that apply.

- ☐ Keep, save or archive the email
- ☐ Click on the view my summary button in the email
- ☐ Forward the email to someone else
- ☐ Reply by email
- ☐ Contact the bank in ways other than email
- ☐ Delete the email
- ☐ Search a term in Google (please specify)

- ☐ Other (please specify)

Name of the sender

Please provide **the name** of the person or entity that sent the email

How confident are you that your answer is correct?

Not confident ☐ ☐ ☐ ☐ ☐ Very confident

Email address of the sender

Please provide the **email address** of the person or entity that sent the email

How confident are you that your answer is correct?

Not confident ☐ ☐ ☐ ☐ ☐ Very confident

Deciding the sender

How did you decide the name and the email address of the person or entity that sent the email?

Via Question During Study

Do you remember seeing something similar to **what is highlighted** in the picture shown below **during the study**?



- ☐ No
- ☐ Yes, and I think I know what it means
- ☐ Yes, but I don't know what it means
- ☐ Yes, and I know what it means
- ☐ Other [Please specify]

Via Question Prior to the Study

Have you ever seen something similar to **what is highlighted** in the picture shown below **prior to the study**?



- ☐ I remember seeing **via** before, and I think I know what it means
- ☐ I remember seeing **via** before, but I don't know what it means
- ☐ I don't remember seeing **via** before
- ☐ I remember seeing **via** before, and I know what it means
- ☐ Other [Please specify]

Guess Via

What information do you think Gmail is trying to communicate by showing **`via`** for this email? Please make your best guess and feel free to refer back to the email.



Why do you think Gmail has chosen to display **`via`** to users for certain emails? Please make your best guess and feel free to refer back to the email.

Elaborate Via Question

Please elaborate on what you think **`via`** means

Your year-end report has arrived



Chase Bank <alerts@chase.com> via r1xaz.xyz
to me ▾

Why do you think Gmail has chosen to display **via** to users for certain emails?

Relationship

Chase.com used or instructed r1xaz.xyz to send the email

Strongly Disagree Disagree Neutral Agree Strongly Agree

Please explain your choice



Debrief

Thank you for your participation in our study. Your participation is greatly appreciated. **This form provides further information about the study purpose and procedures that was not fully disclosed during the consent process.**

Study Purpose and Procedures:

Earlier in this study, in the consent process, we informed you that the study was about whether you could use Gmail and correctly identify the sender of an email or not. **In actuality, our study is about whether you notice that the email you examine has a questionable identity:** its actual sender is different from the claimed sender, and the actual sender is displayed through the `via` indicator. In this study, we seek to understand if you notice the `via` indicator as well as if you understand and make use of its current explanation.

In order to properly test our hypothesis, we could not provide you with all of these details prior to your participation. This ensures that your reactions in this study were spontaneous and not influenced by prior knowledge about certain aspects of the study. The reason we did not disclose our true intention is because we seek to understand the effectiveness of the `via` indicator. If we

were to disclose our intention prior to the study, it would bias the results we collect. We hope you understand the reason for it.

All the links are fake and benign. We do not collect or save any of your personal information (e.g., your bank information).

What is “via” :

If you look at your Gmail account, you will notice that sometimes Google will provide you a sender address with the via and then provide you with another address. Gmail sometimes delivers email messages of which it cannot verify the identity of the sender. When the domain of the purported sender (the email address shown to the user) is different from the domain of the actual sender (email address verified by Gmail), Gmail shows the domain of the actual sender through the `via` indicator. This can happen either due to misconfiguration in a benign case or identity spoofing in a malicious case.

The purpose of this indicator is to help users identify potential spam because sometimes the sender's email may be familiar but the program it was sent through is a malicious entity.

You can learn more about it by searching for “via” at support.google.com.

Confidentiality:

Please note that although the description of the study's purpose

has changed from the originally stated description, everything else on the consent form is correct. This includes the ways in which we will keep your data confidential. All the data we collect will be stored securely on UCSD properties and can only be accessed by the research team.

Now that you are fully informed about the study purpose and procedures, you may decide that you do not want your data used in this research. **If you would like your data removed from the study and permanently deleted please contact the student researcher Alex Liu (e7liu@eng.ucsd.edu) or Principal Investigator Prof. Imani Munyaka (drmunyaka@eng.ucsd.edu).** If you would like your data removed from the study and permanently deleted, you will still receive \$2.50 for your participation.

Please do not disclose research procedures and/or hypotheses to anyone who might participate in this study in the future as this could affect the results of the study.

Contact Information:

If you have any questions or concerns regarding this study, its purpose or procedures, or if you have a research-related problem, please feel free to contact the Principal Investigator, Prof. Imani Munyaka at drmunyaka@eng.ucsd.edu.

If you have any questions concerning your rights as a research participant, you may contact the UC San Diego Office of IRB Administration by calling 858-246-4777 or emailing

You can download a copy of this document here: [debrief document](#).

Please keep a copy of this form or print this from your screen, for your future reference. Once again, thank you for your participation in this study.

I have read the debrief document above and would like to continue. I will email the student researcher Alex Liu (e7liu@eng.ucsd.edu) or Principal Investigator Prof. Imani Munyaka (drmunyaka@eng.ucsd.edu) if I want to opt out and have my data permanently deleted.

Demographic Information

How familiar are you with the following computer and internet items? Please choose a number between 1 and 5, where 1 represents no understanding and 5 represents full understanding of the item.

	1 (No Understanding)	2	3	4	5 (Full Understanding)	Prefer not to answer
Advanced search	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PDF	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spyware	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wiki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cache	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Phishing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select the phrase below that best describes your computer expertise

- ☐ Above Average
- ☐ Somewhat Above Average
- ☐ Average
- ☐ Somewhat Below Average
- ☐ Below Average

Do you work in or hold a degree in CS or IT?

- ☐ Yes, I work in or hold a degree in CS or IT
- ☐ No, I don't work in or hold a degree in CS or IT

How would you rate your knowledge on detecting phishing email?

- ☐ Expert
- ☐ Above Average
- ☐ Average
- ☐ Below average
- ☐ Complete novice

Please state your gender identity

- ☐ Male
- ☐ Female
- ☐ Non-binary/ gender non-conforming
- ☐ Not listed (Please specify)
- ☐ Prefer not to select

How old are you? (eg. 26)

Please state your race/ethnicity (select all that apply)

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White
- ☐ Hispanic or Latino or Spanish Origin
- ☐ Prefer to self describe (Please specify)

- ☐ Prefer not to select

Household income?

- ☐ Less than \$20,000
- ☐ \$20,000 to \$34,999
- ☐ \$35,000 to \$49,999
- ☐ \$50,000 to \$74,999
- ☐ \$75,000 to \$99,999
- ☐ Over \$100,000
- ☐ Prefer not to select

What is the highest level of education you have completed?

- ☐ Less than a high school diploma
- ☐ High school degree or equivalent (e.g. GED)
- ☐ Technical, trade or vocational school AFTER high school
- ☐ Some college, no degree
- ☐ 2 year degree (e.g. AA, AS)
- ☐ 4 year degree (e.g. BA, BS)
- ☐ Postgraduate or professional schooling, including master's, doctorate, medical or law degree
- ☐ Prefer not to select