

Supplementary Material
For submission
“Users’ Expectations, Experiences, and Concerns About a COVID-19
Exposure Notification App”

A. Interview Guide

General questions:

1. How is your experience of living during this pandemic?
 - a. (if not mentioned) Are you working from home? How is your experience so far?
2. Compared to your life before the pandemic, in what ways did the pandemic change your life?
 - a. (if not mentioned) What new things have you tried or learned during the pandemic?
3. What resources have you used to get information about this pandemic?
 - a. (if not mentioned) Have you used any resources to check COVID-19 symptoms, new daily cases in your region, and stages of reopening the economy?
 - b. (if applicable) What methods have you used to check if the information is reliable?
4. What challenges have you experienced during this time?
 - a. (If it is true) How has technology helped you during this pandemic?

Motivations and expectations for learning about exposure to COVID-19

5. For what exposure scenarios, would you like to be informed?
 - a. If so, what kind of information do you want to know about?
 - i. (For each exposure scenario) Why do you want to be informed about this scenario?
 - ii. Since you want to be informed about this scenario, what information would you like to learn about? Why do you want to learn about this type of information?
 - iii. (If not originally brought up by participants) Do you want to know if a COVID-positive patient lives nearby? Why or why not?
(As we are using Ground Theory to analyze data, we modify our interview guide if we notice knowledge gaps that we want to explore more. Some participants brought up the “a COVID-positive patient lives nearby” scenario, and we further explored this scenario with later participants if the later participants did not bring up this scenario themselves.)

Mental models of COVID Alert

6. Now I will ask you to conduct a drawing task. I will ask you a question, and I would like you to draw your answer. The question is: How do you think the COVID Alert works? Please be as detailed as possible and take all the time you need. (In order not to put ideas into participants' minds, we let them draw and explain firstly. If there is any confusion, we ask follow-up questions such as follows.)
- a. (If applicable) What are the functions of the app?
 - b. (If applicable) What technology is being used to detect close contact?
 - c. (If applicable) What constitutes a "close contact"? What do you think about the 2-meter and 15-minute rule?
 - d. (If applicable) How do you think the app determines that a user is exposed?
 - e. (If applicable) What information do you think the app collects from you? What do you think about the data collection?
 - f. Imagine you are a diagnosed user, what do you think you can do with the app?
 - i. (If C-positive users having the option to upload their contact logs was mentioned) What is your opinion about the C-positive users having the option to upload their log?
 - ii. (If entering a one-time key was mentioned) What do you think happens after you enter a one-time key?
 - g. Imagine you are an exposed user, what do you think the app can provide you?
 - i. (If guidelines are mentioned) What do you think is included in the guidelines?
 - ii. (If applicable) What is your opinion about no enforcement for the exposed users following suggested guidelines?
 - iii. (If applicable) How and where do you think the code-matching process happens?
 - iv. What are the differences between Android and Apple users in terms of using the COVID Alert app?
 - h. Now, I will introduce you to another contact tracing app. I would like to learn your opinions about it. I will share my screen and you can read the description of the app. Take as much time as you need. If you have any questions about the description, please let me know.
 - i. What do you think about this app?
 - ii. What do you think are the differences between this app and COVID Alert?
 - iii. If this app becomes available, will you be interested in using it? Why?
 - iv. Which app do you prefer? Why?

Concerns about COVID Alert

7. What positive/negative news have you heard about the app? How do you feel about the news you heard?

8. What challenges have you experienced with COVID Alert, if any?
9. (If participants believe their personal data is collected and used by the app.) What do you think about the data collection?
10. Which part(s) of the app do not you like if any? Why?
11. (when a concern is identified) What methods have you used to address the concern (if any)?

Wrapping up:

12. Is there anything else you want to share with us about COVID Alert or the pandemic?

B. Screening survey

Consent form: By clicking **Yes** below, you consent to us collecting some basic information about you such as your age. This short survey acts as a screening stage for a future interview study with the objective of understanding your perceptions of information-tracking applications during the COVID-19 pandemic.

Your responses to the questions in this survey will only be accessed by researchers associated with the study and will not be shared with any other entity. Your responses will be discarded once the interview participants are selected. Interview participants will be selected from the people who complete this survey. However, completing this survey does not guarantee you will be selected as interview participant.

If you have any questions or would like further information, you may contact the Principal investigator, [Principal investigator] at [email address], co-investigators, [co-investigators] at [email address], and co-investigators at [email address]. Do you consent to participate in this study?

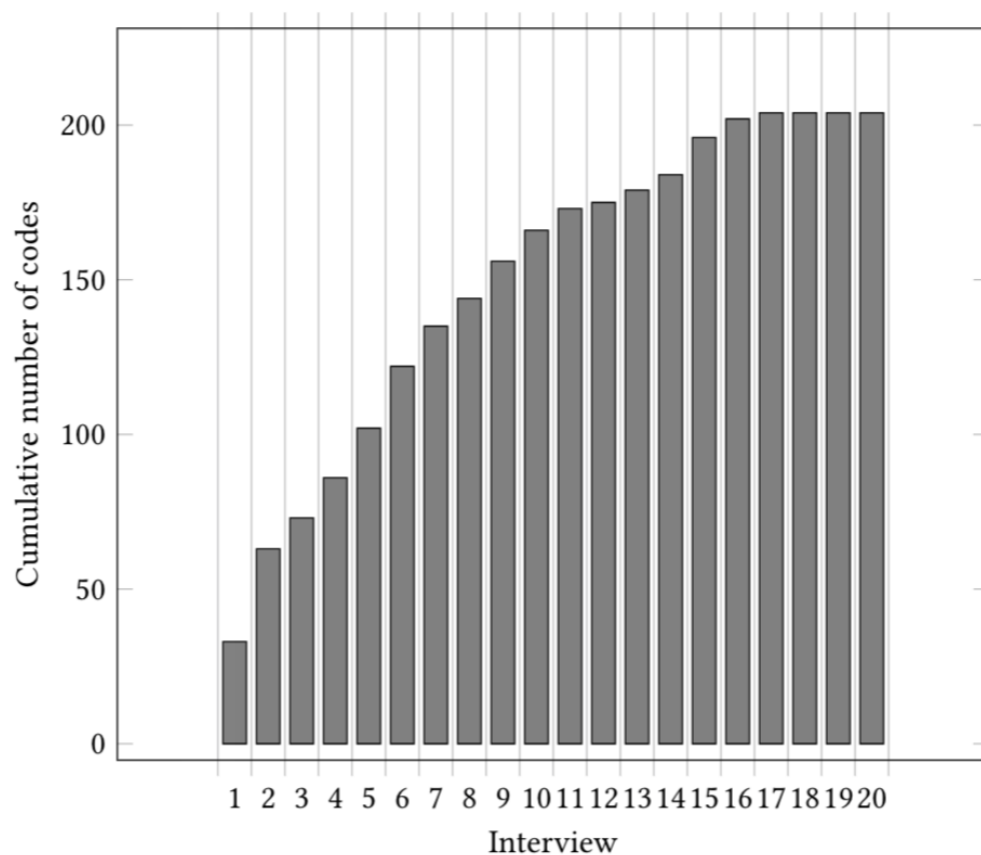
- Yes
- No

1. How old are you?
 - a. Under 19
 - b. 19~29
 - c. 30~39
 - d. 40~49
 - e. 50~59
 - f. 60 or above
2. What is your gender?
 - a. Female
 - b. Male
 - c. Transgender Female
 - d. Transgender Male

- e. Gender Variant/non-conforming
 - f. Other
 - g. Prefer not to answer
3. What is the highest degree or level of school you have completed? If currently enrolled, please select the highest degree received.
- a. No certificate, diploma or degree
 - b. High school diploma or equivalency certificate
 - c. Apprenticeship or trades certificate or diploma
 - d. College, CEGEP or other non-university certificate or diploma
 - e. University certificate or diploma below bachelor level
 - f. Bachelor's degree
 - g. Master's degree
 - h. Doctorate degree
 - i. Other, please be specify
4. What is your occupation?
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5. Where do you live?
- a. Canada
 - b. United States
 - c. Other
 - d. Prefer not to answer
6. How did you find this survey?
- a. Facebook Ad
 - b. Twitter Ad
 - c. Friend/Family
 - d. Kijiji Ad
 - e. Reddit Ad
 - f. Our institution paid study list
 - g. Others, please be specific
7. Are you using any contact tracing or exposure notification app (e.g., COVID Alert, Care19, Health Together, ABTraceTogether)?
- a. If Yes, please list the app(s) you are using or have used
 - b. No
8. Please provide your email address for researchers to contact you if you are selected for a further interview. Interviewed participants will get a compensation of \$25 [currency] of Amazon digital card or via Interac.
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9. Please select the platform that is most convenient for you to use to participate in the online interview session:
- Skype video call
 - Zoom video call
 - I prefer **not** to schedule the interview **right now**. Please contact me through email later.
10. Please enter three separate time slots that best fits your schedule for approximately **one and a half hours** of the interview. Please also indicate the time zone.
11. Time slot 1 (Your first priority): (e.g., June. 19, 10: 30 A.M. - 11: 10 A.M. PST)
-
12. Time slot 2 (Your second priority):
-
13. Time slot 2 (Your second priority):
-

C. Theoretical saturation in data analysis



D. A description of a centralized contact tracing app

A centralized contact tracing app can let users know if they have been exposed to COVID-19 or if they have exposed others. The app exchanges Bluetooth proximity data with nearby phones running the same app, allowing users to be informed if they were in physical proximity to another application user who has become infected with COVID-19. The app does not collect users' location information nor reveal users' identities. During the app set up, the only personal data collected is users' mobile numbers.

If you are a user of this app who has been diagnosed, you will have the option to voluntarily upload the data from the app to the health services. The health services are then responsible for matching contact details, ascertaining potential contact, and ultimately warning users of potential contact. If you are a user of this app and have recently been in close proximity to diagnosed users, you will be notified of the exposure via mobile phone by a tracer who works for the health services.

If you are a user of this app and are neither diagnosed with COVID-19 nor exposed to diagnosed users, the only information that is being collected from you is your mobile number when you set up the app.

Version Date: 2020/07/13 Ethics Application ID number: anonymous

E. Codes diagram

Researchers worked online to relate codes to each other, generate categories, and select main categories.

