Design Research Plan

CSE 440 | Augustina Liu, Bill Phung, Celeste Cayetano, Ethan Cui

Overview

Targetted Participants & Stakeholders

One of the main goals of our design is to give access to online account security to people who may not have any prior awareness or education about tracking accounts and online security. In addition, research shows that as the time of internet is coming, seniors may have a slower speed to adopt the usage of online accounts. Hence, there are a significant amount of online scams specifically targeted at seniors [1]. For these reasons, we think that the potential participant could be seniors, in particular seniors in the Seattle area because they are more accessible for us to reach compared to other groups of seniors. Some other stakeholders to consider in our design are companies hosting those accounts who might have concerns exposing their account information to a third party tracking software and friends and family members of participants who would be affected by a compromised account (spam messages, viruses, etc).

We have contacted the Wallingford Senior Center and have not had any trouble getting access to visit, so we are confident that we will be able to visit there next week to conduct our semi-structured interviews. If we are unable to go to the Wallingford Senior Center, we plan to go to an adult technology class offered by the Seattle Public Library and find participants there.

Primary Design Research Method

For our primary design research method, we plan to conduct semi-structured interviews. While contextual inquiries are the most common option, online account usage involves a lot of sensitive personal data and, for that reason, it would be quite difficult to observe most behaviors associated with account security. Furthermore, account security deals more with an online presence, as opposed to a physical location for activity, and the information that we are seeking out has more to do with finding out what people already know about account security, what their current practices are, and what their biggest security needs are. Therefore, we find the semi-structured interview process the most appropriate design research method.

Questions we plan to explore include:

- Numbers of frequently used online accounts,
- Habits of tracking online accounts,
- Password update frequency, etc.

We hope through these interview questions, we can collect some information that helps us better understand senior participants' habits and pain points when using online accounts.

Alternative Design Research Method

We also think surveys as our alternative design research method. If we won't be able to conduct the semi-structured interview, surveys would also offer us some information and insights to help us understand senior participants' habits and frustrations about managing their online accounts. In our survey, we will provide similar types of questions as questions in our interview, but we will make some of our follow-up questions optional (e.g. If you answer yes in the last question, can you tell us the reason behind that?). Some of them will be presented as multiple choices to help participants answer and we collect quantitative data. We will also use free responses for questions that are difficult to be categorized as options to collect qualitative data and gain more information about our participants, although qualitative data is not very encouraged in surveys. Here are two examples of questions including multiple choice and free response:

1. How comfortable are you using the internet? (Multiple Choice)
   a. Strongly comfortable
   b. Comfortable
   c. Neutral
   d. Uncomfortable
   e. Strongly uncomfortable
2. Why do you think like that? (Free response)

Reference

[1] "Top 10 Scams Targeting Seniors," NCOA, 26-Apr-2018. [Online]. Available: https://www.ncoa.org/economic-security/money-management/scams-security/top-10-scams-targeting-seniors/. [Accessed: 21-Jan-2019].

Interview protocol

Introduction

Hi, we are students at the University of Washington. We are conducting a study on how people interact with the internet, their knowledge on account security and habits. This interview will last no more than an hour. Can we record audio during the interview? We will protect your safety, anonymity, and confidentiality. You can choose not to answer any question and can stop the interview at any time. We only use this information for academic use.

Questions for Targeted Participants

- **Background: Questions that help us know more about participants' backgrounds**
  - What mainly would you say you use the internet for?
    - Why?
  - How comfortable are you using the internet?
    - Why do you think so?
    - What makes you comfortable/uncomfortable?
  - How secure do you feel on the internet?
    - Why do you think so?
    - What makes you secure/insecure?
  - How do you manage your online accounts?
    - How did you to set up those accounts?
    - How do you manage the passwords?
      - How often do you update your password?
      - Do you use the same password or different password for multiple accounts?
- **Confirmation: Questions that help us confirm situations happened before**
  - Have you ever had an account of yours compromised?
    - **If yes**
      - Which account?
      - How do you think this happened?
      - How did you find out?
      - What data was on that account?
      - What was your response?
      - Did you retrieve that account back?
      - What security measures have you taken since then?

- Is there anything that you think would have helped prevent or minimize the damage from the attack?
- After this, how did you prevent things like this happen?
    - **If no**
        - How do you prevent things like this happen?
- Have you ever experienced difficulties remembering and/or restoring your password?
    - **If yes**
        - Which account?
        - How often do you use this account
        - Did you successfully remember/restore your password?
            - If yes, how did you remember/restore your password?
            - If not, what procedures did you take and why do you think they fail?
        - What method do you use to prevent this from happening?
    - **If no**
        - What method do you use to prevent this from happening?
- **Exploration: Questions that help us collect more information about participants**
    - How do you track activity for any of your online accounts? (if they ask for an example suggest bank accounts, login activity, etc)
        - How effectively do these methods work?
    - How much do you trust companies with the data you provided through the creation of an account?
        - How much data/information do you provide? What are them?
            - Do you think is it reasonable to collect this information?
            - Does the amount worry you?
        - What kind of data you think is important to keep private?
            - Why do you think so?
    - Any problems or suggestions related to the security of online accounts you would like to share?

Questions for Stakeholders

Company

- **Background**
    - Does your company require your customers to register online accounts?
        - If so, why an account is necessary to use the service provided by your company?

- - - - ■ If no, why an account is not necessary to use the service provided by your company?
    - ○ What information would you like to collect from your customers?
        - ■ Why do you think this information is important for your service?
  - **Exploration**
    - ○ What information you don't think are necessary to collect from your customers?
        - ■ Why do you think this information is not that important for your service?
    - ○ How would you protect that information from your customers?
        - ■ How effectively do these methods work?

Family Members and Friends

- **Background**
  - ○ How many family members/ friends of you do you think to have online accounts?
    - ■ Are there any effects they brought to you because of issues related to their online accounts?
      - **If yes**
        - ○ What are those effects?
        - ○ How do you think about situations like this?
      - **If no**
        - ○ Why do you think there is no effect?
- **Exploration**
  - ○ What kind of suggestions you have to your family members/friends for this issue?
    - ■ What makes you give such suggestions?

Wrap-up

Here is the ending of our interview. It was great to talk to you. Are there any concerns or questions you have for our interview?

Thanks for your time and we hope you have a great day!