Interview

Overview

We plan to conduct a semi-structured interview in which we will show participants sets of screenshots and prototypes of consent interfaces being designed for an online healthcare platform. We will ask them to imagine tasks that could be performed with those interfaces, explain steps they would take to perform certain actions, describe their understanding of information shown in those prototypes, and give us feedback on what they are shown.

This is part of a design process, and so we may iterate on these prototypes from interview to interview. Participants may be shown different versions of these prototypes from exactly what is attached here. Those versions will all be similar in their purposes as consent interfaces for the online healthcare platform. They may vary on dimensions such as the following:

- Visual interface elements such as colors, fonts, types of selection mechanisms (buttons, menus), position of elements
- Informational text
- Order of steps
- Platform: e.g., may vary whether the interface prototype is shown as it would appear on a mobile phone screen or as it would appear on a desktop or laptop computer

Participants will not be asked any questions that would ask them to reveal sensitive, personal, or health-related information. They will be explicitly asked at the start of the interview not to respond in ways that reveal such information. If a participant does reveal such information over the course of the interview, we will redact overly personal or identifiable information from any recordings, transcripts, or quotations that might be used in analysis or made public in research publications or shared datasets.

Protocol

Contact

We'll generally email participants from [email address]

When giving participants email links to contact us (e.g., from Calendly), we'll direct them to [email address] to make filtering emails easier.

Recruitment & Screening

- 1. Recruitment posts placed on Craigslist and/or our participant pool
- 2. From there, individuals will complete the screening survey by visiting this link:
- 3. We will review screening results as they come in and invite participants, with efforts made to balance the sample demographically when possible
- 4. When a participant is invited:
 - a. Their email and first name will be added to a contact list in Qualtrics
 - b. A unique identifier will also be generated in the Qualtrics contact list: we'll use this to label their data. This must be entered by adding them to the Chatbot Study contact list in Qualtrics and adding "ChatbotStudyID, [identifier]" to the embedded data in their contact info
 - c. We will send them a unique consent form link via Qualtrics mailer
- 5. After completing the consent form, they will be shown the calendar link, as well as automatically emailed (via Qualtrics mailer) a reminder to fill it out
- 6. Participants will be able to select a 45-minute time slot in Calendly
- 7. Participants will receive a confirmation email from Calendly. This will let them cancel or reschedule

Individuals will complete the screening survey, which includes eligibility questions as well as basic demographics. From the pool of eligible individuals, we will invite a diverse sample of about 20 people to participate in the interviews. Invited participants will be sent the consent form link.

After screening / Before interview

Participants will receive a copy of the consent document in an advance email and will be asked to answer a set of questions confirming their eligibility and consent. Participants will also be given a link at this time to sign up for a time slot.

After signing up, participants will receive a secure Zoom link, including a password, in advance of the interview. They will be asked to make sure that Zoom is set up on their computers and that screen sharing is enabled before the time of the interview. We will include links to instructions for this.

Interview Script Starts Here

Consent

We will greet the participants and read the consent review/summary shown below.

[Hi, how are you, small talk]

My name is _____. I'm a PhD researcher in [our research organization]. [We also have X on the call helping to take notes]

Thank you so much for signing up to assist us with our study of online healthcare information tools. You filled out a consent form in advance when you scheduled your interview: do you have any questions about that information? [We will also be prepared to show the full "in advance" consent form above for them to re-read if they wish]

[After answering any questions they have] Just to make sure all of the important details are fresh, I'll summarize the important parts of that consent information again.

I'm running this study along with [PIs] in [our research organization].

This will last 30 to 45 minutes. In this interview, we will ask you questions about your computer and internet use, and we will also show you images of designs for a website and for online tools and ask you questions about those images.

We will be recording audio and video from the interview. We only record video so that when we analyze this later we can see what image was shown on the screen at any point in the conversation, so we don't need your camera to be on. You are welcome to turn it on if you wish, if that feels more comfortable for you, but be aware that your face will then be recorded on the video file. [can change "turn it on" to "leave it on" here if they have already turned video on]

The audio and video will not be shared with people outside of our team, but we will be transcribing what is said during the interviews, and that may be shared in a way that will not be connected to you personally.

Please try not to reveal any information in your responses that would reveal something that is identifiable and private about you or anyone else. An example of something that would be both identifiable and private would be saying a family member's name while also mentioning a medical condition that they have. If you do accidentally reveal something personal, that part of the transcript will be removed before the transcript is shared. If you say something that you aren't comfortable with us having in the transcript, for any reason, please let us know during the interview, and we can remove that part from the transcript.

Your participation is completely voluntary, so if you wish to stop the interview or don't want to answer a particular question, you can tell me that at any time.

When we're done, you'll receive a \$15 Amazon gift code.

Do you have any other questions before we get started?

[If they signed into Zoom with their real first + last name] Before we start the recording, would you change your name in Zoom so that we don't have your real name on the recording?

- Go to Participants.
- Hover over your own name.
- Click More, then Rename.
- Please change it to something less identifiable such as just your initials or first name

Are you in a quiet, private location so that we can avoid accidentally recording anyone else who might be nearby?

Is it okay if I start recording now?

We will start the Zoom audio/video recording only after confirming that participants are willing to be recorded.

We will emphasize at the start of the interview and in any questions related to healthcare tools that participants should not reveal sensitive healthcare information. We are simply interested in asking questions related to, for example, whether they have used health insurance or PHR websites frequently, infrequently, or not at all in the past.

Intro questions

- How frequently do you use the internet?
- What type of device do you use the internet on most frequently? (Computer, smartphone, tablet, other)
- Do you use any websites or apps to keep track of healthcare information, such as doctor's appointments or health insurance information? Add if needed: Please do not tell us sensitive healthcare details—we are just interested to know whether you have used these types of websites a lot, a little, or not at all.
- (If they do use them) What websites/apps?
- (If they do use them) What do they use them for?
- (If they do use them) How long have you been using those sites?
- (If they do use them) **How frequently do you use them?**
- (If they do use them) Do you find them easy or hard to use? Why?

Scenario

We will ask participants to share their screens at this time, and we will send them links to open the images that we are getting feedback on. This will allow users to use their cursors to gesture at parts of the images that they are referring to. As a backup option if participants have technical difficulties with this, we will share these images from our own screens, which will still allow users to view and give feedback on them.

Scenario description

Imagine that you tripped while hiking last week and injured your ankle. At first, you thought it was just a minor sprain, but it is still really painful when you walk, and you are wondering if it is more serious. Since it's painful but not an immediate emergency, you want to make sure that you go to a doctor that is covered under your insurance and want to be able to budget for how much it may cost to visit the doctor and get an X-ray.

The exact details of this scenario aren't the important part, but the main point is that I'd like you to imagine a situation in which you are trying to get some specific questions answered about your insurance coverage, such as how much of the cost of a procedure they will pay for, or what providers you can see in your network.

Discuss steps they would take w/o prompting

- In real life, if you were in a situation like this, what steps would you take first?
 - (If they go ahead and tell us about some option that makes sense among the real-life options that a user would have, great—skip next question and follow up about that)
- (If they don't mention any plausible options or need further prompting) Would you be more likely to call a customer service phone number, visit their website, or do something else? Why?
- If you visited a website, how would you look for answers?
- Have you ever tried to figure something like this out using a health insurance company's website before? How did it go?
- Have you ever tried to figure something like this out using a customer service phone number before? How did it go?
- Have you ever gotten help on a topic like this in some other way? How did it go?

Introduce website / screen share

We are going to look at the website for HealthCo, which is a fictional health insurance company. This website allows HealthCo's insurance customers to sign in to get information about their insurance plans.

We'll ask them to open the following link and then explain how to share their screen (just the relevant window):

 V3 chatbot: https://xd.adobe.com/view/07867082-d9f4-4de0-952c-951ce8452adf-52d5/?fullscreen&hints=off

Keep in mind the scenario with the ankle injury, and let's just talk about it before you start exploring the website or clicking anything.

 If you were a HealthCo insurance customer, and wanted to use the website to find out what HealthCo would cover related to that injury, where do you think you would look first?

We are testing designs for a new tool that allows users to talk to a "chatbot" to get answers to questions about their health insurance.

We'll look at this website together, and I'll have you go through the steps that you would go through if you wanted to use the chatbot in the scenario we talked about. On each page, we'll stop and discuss, and I'll ask you to tell me what options you see and what you think those options might do before you actually take the next step. Please think out loud as much as you can about what you are seeing and what choices you are making.

As we do this, I want to encourage you to give honest feedback. I didn't design this prototype, and it won't hurt my feelings if your feedback is critical. Your feedback is part of a design process that helps us weed out good ideas from bad ones, so we really want to know what works, what doesn't work, and whether you have any other ideas about what would work better.

Questions to ask on each page

Participants may need periodic reminders to voice their thought processes and expectations before proceeding.

Upon showing each image, we will ask questions including and related to the following, asking the participant to vocalize their internal thought process:

- Based on the scenario we talked about, what options do you see here? What option do you think you would choose next?

- What would you expect to happen when you exercise that option? (e.g., click that button)

Giving hints if they are needed

- Don't give any hints unless they voice that they are stuck, say "I don't know," or similar. (Or if they spend more than five minutes silently looking for the option to click without any success, but this is not likely to occur)
- After they have voiced that they don't know what to do:
 - [Nudge them to try *something*]: Do you see any options that you might try?
 - [Nudge again if still stuck]: Feel free to click some potential options and explore to see if you can find an option to proceed.
 - [Give location hint]: Do you see any options in (general area of the screen, like "chatbot window in the bottom right" or "box in the middle of the screen")?
 - [Give hint that basically tells them what element to click] Do you see [element] in [specific location]? What do you think would happen if you clicked that?

After they have completed consent process

After they have reached the point where they can use the chatbot:

- How did you feel about that process overall? (Easy, hard, confusing, clear...)
- How did you feel about the number of steps? Would you have wanted fewer steps, or more?
- Would you feel comfortable using this tool?
- What types of questions would you be comfortable asking the chatbot?
- In real life, does this seem like something you would use? Is there some other way that you think you would prefer to find these answers? Would you prefer this, or would you rather talk to someone on the phone? Why?
- Would you trust this chatbot? Why or why not?
- Who, or what companies, would you expect to have access to the questions you typed while talking to the Chatbot?
- [If they notice the Google Cloud detail]
 - How do you feel about Google Cloud having access to that data?
 - Would you feel differently about using this tool if the data was shared with a different company instead of Google Cloud?
 - What if it was another large company like Amazon or Facebook?
 - What about a small company whose name you didn't recognize?
 - What if it was another division of HealthCo?
- (If not already apparent) How do you think the answers shown to you by the chatbot are created?

- [If clarification needed] Do you think that a computer responds automatically, that a human chats with you in real time, or something else?
- Would you expect to have to do this every time you use the chatbot, or do you think now that you've done it once you won't have to do it again?

(Before they return to the HIPAA Auth screen)

- What do you remember from the document that you saw on the previous page? What was the main point that it was trying to communicate?

Review HIPAA Auth

Have them return to the HIPAA Auth screen.

- How much of this did you read the first time you were here?
 - (If they read at all)
 - What stood out to you?
 - Did you read the summary sentences in the gray box?
 - What about the section headings?
 - Did you read any of the content other than the headings]?
- Take a few minutes and read it now.
- Is there anything that stands out this time that you didn't notice before?
 - How is that different from what you initially believed while doing the task?
 - o Is that surprising?
 - Is that reassuring or concerning?
 - Would that affect whether you used this tool?
 - Would that affect what types of questions you would be comfortable asking the chatbot?

After reading HIPAA Auth

- Overall, was this information reassuring or concerning? How so?
- Was anything surprising or confusing to you? (besides anything they have already mentioned)
- What is your understanding of why HealthCo has partnered with Google Cloud?
- What is your understanding about what may happen to your data or personal information as a result of this partnership?

If you read this on a tool for your insurance company, how likely would you be to agree to it? Why?

- At the top, there are three sentences summarizing this document. Can you describe what those sentences mean to you?
- (If they didn't already explain this) What do you think it means that this data is not subject to HIPAA?

- Why do you think this data is not subject to HIPAA?
- Does that affect how you would feel about using the chatbot?

Final questions

At the end of the interview, we will ask them a final set of questions including and related to the following:

- Overall, what did you think of these designs? (easy, simple, confusing, too complicated, etc.)
- Were there any particular parts that stuck out to you as confusing?
- Do you have any other thoughts or feedback?

STOP RECORDING / stop screen share

Thank them, pay them, and ask about future research

- Thank them for their time!
- We will email the participant the \$15 Amazon gift code and confirm that they have received it
- We will ask participants if they would like to be emailed about future study opportunities similar to this one.