Part 1: Evaluation Plan

Purpose

The purpose of this study is to evaluate the usability and content organization of an early paper prototype of our health insurance mobile application. We are particularly interested in assessing how well potential users navigate through our application. Our hope is that these potential users experience minimal or no difficulty in getting the information they need.

Participant Profiles

The participants we targeted for the evaluation are young adults aged 18 to 30. They are either undergraduate students or young professionals who are new to managing their own healthcare or who report a lack of confidence in their understanding of their insurance plans. These participants are comfortable using consumer technology, especially smartphones.

Method

Our mobile application is designed to allow users to personalize their experiences. Given user input, our application adapts and generates personalized interfaces and information presentations. The personalized nature of the application results in a non-linear, interconnected information architecture. For the purpose of this study, we designed three key tasks that are constrained for practicality. A complete prototype with all possible functionalities would be difficult and impractical to implement in this stage.

Each team member will conduct an evaluation individually with all three key tasks. First, the participant is introduced to the application with a reasonably realistic scenario and prompted to complete the key tasks. Throughout the evaluation, the team member provides prompts to guide the participant, especially if the participant tries to do something outside the scope of this evaluation.

Tasks List

1: Settings

Populate the insurance information fields under settings to personalize user experience.

Intended steps:

1. User taps on “scan insurance card” to open camera.
2. User takes a photo of their insurance card.
3. User removes data from a field that was auto-completed in the last step.

2: Chat

Schedule an appointment after voicing a medical concern.

Intended steps:

1. User submits a medical concern query.
2. User requests a cost estimate for a doctor's visit.
3. User schedules an appointment to address their concern.

3: Preventive Care

Schedule an appointment based on available preventive care benefits. Other functionalities include hiding and unhiding benefits and filtering benefits according to categories.

Intended steps:

1. User filters through medical, dental, and vision categories.
2. User hides an unwanted preventive care service.
3. User restores hidden preventive care service to the list.
4. User schedules a preventive care appointment.

Data Recording

The team member conducting the evaluation will be taking notes as they observe the participant. Participants are encouraged to think aloud and voice their expectations and impressions throughout the evaluation. Our goal is to gain constructive feedback, understand users' expectations, and observe deviations from our expected paths and issues with the interface.

Part 2: Simple Evaluation

Results

Participant 1: “John”

A 34 years old IT professional who has insurance through his job. He owns a smartphone and considers himself to be highly capable with consumer electronics.

1: Settings
Immediately clicked through explanation of how information will be used on this app. Later reported that he did not read this, and was not interested in reading through any notifications.
Does not have privacy concerns about how his information would be used in this app.
Began to manually enter the information fields before noticing and using the scan feature.
After scanning in the information, he commented that he was expecting the scan to fill in all of the fields.
2: Chat
Was unsure if he was speaking to a real person or a computer system
Didn’t find the chat “super exciting”
Reported that the exchange was “self explanatory” and user friendly
Reported that he felt adequately guided through the exchange, but also made a comment that he considered himself a more advanced user and was interested in just typing through the interaction.
Enjoyed being able to schedule an appointment without making a phone call.
3: Preventive Care
Immediately began tapping through the categories.
After successfully hiding the unwanted service, he was unsure how to make it reappear. Reported that the show button was outside of where he expected it.
Expressed that he wasn’t sure he would ever want or need to hide any of the services
Mentioned that he wasn’t convinced that this would make him more likely to use his preventative care benefits.
Reported that this section was “self explanatory”.

Participant 2: “Jessica”

An 18 years old undergraduate student at the University of Washington who has insurance through her parents. She recently acquired her first smartphone and considers herself to be reasonably capable with consumer electronics.

1: Settings
Expressed privacy concerns and questioned how the data will be stored but did not tap on “Why do we ask?”
She felt unconvinced that the app could provide personalized info without her entering personal insurance information. That made her feel like she is subtly forced to submit data.
Noticed the scan insurance card option and immediately used it.
Asked why location is necessary. “Why can’t I do location sharing?”
Said that some information are redundant, under both profile settings & location.
2: Chat
Did not like getting chunks of options, preferred telling the app directly what she wants to be done.
Felt like she had to do a lot of reading and tapping when she just wanted a direct, to-the-point answer.
The chat feature feels too human-like, she wasn’t sure if that was good. She felt like she was trusting and receiving suggestions and advice from a real person.
Liked that she didn’t have to call to make an appointment.
3: Preventive Care
Had no problem filtering through the categories, knew to tap the circular buttons.
Understood that hidden benefits are accessible through “hidden benefits” but confused by the crossed out eye.
Thought that she can bring up “schedule/hide” by swiping right instead of left.
Had no problem actually scheduling appointment.
Questioned why she would ever hide a benefit item.

Participant 3: “Jamie”

A 19 years old undergraduate student at the University of Washington who has insurance through her parents. She frequently uses her smartphone and occasionally uses her computer for schoolwork. She considers herself to be average when it comes to technology use.

1: Settings
Likes to be able to scan card to save time
Likes to be able to delete individual fields
Confused on how app would be personalized with more info input, but trusted enough to put information in anyway
2: Chat
Did not see “type below” prompt under options, the orange buttons were overpowering
“Voice a medical concern” was strange wording
Asked, “What happens if I want both?” in response to a menu
Likes how interactive parts are orange so she knows when input is expected
Thought response menus were reasonable, understood the limitations of AI
3: Preventive Care
Able to quickly navigate through filters
Took a lot of prompting to try to swipe to hide. First went to “hidden benefits”: expected to be able to “add to hidden benefits” from this list, tried to drag HPV shot into the menu. Then tried tapping on Settings, then Home in the nav bar
Noticed how the nav bar was different on Task 2 and Task 3, asked “is this the same app?”
Wondered if she could add the appointment to her calendar or ask what to expect like in the chat

Conclusion

Settings

In general, we received positive feedback about the “scan insurance card” tool to instantaneously populate the insurance information fields. All three participants opted to use this feature instead of manually inputting their insurance information.

None of the participants reviewed the privacy information and why we asked for their insurance information even though both Jessica and Jamie expressed privacy concerns. Jessica doubted the app’s usefulness if she chose to withheld insurance information.

To address these issues, we will develop alternative ways of explaining how our app uses personal data to provide a personalized user experience. One possible alternative would be to design an introduction sequence to the app. A series of slides may be a great way to explain the features of our app, including how personal data is used.

Chat

Much of the feedback for the chat feature centered around a lack of clarity. The fidelity of the prototype may have played a part in some of this confusion. For example, Jamie did not immediately notice the option to provide direct text input and believed that she had to select from the menus of buttons through the chat.

The chat and the preventive care sections have different ways of scheduling an appointment. We will modify the chat’s way of scheduling an appointment to match the preventive care’s way.

Both Jessica and Jamie reported uncertainty as to who or what type of entity they were chatting with. To make it more apparent that this is an automated service and not a conversation with an actual person, we will create a persona for our app similar to Siri or Cortana. Using this method, we can preserve the personification of the system while making it clear that the system is in fact a computer.

Preventive Care

The preventive care was perhaps the most successful screen. John deemed this section to be “self explanatory.” All three participants were able to filter through the medical, dental, and vision categories with ease.

The prototype included a “hidden benefits” menu that allow users to hide certain benefits that they are not interested in. None of the participants were immediately able to find a way to open this menu. Both John and Jessica questioned why they would ever need to hide a benefit.

To address this issue, we will either remove the hiding benefits feature or develop alternative prioritization methods for preventive care services such as letting users star services that they are most interested in so that these services appear at the top of the list.