

Tech Trio

<https://trellykan.github.io/hci/index.html>

Project Description:

There is currently a lack of tools and resources available for dementia caregivers to effectively monitor, understand, and cope with changes in their patients. Therefore, we are designing a smartphone app that will make it easier for dementia caregivers to interact with their patients while providing them with a variety of new resources and methods that may ease the stress of caregiving and provide better help to the patient. There will be a smartwatch companion device for caregivers to give to their patients. The device can track location, monitor vitals, and assist with communicating with the patient.

Overall Tone

The tone of the feedback was pretty positive. There weren't any major problems in our heuristic evaluations. Most of our problems are minor. Most problems were about include consistency and error tolerance. We just have to make little changes to the interface so it is more mobile and user friendly. Other than that, we have a pretty solid high fidelity prototype.

Problems/Questions

Problem Description	Criticality and Why It's a Problem	Response/Possible Solution
On the queue page, seeing the alert and to do lists, I don't know what I can do. The lists are really important to caregivers, but I am not sure what are the possible actions when I am on this screen. The same question is also on the checklist page. In the setting page, "Manage patient profile" should also be an important function, but it looks like an unclickable text.	Critical, we will add the linked page soon.	The alert and to do lists' main function is to remind caregivers what are happening right now and what are going to happen. The possible actions are that caregivers can click on the three point button to see the full alert list and the to do list. In addition, we are thinking about add a shortcut button at that page for caregiver to create a new to-do. In the setting page, "Manage patient profile" will enable caregiver to add new patient or edit existing profile. Click on it will take caregiver to the page right after the registering to do so.
On the Q&A page there is no button to ask a question. So as a user I would believe that this is a	Critical. This is an important feature for the Q&A board.	Yes there will be a button for users to add new question and this is why we create a place for caregivers to enter

Q&A that was made by and posted by the app. I would not realize that I am allowed to and supposed to ask questions.		background information and experience. The question button will be added to the Q&A page.
On the monitor screen, I think it would be useful to just state what each section on the screen is used for. (I know that it tells you temperature, heart rate...etc, but I think it would just be nice to see in words what each square is used for.)	Not Critical. This issue can interfere with user-friendliness however.	The issue is really based on user preference. Some users may think it's too wordy and obvious that the screens are labelled, while other users would enjoy seeing these words appear on the screen. We can allow an action so that if the user taps on the monitor screen, the words for each section will appear, and if the user taps on the screen again, the words will disappear.
I feel that the word 'Queue' is kind of vague. When seeing the word 'Queue' on the bottom app menu, I did not immediately know what this meant and what kind of page it would be leading to. Even when on the page, I wasn't exactly sure what was being queued. As I viewed the page, I eventually understood that this queue of information was being pulled from the controls page. I think this a problem because most things on an app should be self-explanatory and not confusing. Moreover, I also feel like the Control Monitor page should have words on each block that say 'Temperature', 'Blood Pressure', etc. as opposed to little symbols. While this design is more visually appealing, I think elderly dementia patients checking their vitals on a watch might not understand what these symbols represent.	Critical. We want to eliminate as much user confusion as we can on our app, so it's important to us that users immediately know what the "Queue" tab would navigate them to. The vitals for the Control Monitor page are actually meant to be seen by the caregiver rather than the patient, so this issue isn't as critical, though we want to promote as much user-friendliness as we can, and the symbols can interfere with that to some degree.	Instead of naming the tab "Queue", we will rename it to "Daily" to indicate to the user that the tab contains daily items, such as alerts and the to-do checklist for the day. That way, users will immediately understand that the items under the tab are daily tasks or information. Since the Monitor Control page is meant for the caregivers, it is likely that they will be able to understand what the symbols represent. However, since there was another comment about the lack of labels available on the Control Monitor page, we decided to implement a feature where users can tap on the monitor screen for the words of each section to appear. If the user chooses to tap on the screen again, the words will disappear.
Performing the action of going back is not always consistent in	This is highly critical to maintain consistency	Back arrow buttons have been added to all screens of the app to ensure

<p>this app. For instance, if you go on the control page and hit one of those 4 options, there is no way to go back to the main control page without just pressing the control button at the bottom. This is a problem because it is a bit confusing how the back button is offered on other pages, but not offered on any of the control pages. As I was going through the app, I noticed this and was unsure at first how to get back to the main control page without the back button before noticing that I could hit the main control button at the bottom.</p>	<p>throughout the app. Navigation should be obvious, easy, and intuitive. As the feedback pointed out, it may not be apparent that pressing the control button is the way to navigate backwards so we should have the back arrow visible on all screens.</p>	<p>navigating is consistent and fluid.</p>
<p>In the check list , it does not match the real world version of a checklist. Also checklist are used either completed or not and a user would check them off, the checklist in you app appears as more as a schedule.</p>	<p>This issue is critical because the user might try to check things off on the Checklist even though this feature is set up more like a schedule. The user may be confused and waste time trying to perform a function that isn't available.</p>	<p>The feature will be renamed to Schedule instead of Checklist, however, we want to be able to show the effect of after an item has passed or has been completed. The functionality of Indigo is limited, but we would like to be able to implement perhaps greying out or crossing off an item on the schedule after the time has passed.</p>
<p>The only problem with ease of input is missing action buttons to enter info. Its not clear how to enter items to the to do list while looking at the queue. Would have to go through and other menu further away.</p>	<p>This issue is somewhat critical because our goal is to make the app as easy to use as possible and this feedback would be a good implementation to consider. It would help the caregiver to be able to edit the Checklist from the Queue page too instead of having to go to the Checklist page which is more steps to navigate to. However, it is not too critical because the</p>	<p>We will add the functionality so that clicking on an item in the queue will open up the Edit Checklist page for the appropriate patient.</p>

	functionality to edit the checklist is still available.	
It is not clear how to ask a question in Q&A or how to comment in the comment section.	Critical, we will fix the problem for the Q&A page as soon as possible.	There will be a button for users to post new question. Originally, we are thinking about the Q&A board will be a place for common questions that caregivers have to deal with. Then, we think it is better to make the Q&A board a community and for all the caregivers to share their experience and to help each other.
There is no personalization on the user side. I see on the settings page you can add you background, experience, and your e-mail. But I was curious if you could add information about your patient. There is a button for Manage Patient Profile, but don't know if this is something that will be added on later.	Not critical, however, it can confuse our users and possibly ruin the experience.	There is actually a patient profile manager. When you first signup, it will ask you what your patient's symptoms are and their name. You can also add more patients. However, we should add another page when signing up. One page should be added and clearly state that that page is for the caregiver's information. Then after that page, it should be the patient's information but clearly stated that it's for the patients.
<p>In terms of entering information, the app does not have anything that checks whether or not emails are valid, passwords use right amount of letters/numbers, users entered information at all, and so on. This is not a huge problem since I am not sure if this is even possible to do on Indigo.</p> <p>Once you click to add a new task in the checklist, you cannot cancel out. So If I accidental make an error and click the add button I have to carry out the entire task then delete it.</p>	Critical. We want to ensure that our caregivers enter the right information because it is necessary for the app, especially when you are dealing with a health condition.	We want to ensure that our users can easily input information without having to worry about mistakes. Mistakes on an health app can be fatal. Therefore, we definitely want to add more functionality for error checking. This included cancel buttons, "are you sure" alerts, and input validation. With these fixes we hope that there will be less room for error and that our users won't have to worry about making a mistake.
When pairing the watches, if I choose one watch first, I can't unclick it later and it doesn't	Critical. Since the smartwatch is an important component in	We will allow an option in the settings tab that allows repairing of the watches in case the type of smartwatch is

constrain me to choose only one watch for one patient.	keeping caregivers connected with their patients, it's essential that they're able to pair up other types of watches if their watch preferences change in the future and that different patients can pair up with different types of watches.	changed for a patient. When a new patient profile is created, the caregiver will also have the option of starting a smartwatch pairing. If the caregiver chooses not to do the pairing right away, the option will still be available to them in the settings page for each patient.
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Overall Improvement

Our peers mainly made suggestions concerning confusion over the UI aspects of our app. Some of the critical points mentioned were the lack of action buttons available for some parts of the app, such as the availability of a consistent back button and button to add questions on the Q&A board. We plan to address this by adding in the necessary buttons on the pages where they're lacking in the app while ensuring that we maintain consistency with other aspects of the user interface. One other critical issue dealt with information handling, specifically with users lacking the means for verifying information and personalization. We plan to address this by adding in the functionality of error checking along with additional personalization sections when users sign up to create a greater sense of “friendliness” between the user and our application, echoing our motto that our app truly cares for them. One final issue that our peers suggested was making labels available on our monitor board to inform users textually about the different sections available to them. We plan to implement these text features by allowing users to choose whether or not they would like the text to be displayed at the touch of the screen. As we continue improving our design, we will be focusing much more on maintaining consistency while ensuring that users have a mobile and user-friendly experience navigating through Ally.