

## **CSC318 – DESIGN OF INTERACTIVE COMPUTATIONAL MEDIA**

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### **Group 10: Seniors with Diabetes**

#### **Description:**

Essentially, the main problem that our group is trying to solve is figuring an easier way to get seniors to use technology to help them manage their condition with diabetes. Our group has broken the problem space down more specific, and we wanted to address certain issues that seniors tend to have (hard of hearing, hard of seeing / reading etc...). I took the liberty of trying to find an easier way to get the seniors attention when working with the application from a lack of vision / reading.

From Phase 3, I learned that many of the seniors did not want to use newer technology because nothing was wrong with their old one and they thought that with newer technology, as things become smaller, things will become harder to read. I wanted to incorporate the idea of having newer technology whilst maintaining the features that was detrimental for them to use the older technologies. One of the many interviews / observation scenarios our group has had, is that although the seniors start to have worse vision, the details of an image will change, but the colour does not. In that sense, I decided that I wanted to include a multitude of colours so it will be appealing to their eye. At any age, brighter colours will stick out more and will grab the attention of someone who is just scanning with their eyes. In the mockup, there are many bright colours like blue, yellow, green, and light red.

Using this application, one starts at the language menu, in case someone in Canada speaks French, I had to consider the option of having it in French as well. Upon selecting a language, the user will be prompted to either choose an existing account or create a new one. Keep in mind that having multiple accounts may be a waste for a mobile phone application but the usages of tablets at homes is when this feature is useful. Creating a new one leads to a new user page where they can set up a new profile and once it is created they can get right into the application. In the application, there is a bottom bar which leads to 5 main pages throughout the application, which should help them in managing their condition. In addition, there is an overview bar in the middle of the page where it shows / reminds them the last time they used it in case the senior has forgotten. What the senior may notice first is how vibrant and clear the icons are. They can select a different pages which can include to their exercise logs, viewing their past logs, entering a new log (food or exercise), and a page where they can get some advice based on their logs. The last part of the feature list is important to those who are newly diagnosed.

Some of the metaphors that I included are the many iconic buttons that are included in the main page which are also accompanied by a description of what the button does. Even those who are new to the application can decipher what the icons do, for example the Canadian flag in the language page means English, or a gear icon means settings. Even when adding new logs, there is a "+" button which signifies adding more to the already-made list.

By the end of the project, I hope to see but UI more clarified, although this is a mockup draft, I believe it can be more simplified and more vivid for the seniors to use. There are many flaws with this design, but it covers the gist of what needs to be covered in the problem space.

#### **Scenario:**

A new user who is recently diagnosed has no idea how to combat the conditions of diabetes. They are often forgetful of things and hope that this program will aid their needs of an easy program to use. They are then prompted to use this application, because they have no idea of what to do. The user, being from Quebec, gracefully selects the French option and uses the application. Afterwards they create their profile and are on their way. However they do not know what to do initially, so they check out the advice tab on the bottom bar and they read up on what they can do. It tells them to keep track

of their condition using the log systems, and tells them to set reminders of when they want to eat / record their problem. After days of eating and exercising and following the advice tab, they realize that the advice column changes and tells them to exercise a bit more as they are not getting enough. It also reminds them when they should do certain activities such as taking in their medication, and telling them the last time they took in their medication.

**Critical Assessment:**

From the user needs list, most, if not all of the conditions have been met. With the application, they are granted the knowledge of knowing how to stabilize their condition, know what will happen from the advice if they do not, and how to manage it. After those needs have been met, it can also track the user's information such as the food intake, times of when they should take their medicine or times of when they did something. With the reminders from the application, it can help them to create good habits even if they are a regular with diabetes.

This also satisfies most of the design principles; it has built in help descriptions and large buttons with large text to amplify the effectiveness in reading it. It does not have too much of a clutter of icons as I made sure to spread out the bottom bar (making use of the space) and spreading it out so it can be readable and recognizable. The only thing it does not satisfy is the amount of alerts; the application will give out alerts frequently until the user may turn it off in the settings tab.

Moreover, it also satisfies the user needs, it effectively tracks the blood sugar levels (as long as they remember to record it themselves) and with the built in reminders, it lets them know when to take their insulin. It also includes advice and logs of what the user does and it instructs them if they do not know what to do.

The log system can date back to years, depending on how long the user has used the system, and all they have to do is select a certain time period and they can see the logs during that time period. Lastly, this program satisfies the environmental, function, technical, and usability requirements.