Assignment M3

Frances Park
ftsenn3@gatech.edu

***Abstract*—An iPhone application called Holy Bible Recovery Version has been recently released to help users read and study the Bible. While the component for reading and studying has been thoroughly considered and executed well, the navigation to verses and books is clunky, unintuitive, and causes errors. The navigation to a verse or book is a prerequisite to bring the user to their main goal: to read a portion of the Bible. The navigation to the portion may keep the interface from becoming invisible because it takes time and attention from what the user wants to accomplish. For the course, I will be redesigning the navigation to a verse and book so that it will fit within the user's two main motivations of (1) quickly finding specific verses and (2) spending more time to read through the Bible generally.**

1. BRAINSTORMING PLAN

Prior to beginning the brainstorming sessions, I will start by writing down the core problem, which will be kept visible. I will have two different brainstorming sessions on separate days, and each session will last at least 30 minutes. I will generate at least twenty distinct ideas and explore different types of interactions. At least three of the twenty ideas will involve non-traditional interactions, and some of the ideas must involve feedback and others must involve the interactions. All ideas must be written in pen, and no ideas may be crossed out or thrown away. At the end of the two brainstorming sessions, I should have a list of general design alternatives that will be narrowed down later.

2. BRAINSTORMING EXECUTION

In the execution of the individual brainstorming plan, I came up with 30 ideas. The papers that I generated while brainstorming can be found in Figure 1. Some ideas were impractical or complicated, and others involved traditional interactions and could be combined with others. All requirements of the brainstorming plan were met.

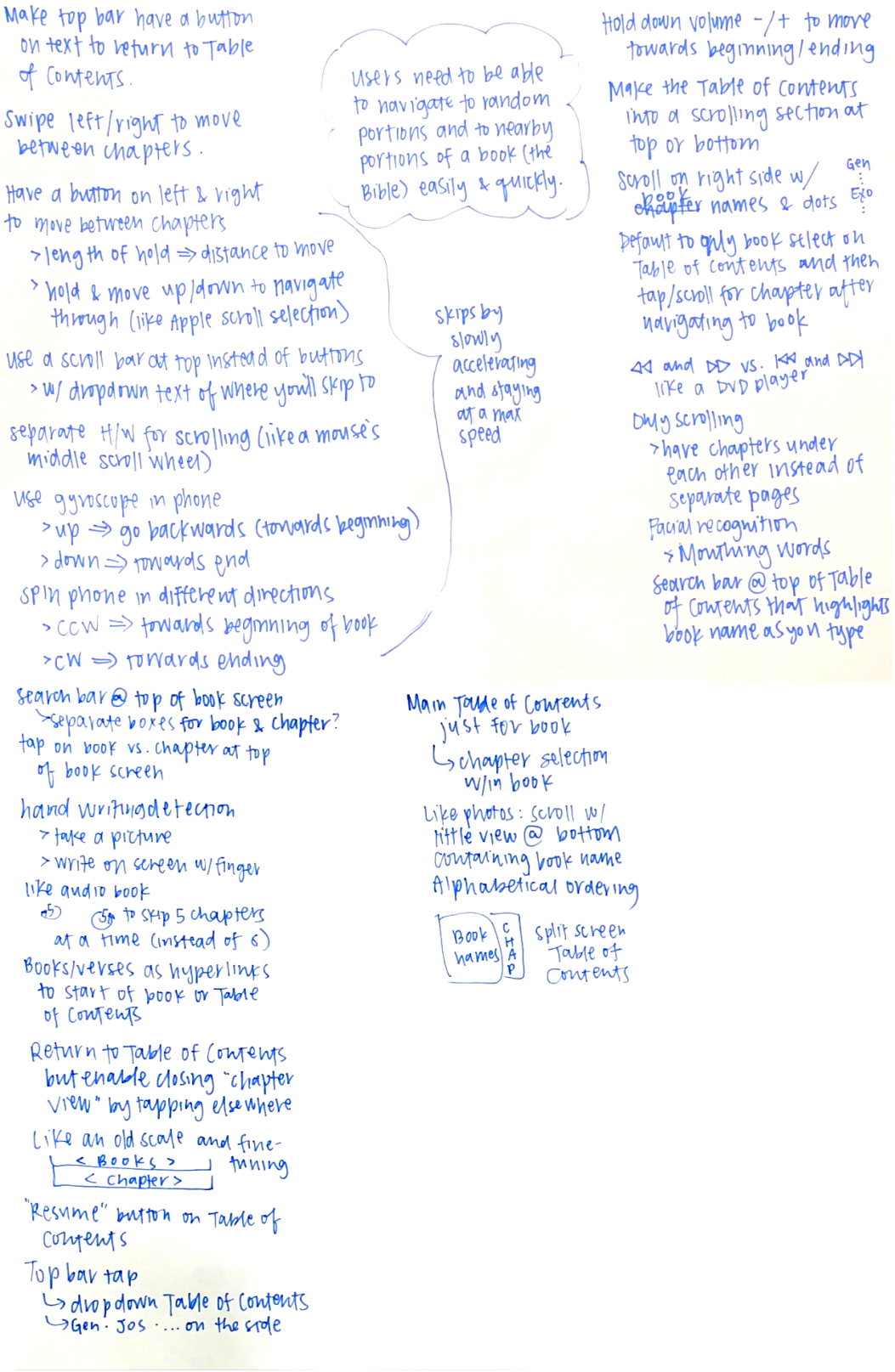

Figure 1— Pages generated in the brainstorming execution.

3. SELECTION CRITERIA

While reviewing the design alternatives, I will use scenarios, user profiles, and user modeling. These three methods will address whether the design satisfies the specified requirements. The ***scenarios*** are displayed in Figure 2. From the first scenario when the user is listening to a speaker that may move between verses quickly, we can tell that the user would want the interaction to be inconspicuous and efficient, which was relevant to the specified requirements. As a listener, their interaction may not have auditory inputs or feedbacks. Also, in the scenario, they may be flipping between a few close chapters. This requires that the app provides more context and an alternative procedure to access verses within the same book of the Bible. In the second scenario, the user only has a small break to read and needs to have a quick navigation to utilize their time well. The requirement for efficiency is emphasized again. The scenarios ruled out the alternatives that require physical movement and facial interactions.

Figure 2 — Two scenarios stacked vertically. In the top one, the user is in a meeting searching for a chapter that the speaker mentions. In the bottom scenario, the user has only a short amount of time and wants to read their Bible.

The **user modeling** is displayed in Figure 3. As displayed in the diagram, there are two main workflows for navigating to the section of the Bible. Currently, only the left one is implemented. Because the interface needs to provide the same functionalities as the existing interface, the left workflow will be kept the same but may have minor changes.

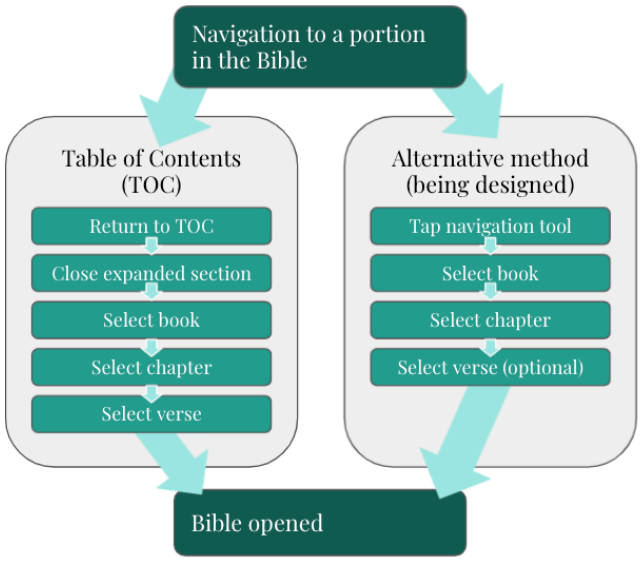

Figure 3 — The two main workflows of the user that both have the same starting point and ending goal.

From the **user profiles**, we have a wide variety of options. They may be in a range from novices or experts related to the Bible, and both their tech literacy and usage frequency of the application may be in the range from low to high. Therefore, it must be easy to use and learn yet efficient. They may be somewhere between reading casually and seriously, which would dictate the amount of time they expect the interaction to take, which again requires efficiency. They have a high motivation to use this application due to the other features.

4. PROTOTYPE 1 — PAPER

4.1. Creation

Firstly, there is a paper prototype that is shown in Figure 4. This prototype maintains the top bar and main text area that are in the original application. However, this redesign makes the text "Ephesians 4" in the top bar into a button. Once the user has tapped the button, a dropdown is displayed over the other text. This still provides context for the user, and it gives the user a way to end the interaction if it was a mistake. By tapping off the dropdown, it will disappear, and the user can continue reading.

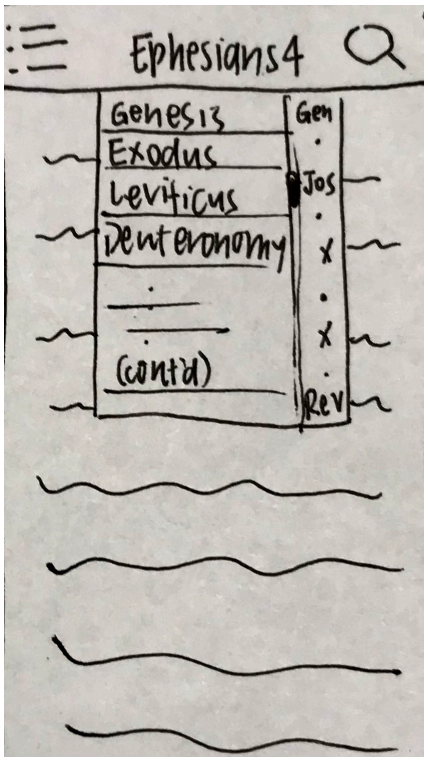

Figure 4 — The paper prototype showing a dropdown that can accommodate the user's scrolling on the left or skipping on the right. The skipping on the right quickly brings the left side to the corresponding section.

Within the dropdown, there is a list of books that the user can scroll through. They can view all books and the entire names on the left, and the right provides a shortcut. By tapping between "Gen" and "Jos", the user will be shown the corresponding books between Genesis and Joshua on the left scrolling window.

After selecting a book, the user can select the chapter in the same dropdown. Instead of displaying book names, at that point, the scrolling dropdown will display chapter names.

4.2. Evaluation

This design meets all the requirements. It would not seek attention because it only involves touching the phone screen, and it does not have any audible components. It has a scrolling dropdown with the Table of Contents, which provides the user's context in the application. This is the alternative method of navigation, and the user could continue to use the main Table of Contents and the original method of navigation. This keeps the application easy to use and

learn, but it has an option to be efficient. Within the dropdown, there are two options that provide flexibility for the interaction. The user can be shown all books on the left of the dropdown and can scroll, and they can skip to the corresponding books by tapping on the right of the dropdown. This is a much more efficient method to finding the correct book.

5. PROTOTYPE 2 — TEXTUAL

5.1. Creation

This design maintains the top bar and main text area from the original design. The main text area contains a portion of the Bible that the user has previously navigated to. The top bar includes a button on the left side to show the Table of Contents and a button on the right to show the search screen. In the center of the top bar will be text boxes that say the book name and chapter, such as "Ephesians 1." When either the book name or the chapter are tapped, the user can type in the text box and view a dropdown of a miniature Table of Contents that can be scrolled vertically. As the user types the book name or chapter into the text box, the other irrelevant books or chapters are filtered out of the list. For example, if someone types "1" in the chapters text box, only the chapters that begin with a "1" will remain in the list. Once the book name has been updated, the possible chapters will also update.

5.2. Evaluation

This design meets all the requirements. It does not require anything that would draw attention, does not have any audible information, and is efficient. Because it has a dropdown menu with the miniature Table of Contents, it keeps the user in the context of their application. This is the alternative method of navigation, and the user could continue to use the main Table of Contents and the original method of navigation. This keeps the application easy to use and learn, but it has an option to be efficient.

6. PROTOTYPE 3 — CARD

6.1. Creation

The card prototype contains four separate cards to signify the alternative method of navigation, and it is in Figure 5. This prototype does not adjust the

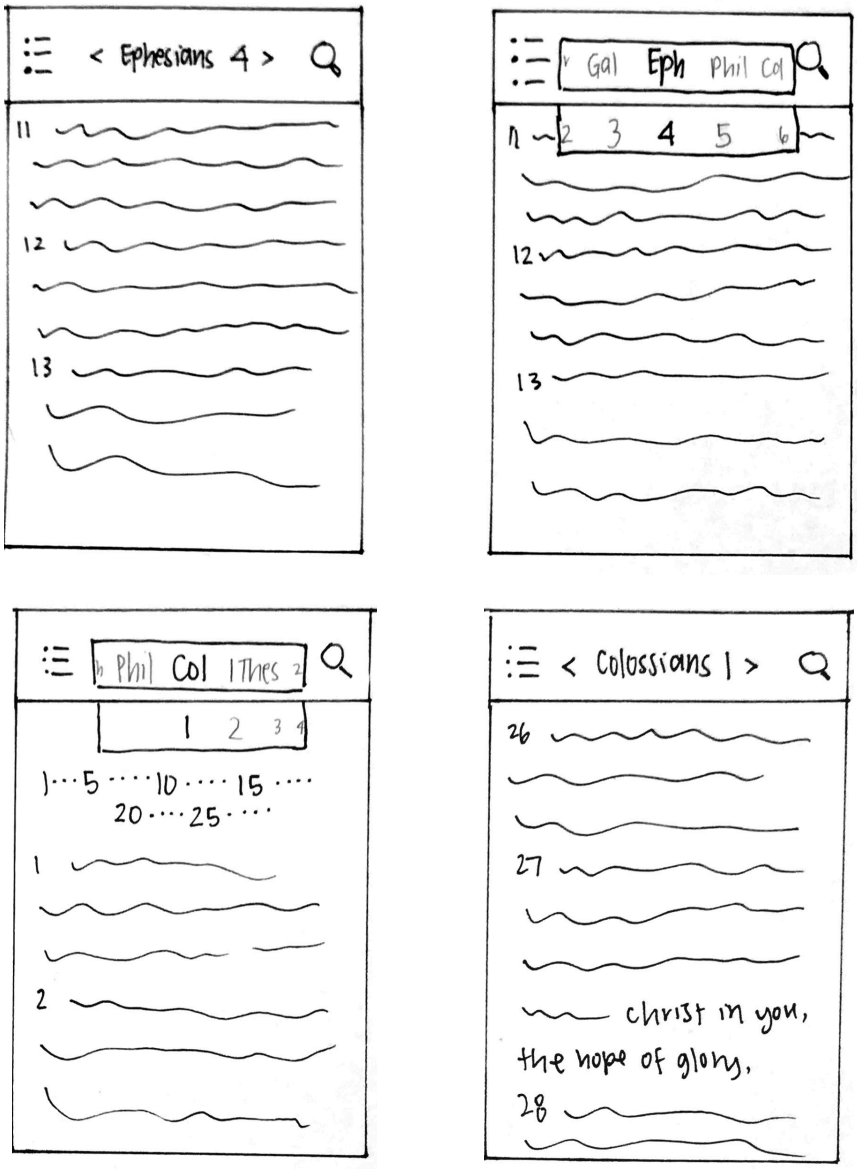

Figure 5 — The card prototype that shows the option to scroll horizontally to find the next book and chapter. The cards are ordered as upper left, upper right, lower left, and lower right.

original navigation to the Table of Contents that is currently in the application, which can be accessed by pressing the button in the top left. The search function is still in the top right. By pressing the text "Ephesians 4" in the first frame in Figure 5, the user is shown the frame in the upper right. The books are shown in a horizontal scrollbar at the top, and the chapters are in a horizontal scrollbar inside a dropdown. By scrolling left or right, the user can navigate to

the correct book and chapter. When they select a new book, the chapter scrollbar is updated. The verses can be selected from the main text area, which is shown in the bottom left frame of Figure 5. Once a verse is selected, the screen will show something similar to the bottom right frame.

6.2. Evaluation

This design meets most of the requirements. It does not have auditory requirements, and it only requires touching the phone screen, which will not draw attention. The user stays in the context of the application and in their Bible reading because only the top bar and the dropdown change. The user could use the main Table of Contents, so there is flexibility. The only requirement that is not fully met is the requirement for efficiency. Because the user has to scroll horizontally rather than vertically, more scrolling is required. This design does not reduce the number of taps the user has to make before navigating to another book or chapter.