KinX

Bringing families together

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Problem and Solution Overview

The family as a social group lacks a platform for sharing, discovery and aggregation of information. Our culture of working and online communications have exacerbated this problem, result in families spending less quality time together. The explosion of data in the context of family has created a new opportunity for better management and social connectivity.

KinX addresses the aforementioned problems in three broad categories:
- *Family* - help families member communicate with each other
- *Organization* - help families operate, such as planning events, parenting, assigning tasks and creating reminders
- *Connection* - help families communicate with other families and get reviews of everyday services

Tasks
- *Task 1: Send a message(easy) -* Sending a message is our most simple and frequently used feature. The user accesses the Chat screen from the Home screen by tapping the speech bubbles in the upper left corner and then selecting the group to chat with. After the selection, the user is presented with the standard messaging screen found on the iPhone. We have not changed this task.
- *Task 2: Send a calendar invite (medium) -* The second task is more complex because it involves creating an event, notification and sharing option. The user accesses the Events screen from the Home screen by tapping the calendar icon below the search bar. From the Events screen, the user may review current events or create a new event. We have not changed this task.
- *Task 3: Share a recipe (difficult) -* To share a recipe, the user need to create a note first by tapping the note icon below the search bar. Similar to Events, the user may review current notes or create a new note. Lack of a dedicated recipe screen makes the creation process more difficult. We have not changed this task either.

Revised Interface Design

Using the results of our testing, we decided to make the following changes to the interface. First, we redesigned the navigation menu to make the Note screen more easily discoverable. In the old interface, the Note screen had to be accessed using the "+" in the lower-middle part of the screen. Provided that most interviewees did not figure out how to access the Note feature, in the revised design, we placed the options in Figure 2 directly under the search bar to provide immediate user access. Second, we learned from testing that our icons were not representative

of their functions. As a result, we replaced a majority of the icons with frequently used iOS icons, including Chat, calendar and etc, as shown in Figure 3.
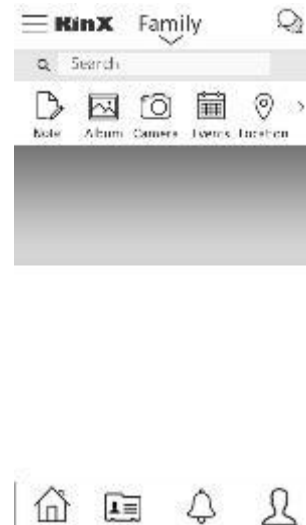

| Figure 1 | Figure 2 | Figure 3 |

Another point of confusion for the users occurred after they have completed event creation. First, the users were expected to be taken back directly to the Home screen after they tapped "finished," as shown in Figure 4. In the old version, instead, they were brought to another confirmation page. After we removed this page, we brought user back to the home screen after creating an event, note and etc, which is indicated by the selection of a sharing option demonstrated by Figure 5.

| Figure 4 | Figure 5 |

In summary, we made the following changes, including ones not detailed above.

- Familiar icons and labels
- Navigation illustrating information architecture
- Options for personalization
- Smooth transition between tasks and the Home screen

Scenario 1

John, a PhD student, would like to send a message to his family. He taps the chat icon to access the Chat screen (Figure 7). Then he selects his family to enter the messaging interface (Figure 8 and Figure 9). After he finishes his message, he may go back to the main Chat screen by tapping the back arrow.

Figure 7

Figure 8

Figure 9

Scenario 2

Susan, parent of two, would like to hold a family reunion next month. She taps the calendar icon to access the Calendar screen (Figure 10). Then she uses the "+" icon to create a new event (Figure 11). After she fills out the event details (Figure 12), she taps the check icon to select from one of the sharing options and publishes the event to her family members (Figure 13).
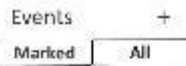
Figure 10   Figure 11   Figure 12   Figure 13

Scenario 3

In the final scenario 4, John has learned a new recipe for rosemary potatoes. He would like to share this new recipe with his family by posting to a forum. From the Home screen, he taps the Note icon (Figure 14), which takes him to the Note Screen. Then he taps the "+" icon to create a new note (Figure 15). In this new note (Figure 16), he fills out the recipe information (Figure 17). Similar to creating an event, he taps the checkmark to share with his family (Figure 18). This new recipe now appears in the Note screen (Figure 19).

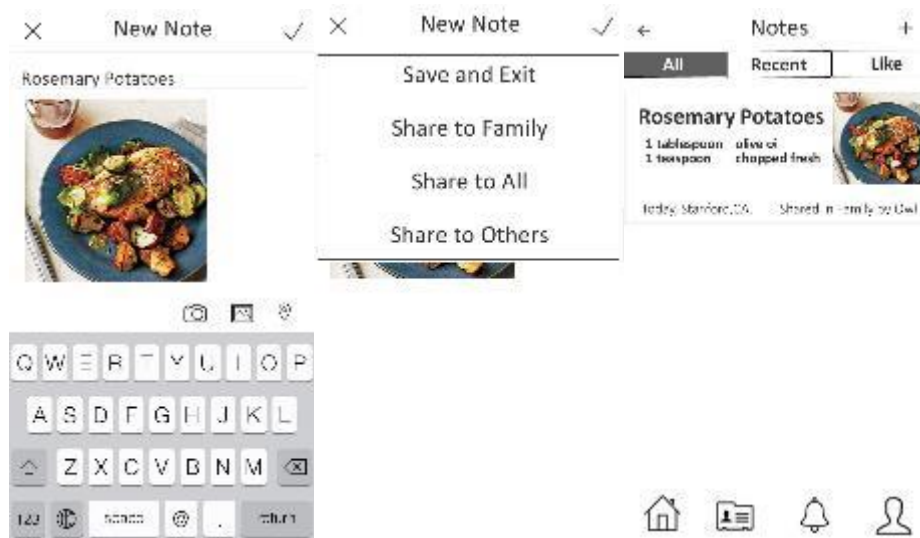Figure 14   Figure 15   Figure 16

| Figure 17 | Figure 18 | Figure 19 |

Prototype Overview

Tools

For tools, we used InVision, which was recommended by the course staff. The tool allowed us to easily upload our design and collaborate within the team. Creating "hotspots" enabled user interaction between different screen was very simple, which involved dragging a rectangle over an area and defining the screen to move to after some user action. The tool allowed us to comment directly on the design, which provided an easy way to track changes. However, the InVision tool did not provide for dynamic changes within a specific screen, such as pull-down menus, fill-in text fields and toggle buttons. This was the only limitation we found with the software.

We also used Adobe Photoshop to create the images. With limited experience in Photoshop, we were able to create basic prototypes, but this was not an issue since we have been focusing on the user interaction and the flow of the application.

Limitations/Tradeoffs

We created enough screens to demonstrate the core features of each principle problems: family, organization and connection. As a result, most of our screens are directly related to the three tasks that we have outlined above. For example, in family, we implemented the chat feature while forgoing photo sharing. As a result, the album icon do not provide any functionality. Some other icons that do not do anything include:
- Camera
- Location
- Personalization (The ">" icon next to Location)
- Contacts
- Alarm
- Profile
- Search

- Hamburger menu

Another limitation is the use of grayscale, since use of color might help with navigation and indicate relative importance. Lastly, the passage through the tasks in our application is relatively linear. This means that we might have missed certain edge cases that could decrease usability. We accepted these limitation because we really want focus on the three main tasks that we want user to accomplish and remove any pain points related to finding the specific features, navigation and sharing.

Wizard of Oz Techniques
Using the InVision tool removed most needs for Wizard of Oz techniques. However, we did have to manually reset the Home Screen for each experiment, since we did not implement the functionality to remove added notes and calendar invites.

Hard-coded Features
We had to hard-code the screens that required user supplied-information. For example, in the note feature, we hard-coded the recipe information to allow the user to focus more on the creation and sharing process vs. selecting a picture and actually typing the details of the recipe. We also hard-coded the event details, since there many possible combination of event type, date and etc. In another instance, we hard-coded the family contact information, since a user could in theory create a variety of groups, such as family, grandparents, etc. In summary, we hard-coded features that was impossible for us to account for every use cases.

Prototype Screenshots
Most of the screenshots are shown above. Few additional screens are listed below:
- A screen that allows the user to filter the forum by the type of relationship (Figure 19)
- A screen that shows the user what the Home screen looks like after the user have added either a note or event to the application (Figure 20)
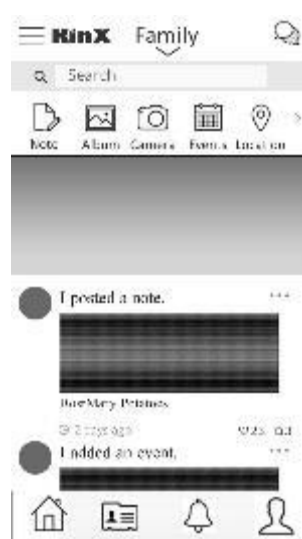

Figure 19   Figure 20