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

Contextual Inquiry Customers

Interviewee J1

Interviewee J2

We interviewed our customers using the master-apprentice model by visiting them at home and at place of work to understand how they communicate at and away from home. For example, one of our interviewees was working at Starbucks when we spoke to him. We another visited another interviewee at her home, where she lives with her daughter. We observed them using their mobile device and asked questions about their experiences.

B1, S1 and S2 fit into our target users as upcoming professionals who want to maintain communication with their families.
- B1 is 20-year old male student who is a friend of Brandon. We recruited him because him and his family have are all very close. They are a large family (5 people), they speak often and are spread all across the country except for one who lives at home. He communicates through Facebook and texting.
- S1 uses a variety of technologies (ex. Viber, Skype, Facebook Messenger) to stay connected with his family. His primary device is a cell phone and a laptop, while for his parents are tablets. His family travels a lot so the time difference can make communication difficult.
- S2 communicates with his parents using FaceTime, texting, and in-person. His extended family has a messaging group on Facebook. He values the recommendation between his friends and online services like Yelp equally.

B2 and J2 fit into our target users as busy parents that need to manage multiple lines of communication.

- B2 is a single mother of two children. She deals with having one kid across the country and other at home. She uses her computer daily and iPad while traveling. We interviewed her because she often has to deal with large communication gaps between the kids and the father. One of issue she deals with is planning for weekends with her children (kids alternate weekends at the two houses).
- J2 is 30-year old visiting scholar from Tongji University. Her family members include a 9-year daughter and her husband who lives in Shanghai. She uses WeChat on Samsung mobile device to send photos and texts, but no video calls.

J1, W1 and W2 fit into our target users as those that wished their families shared more about their life.
- J1 is a retired high school teacher with 2 daughters and 5 grandchildren. She likes to communicate with her family through texting and checking children's Facebook posts. Her children are busy at work and often forget to tell parents about their life, business and families.
- W1 and W2 are parents of two children and communicate only through phone calls. They speak to relatives in China using Skype and hand-written letters. They would like to hear more about their families. Technology at home is limited to personal computers.

Contextual Inquiry Results

People use many tools to communicate, sharing photos and videos, and organize family-related events. Texting is the predominant form of communication, followed by Facebook and in-person. Usage of these tools vary by age. We found mobile application and Facebook are used by younger people while texting and in-person communication is used by older people. Some families also have formed groups on the chat applications for their immediate family and relatives.

Family members are often separated by long distances due to traveling and permanent residency changes. Because of the time zone difference, it is often difficult to coordinate times while traveling. When the family member is working, it could be hard to find time in their busy schedules.

Almost everyone indicated that they value the opinion of their family and close friends higher than reviews online on websites such as Yelp. However, one person said that his family uses Yelp everyday and trusts its review.

Technologies greatly vary among families. W1 and W2 have a landline and personal computers at home, B2 uses her tablet and personal computer, S2 uses FaceTime and S1 had several smart devices (ex. smart tv, Crestron). Even with technologies, families may not be fully utilized. J1 has a Facebook account, but only use it to read her children's status updates and play online games.

Education is very important for families with younger children at home. Most of the users in this case frequently checked-in on the completion of homework.

Task Analysis Questions & Answers

Who is going to use the system?

Our target customers mainly consist of people who desire to maintain and strengthen the bonding among family members and receive trustworthy reviews and recommendations from family friends. During the contextual inquiry, the interviewees from a large family or a family that is set apart geographically reported the family communication gaps and wished for a more efficient way to arrange different schedules and get things done. Also, some interviewees said they would treat the feedback from intimate friends more seriously than online reviews. Our product aims to boost the intimacy within families, help them to schedule family events and to-dos and offer feed of recommendations through a private sharing platform only accessible by close friends.

What tasks do they now perform?

We break tasks into three categories: Intra-family communication: intra-family organization and Inter-family connection.
- *Intra-family communication*: Most interviewees currently use phone calls, texts and emails to keep in contact with other family members and prefer face-to-face communication when dealing with important issues. Younger generation also use mobile app like Facebook, Twitter for real-time communication while seniors reported that they tended not to post on social media but only read their children's news.
- *Intra-family organization***:** For large events like family reunions, most interviewees email each other to confirm specific details on time, location and the types of activities. Household chores are either listed on a white board, discussed in a group chat or face-to-face.
- *Inter-family connection***:** Most of our interviewees keep in touch with friends on social media. When planning on an event including several families, they use phone calls, usual texting, emails and group chatting applications. Some interviewees also mentioned that they played mobile games with relatives and friends, such as "Words with Friends" to obtain a sense of connection.

What tasks are desired?

Some interviewees expressed the desire for the company of family members and more knowledge on their life. For example, K.T. said she would like to know more about her two daughters' life but she was concerned of possible disturbance. Others talked about adjusting schedules to find opportunities to spend quality time together. A visiting professor at Stanford mentioned the inconvenience to arrange video calls with her husband in Shanghai, where the local time is 15 hours later than California.

How are the tasks learned?

Traditional communication approaches like phone calls, usual texting and email are widely-accepted by the masses for decades. Novel contact methods (e.x. mobile apps) are usually introduced to users by their relatives and friends. Young generation always learn about the new apps from their peers and teach themselves their usage, while elderly need their children or grandchildren to provide instruction.

Where are the tasks performed?

The tasks are performed at various places depending on the occupation and education status. Those attending college performed the tasks at school, most of the interviewee at home, and some on road if they are traveling.

What's the relationship between customer & data?

The main benefit of this application is the consolidation of data under one roof. Now, much of the data your family needs to communicate will be in one place. This will decrease the communication gap amongst family members and will allow them to see everything that's happening within the family in a world where information is spread out all over the place. Having a calendar that syncs your business life with your personal life will make it easier to find opening to enjoy quality family time. Having an organized family to-do list will create a more efficient household in which it is easy to allocate and recognize tasks that need to get done. Being able to gather information and advice from your trusted friends will make you more comfortable with the people you let in your home, or keep with your kids. All of this information will be readily available wherever you are.

What other tools does the customer have?

Currently, families use multiple platforms to communicate and organize within the family. The main form of family communication occurs via the phone (texting and calling). A close second are mobile apps such as Facebook or WhatsApp. Chores are either a verbally agreed upon task or are written up on a board in the house. Many people use a calendar although they are usually not synched up with other family member's calendars. Most people use the various platforms KinX will be utilizing but they are all scattered, not readily accessible, and not created collaboratively.

How do users communicate with each other?

The main form of family communication occurs via the phone (texting and calling). A close second are mobile apps such as Facebook or WhatsApp.

How often are the tasks performed?

Frequency range from 3-4 times every day to 1-2 every two weeks. Most of the customers indicated that communicate to their family every day through texting.

What are the time constraints on the tasks?

Traveling, working and busy schedules are constraints on when family can communicate with each other. While traveling, it is difficult to coordinate across different time zones. We also had one customer that indicated a divorce has created gaps in communication between the father and children when planning for the weekend.

What happens when things go wrong?

When families fail to stay connected, some members feel left out of the important moments in each others' life. When planning for events, friends and family could miss out important information and updates. This creates stress in our already overworked lifestyle.

Revised Tasks

Communicating with families members (high frequency, high importance)
Majority of interviewees communicate by texting and phone calls, which is static and requires coordination, which can be difficult while traveling and/or in different time zones. We can reduce the friction by adding social features, such as allowing families to share status updates and photos. Users can choose with whom and when they want to share. Family members can view all of the update in one place where they can save and return to it later.

Organizing family activities (medium frequency, medium importance)
Using a myriad of tools to organizing family activities contribute to the complexity of this task, such as Google Calendar for events, WhatsApp for texting and Gmail for emails. By centralizing these needs into one place, families won't have to check different platforms and risk missing out on important updates. Each member of the families can quickly view their tasks and upcoming events without any miscommunication. They also won't have to check multiple calendars for availabilities.

Connecting with other families (low frequency, medium importance)
Families value the opinion of other families higher than online reviews. Using this application, family could easily gather trusted opinions, without having to communicate with multiple people. This information is visible to the people in their network, removing the need for others to repeat the task to finding reviews.
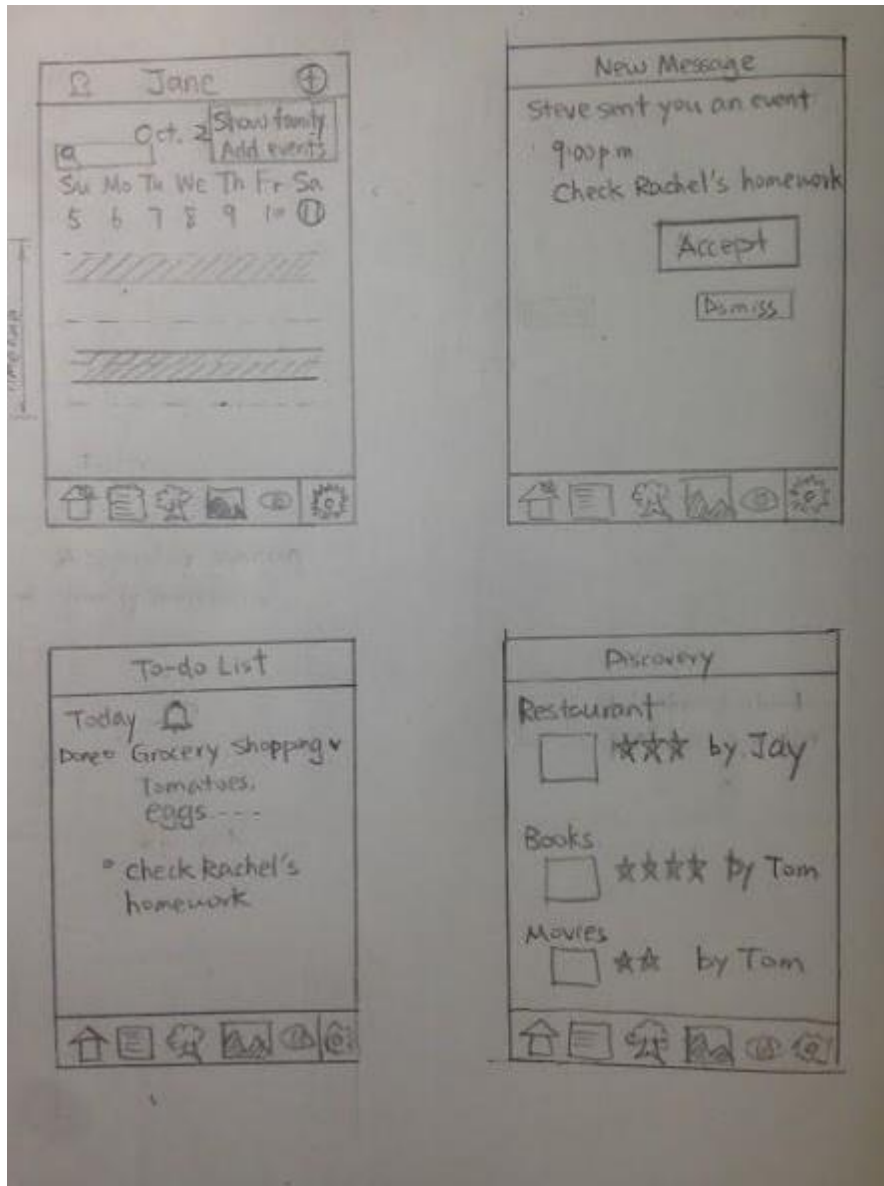
Application Ideas

We propose the following application ideas.

- *A mobile applications on the iOS or Android platform*. It would have multiple screens for each tasks and can be used on smartphones or tablets. This application is very accessible for younger family members and provides a lot of flexibility for frequent travelers.
- *Web application*. This could be used on smartphones, tablets and personal computers. However, offline access would be limited.
- *SMS-based application*. The application uses simple text prompts to navigate different features.This would be easy to use, considering most of the communication already takes place over texting. Seniors might have an easier time learning to use the new application.

Application Idea	Significance	Feasibility	Interest
Mobile	Yes - could impact every family	Yes	Yes
Web	Yes - could impact every family	Yes	No
SMS	Yes - could be used by greater percentage of the population	Yes	No

We decided to proceed with the mobile application because it would appeal to the younger members of the family while maintaining the ease of use for everyone else, especially when traveling or away from home. The mobile application is highly feasible due to the programming skills of the team. We could also make SMS-interactivity one of the features to help senior members of the family.
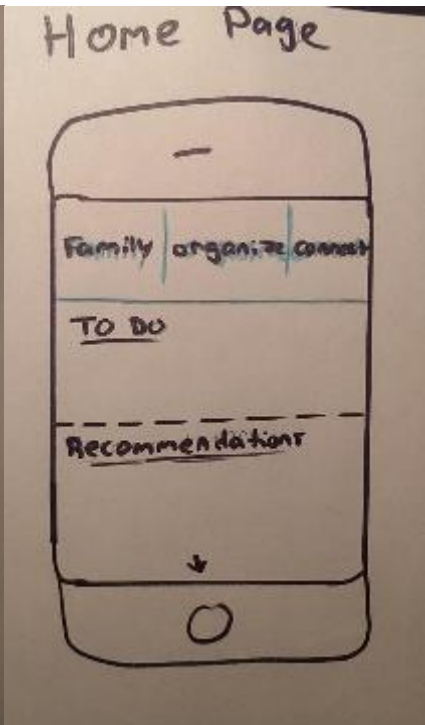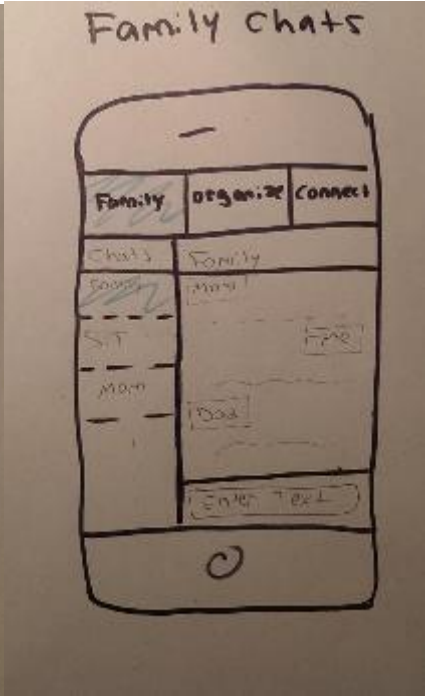
Sketches

Design 1 - Jackie

Design 1 that focus on family organization, with one for messaging and one for discovery of reviews.

Design 2 - Tony

Design 2 focuses on the social aspects of the application. The users is greeted immediately with a feedback of their family's activity, with another screen to view status of friends.

Design 3 - Brandon

In this design idea, the tasklist and reviews are on the homepage while calender is split into its own screen.