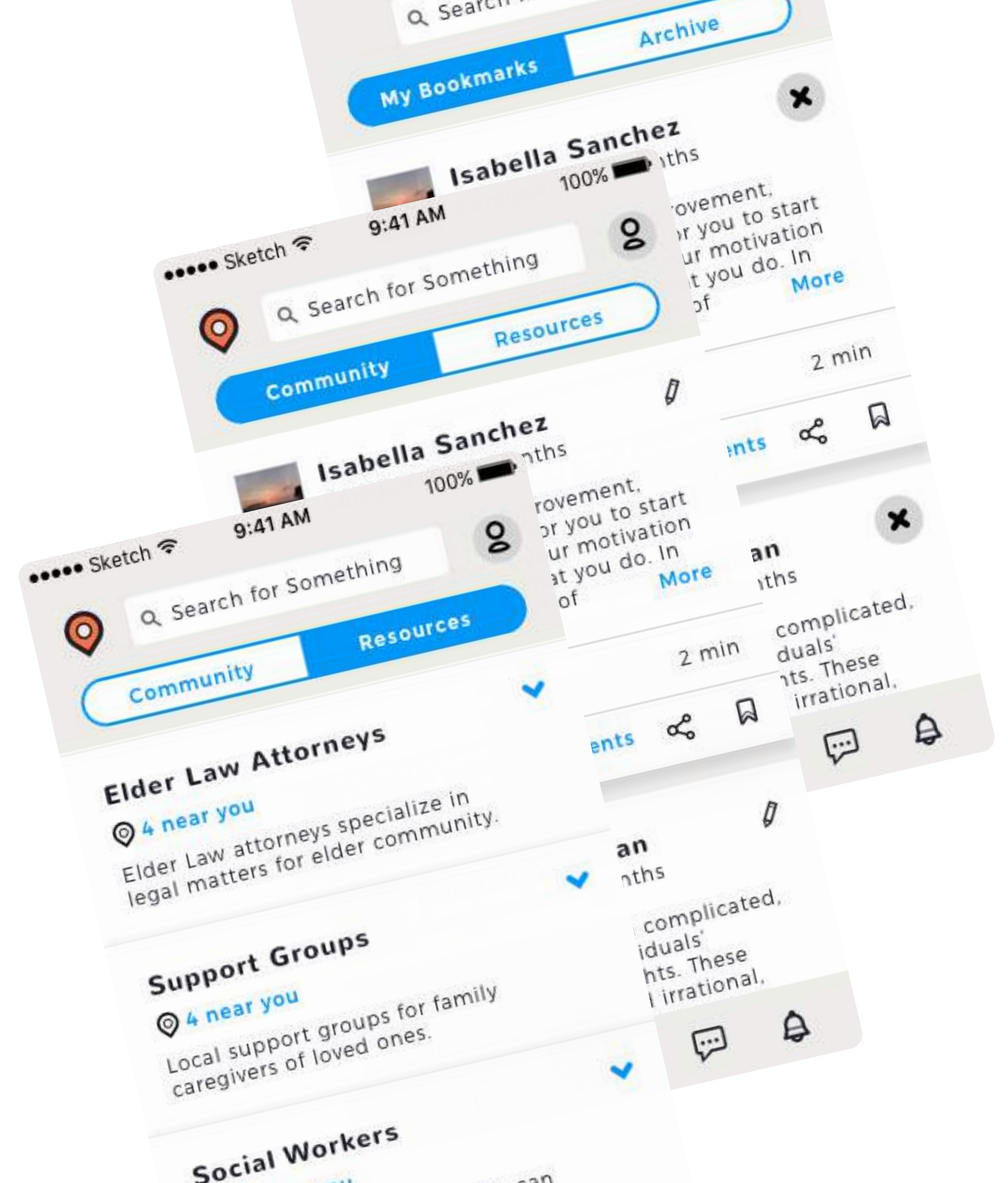


Case Study: Care Sandwich

An app for the caregivers of loved ones with Alzheimer's



Our Purpose

Family caregiving is a choice many people face as our loved ones age. Caregivers are increasingly younger and more tech savvy as first-time parenting is trending older.

As caregivers, my wife and I learned directly how challenging and stressful caregiving can be. We are part of a younger, growing demographic that is juggling our families, careers, friends, and aging parents. Many people starve for assistance as they try to navigate the sea of caregiving (financial, legal, medical, emotional) oftentimes suffering health problems as a result.

Care Sandwich is an app designed to provide caregivers with a nourishing sandwich of community support and local resources recommendations. The goal is to connect family caregivers with community members who share the same experiences, to help each other reduce stress and anxiety, so they might have more space for their own lives.

Relevant Stats

35% of caregivers for people with Alzheimer's or another dementia report that their health has gotten worse due to care responsibilities.

More than 5 million Americans live with Alzheimer's. By 2050, this number could rise as high as 16 million

15 million Americans provide unpaid care for people with Alzheimer's or other dementias providing an estimated 18.2 billion hours of care at over \$230 billion

 <http://www.alz.org/facts/>

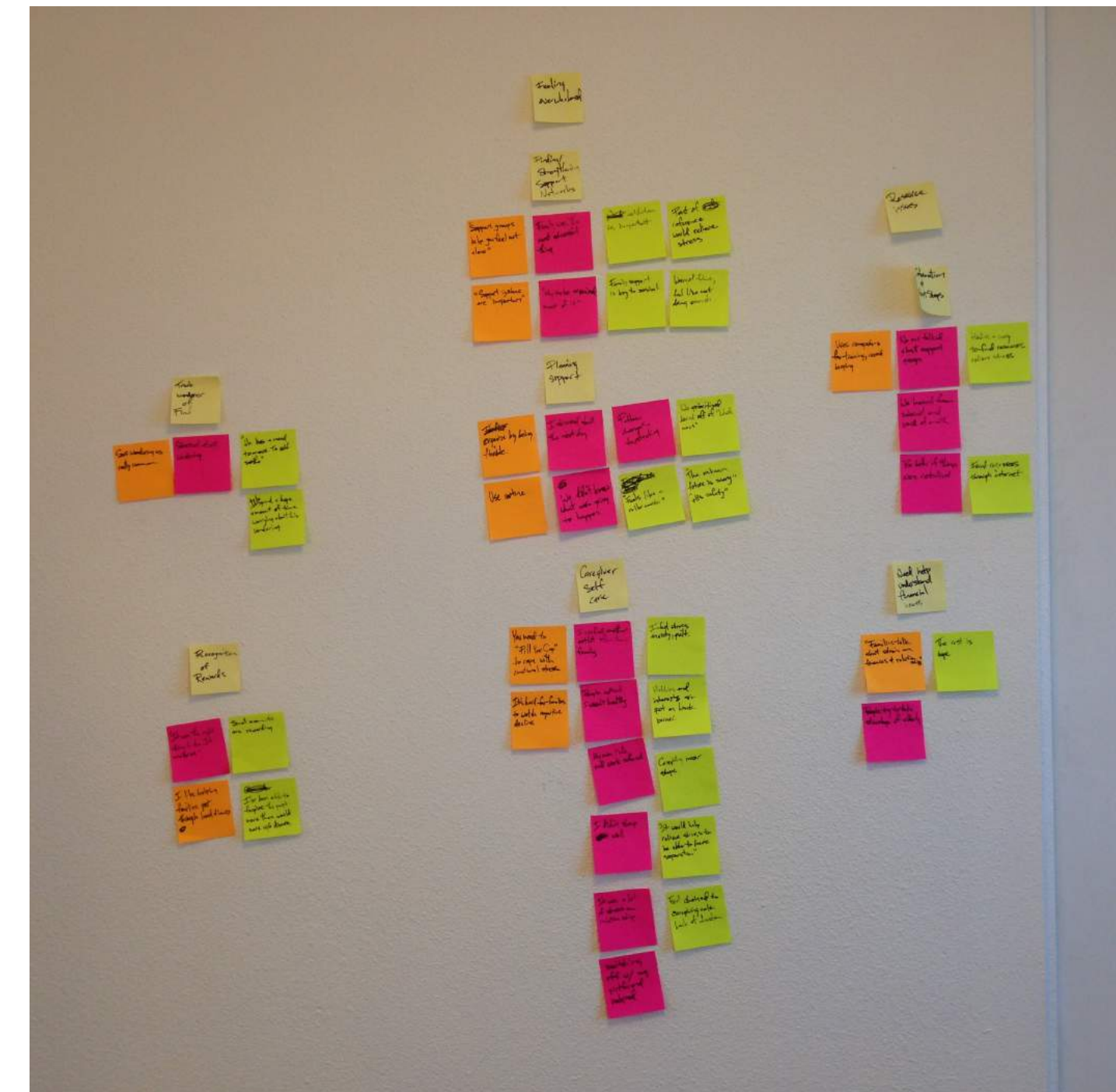
Getting to Know Our Audience

Interviews

First off were initial interviews with family caregivers who are currently caregiving or have previously experience caregiving for a family member with dementia, to gain some initial insights. They were mostly like us, in the 30-40 age range.

Some Questions

- How long have you been caregiving for?
- How do you organize appointments and tasks?
- What is the most frustrating part of being a caregiver for a family member with Alzheimers/Dementia?
- What do you find rewarding about caregiving for your family member?



An affinity map of findings

Getting to Know the Competition

Getting to know the competition is a great way to assess how others are solving the same or similar problems.

My instinct led me to look at question and answer forums as well as the more traditional places we find support for elder care answers. I completed a feature inventory of these tools to compare to what was out there.

Takeaways

The indirect competitors have many helpful social features, but none had a focus on Alzheimer's caregiving. Neither direct competitor initially delivers local resource information or have the key combination of support network and resource finder all in one place.

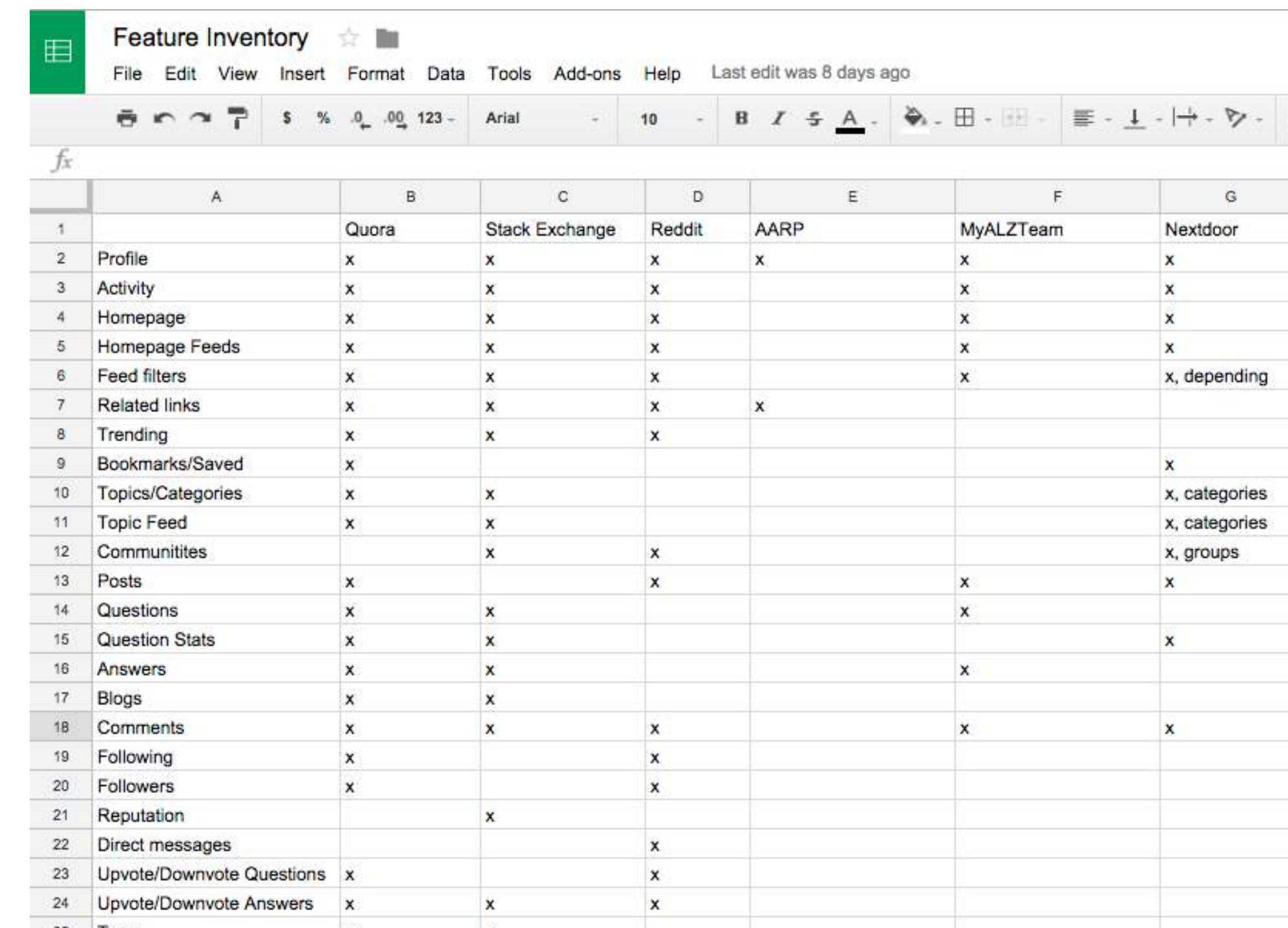
I still wasn't convinced that we needed another social network, but ultimately I felt that the location-based dual approach model of social support with recommendations that Nextdoor has implemented was the closest competitor.

Direct Competitors

AARP, MyALZTeam, Reddit

Indirect Competitors

Quora, Nextdoor, Stack Exchange,



The screenshot shows a spreadsheet titled "Feature Inventory" with a menu bar (File, Edit, View, Insert, Format, Data, Tools, Add-ons, Help) and a status bar (Last edit was 8 days ago). The spreadsheet has columns for features (A) and competitors (B-G). The data is as follows:

	A	B	C	D	E	F	G
1		Quora	Stack Exchange	Reddit	AARP	MyALZTeam	Nextdoor
2	Profile	x	x	x	x	x	x
3	Activity	x	x	x		x	x
4	Homepage	x	x	x		x	x
5	Homepage Feeds	x	x	x		x	x
6	Feed filters	x	x	x		x	x, depending
7	Related links	x	x	x	x		
8	Trending	x	x	x			
9	Bookmarks/Saved	x					x
10	Topics/Categories	x	x				x, categories
11	Topic Feed	x	x				x, categories
12	Communities		x	x			x, groups
13	Posts	x		x		x	x
14	Questions	x	x			x	
15	Question Stats	x	x				x
16	Answers	x	x			x	
17	Blogs	x	x				
18	Comments	x	x	x		x	x
19	Following	x		x			
20	Followers	x		x			
21	Reputation		x				
22	Direct messages			x			
23	Upvote/Downvote Questions	x		x			
24	Upvote/Downvote Answers	x	x	x			

Personas

Personas are a great way to get to know your target users. These are the sandwich users I am designing for.

Persona #1

Justin Foster

Age: 35 years old
Gender: Male
Occupation: Freelancer

“I know caregiving for my grandma is the right thing to do, but I feel overwhelmed and don't feel able to take care of myself.”

Summary

Justin is a freelancer and husband who lives with his wife in Chicago, IL. The two have been caregiving for Justin's grandmother with Alzheimer's Disease as he is the family member with the least commitments.

He's had to figure everything out while his wife finishes grad school. Family helps on the weekends, but they tend to make things harder because he often feels frazzled and overwhelmed nowadays.

Characteristics

- Cares deeply about his grandmother
- Uses websites like Reddit and Facebook to find answers
- Enjoys sharing his experience to help others

Concerns

- There's not a lot of people his age who understand
- His work has suffered, causing financial issues
- Feels exhausted and worries about what's next

Needs

- Needs a centralized place to find helpful information
- Needs to off load some tasks so he can focus on self
- Needs an alternative to family support

Persona #2

Sarah Burns

Age: 38 years old
Gender: Female
Occupation: Researcher

“Caregiving never stops. It feels like a rollercoaster with all the ups and downs. I need more some way to get back some balance in my life.”

Summary

Sarah is a researcher who lives with her husband in Portland, OR. The two have been caregiving for Sarah's father with Alzheimer's Disease who moved in with them from the East Coast after a fall at his home.

With no real family to turn to, she has taken on all of her father's financial, medical and legal needs as his Power of Attorney. Even with the help of her husband, she feels unable to keep up with her own self care. She often feels stress, anxiety and guilt.

Characteristics

- Tech saavy information gatherer and social media user
- Maintains supportive relationships
- Is a hard worker and planner. Uncertainty brings stress

Concerns

- My father wanders and we have to constantly be with him
- We don't have a lot of support networks that understand
- Appointments and bills get missed. We are overstretched

Needs

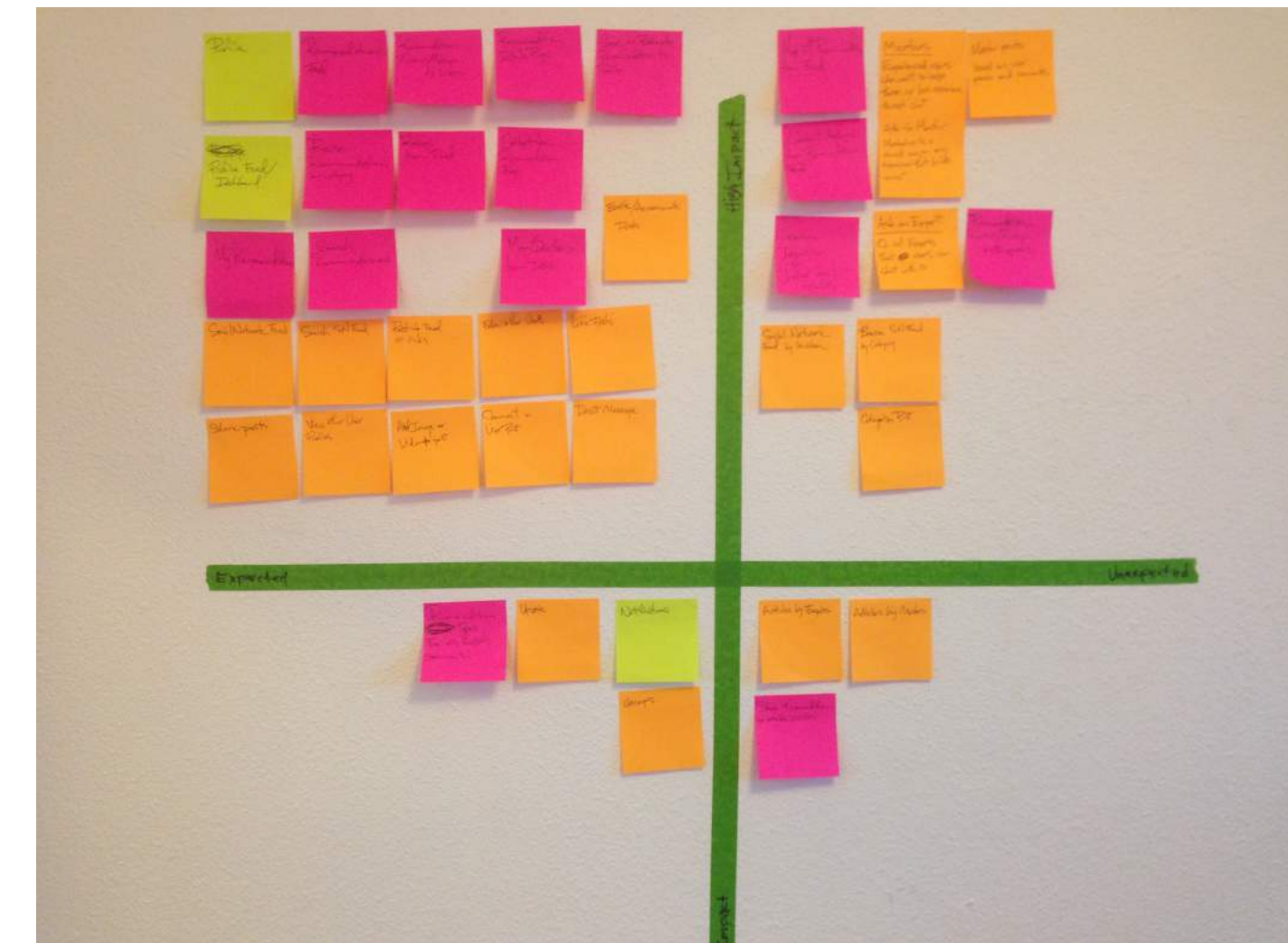
- Needs a central place to track everything
- Needs a support network for understanding and validation
- Needs a way to deal with her father's wandering

What should we make?

As stated above, my research led me to believe that the best approach was a location-based social platform that provides a venue for family caregivers to find supportive connections and recommendations from other caregivers in their own communities. Here's the main feature breakdown.

It's gotta be location-based

Caregiving is a location-based role. Caregivers are generally full of anxiety and don't have enough time. They are on their loved ones' schedule more often than not. Plus they have jobs and families to maintain. Whether or not the family caregiver is long-distance or on the scene, most services and support will be wherever their loved one resides (doctors, social workers, state agencies, etc.). Alternatively, some will need to be where the caregiver resides (tax consultants, support groups, etc.). Some can be either (attorneys), but the fact remains that time is precious so the closer the better.



Feature prioritization grid

What should we make?

Recommendations from local family caregiver resources

One of the needs that users raised was a need to have a “central place.” People have to scour the internet or wait for a word of mouth recommendation. Let’s make it easier for family caregivers to find important resources based on Recommendations from other users. We all have had encounters with understanding staff people at a grocery store or gone through 3 phone trees to find the governmental agency that can help you find a more comfortable bed for your grandfather.

Active Bookmarking to save for later

Keeping everything centralized is most valuable when you can save things for later. That way you can easily refer back when you catch your breath after chasing after your loved one.

Social platform focused on providing supportive answers and understanding to family caregivers questions

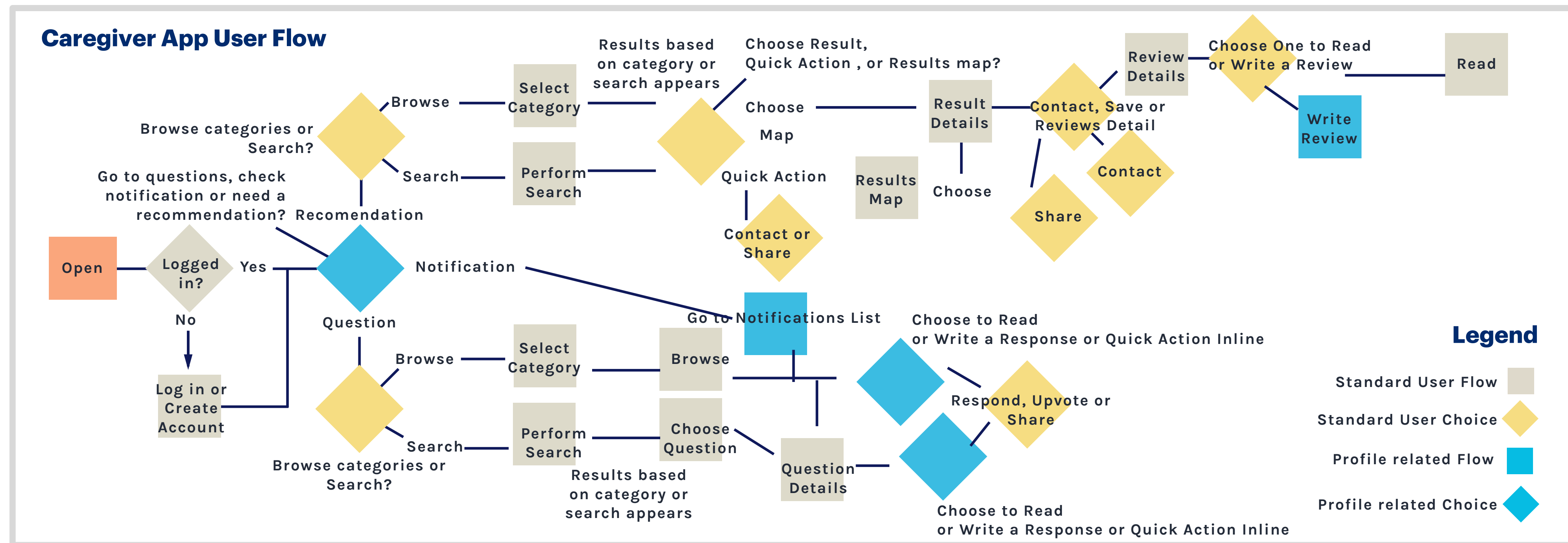
Users will have a Profile presence with info that can let others know their area and platform activities. They may then connect via follows or direct messaging. This allows a person to find others who may be having or have had similar experiences and find the validation so many caregivers lack in their day-to-day.

Categorizable Posts will help focus the intent to a core caregiver: help finding answers to the how-tos and what ifs along with expressing feelings of not doing enough or doing it right.

The User Flow

My initial direction was for more of the Quora model of question and answer for the forum part. I eventually moved away from that as testing showed it to be confusing to users. I moved to the Nextdoor model as previously stated and received positive feedback. The flow remains similar though.

The user flow is based on features that address the primary goals I found through my research. User needs for 1) a centralized hub to 2) find and share information as well as 3) a need for emotional support and validation.

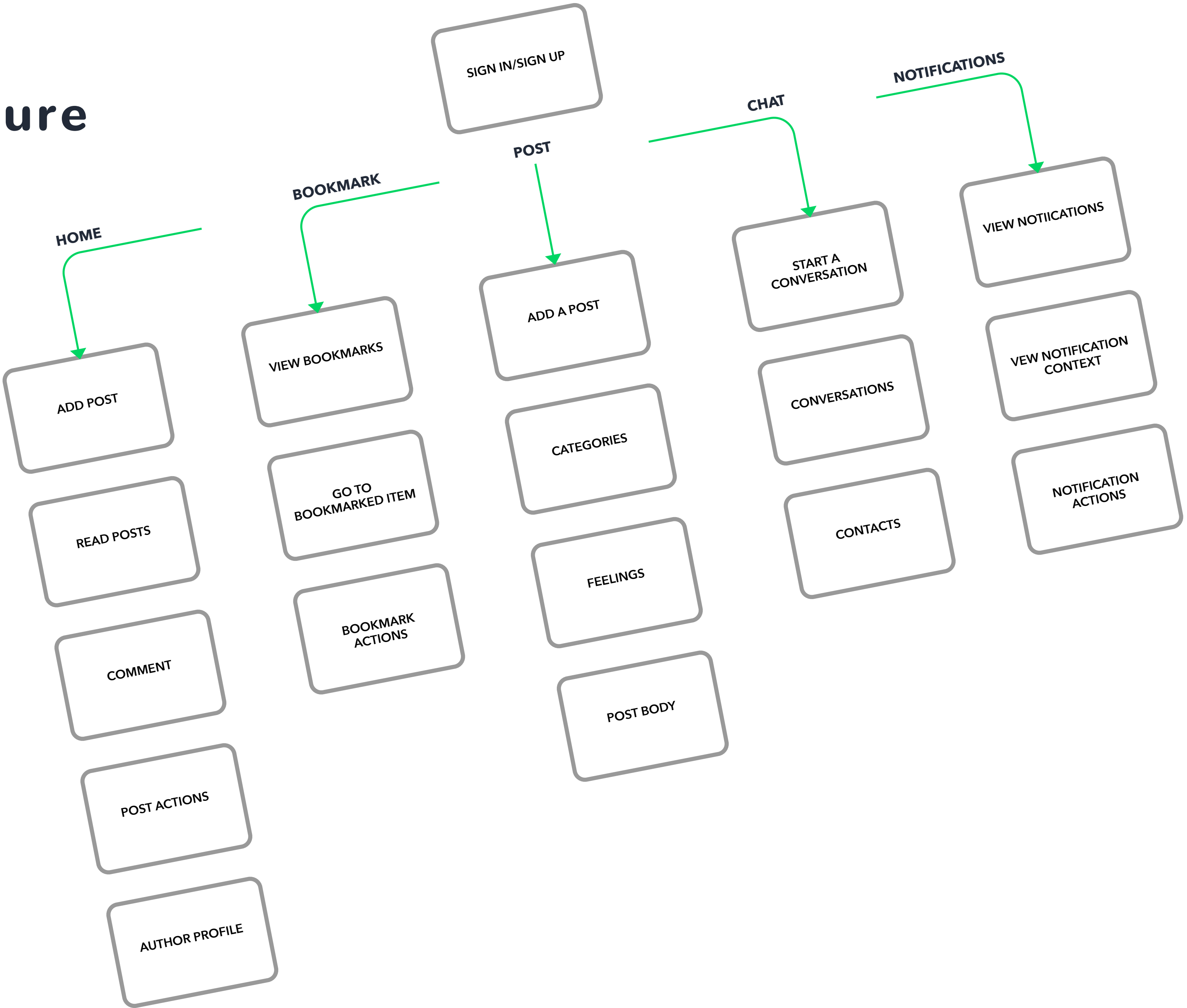


Information Architecture

Card Sorting is a great way to figure out how users think about navigating information. Between card sort tests and prototyping feedback, I finalized a sitemap.

This sitemap prioritizes the social connecting, messaging, and bookmarking features that are the anchors of the experience.

I also represent the navigation represents the tools available to the user to accomplish their goal.



Task Scenarios and Storyboards

Post a tip about great places to take family members that are Alzheimer's appropriate.

Word of mouth is a common form of caregiver information gathering. Sharing of previous experiences can build trust and empathy as well as open up the caregiver to opportunities for new connections.

You need to research for a good attorney in your area who knows the ins and outs of end of life issues. Save the information for later reference.

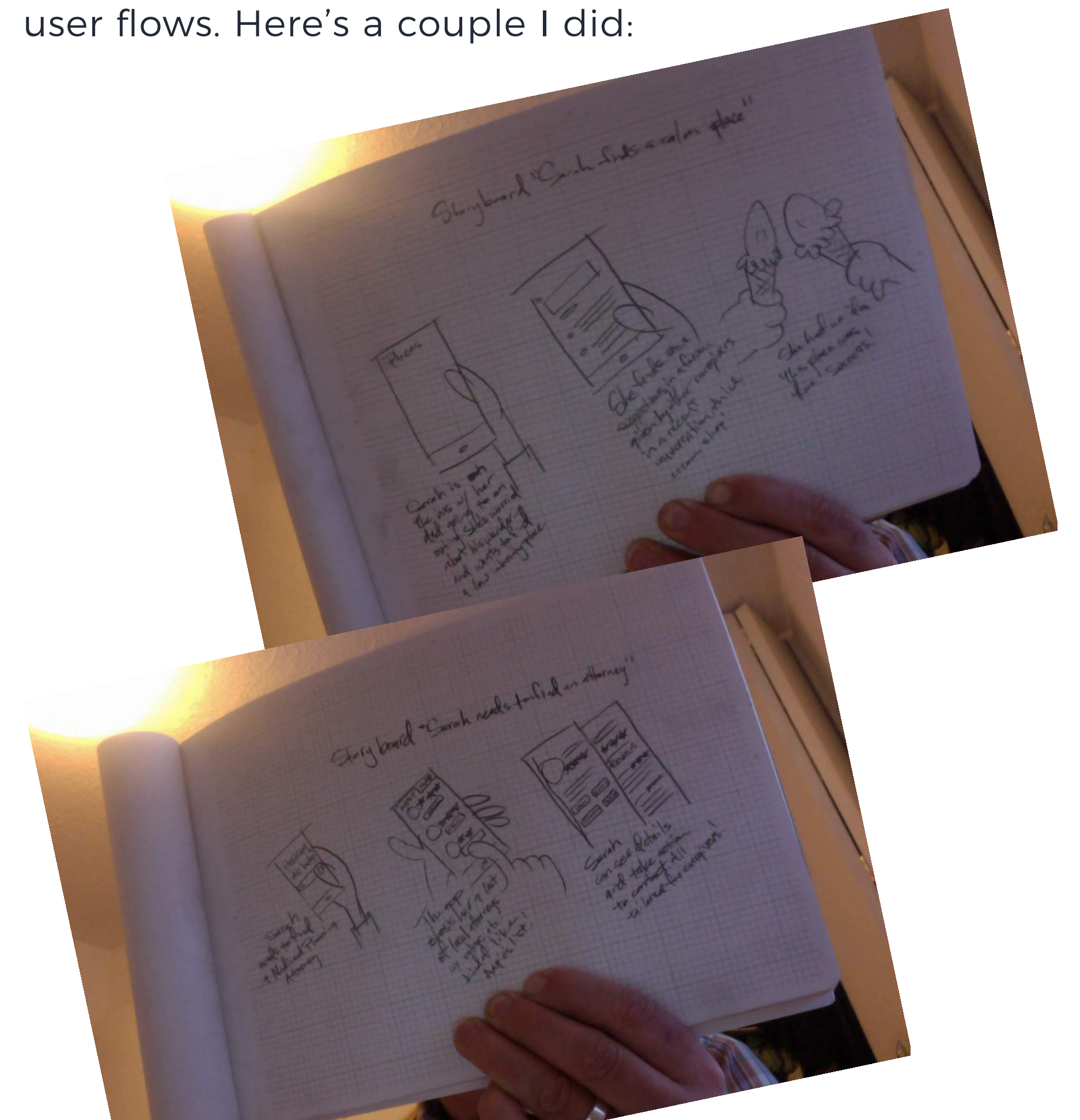
This is the central hub concept in action. Powered by user reviews from the caregiver's own community. Saving the information for later when maybe a caregiver has the time to act on the information.

You are feeling down and need to talk to someone. You've met Isabella on the app and feel like she really understands.

Feelings of isolation and uncertainty can lead to compassion fatigue and depression. Getting a cup of coffee with someone who understands can help relieve stress and give that validation that the caregiver is not alone.

Storyboards

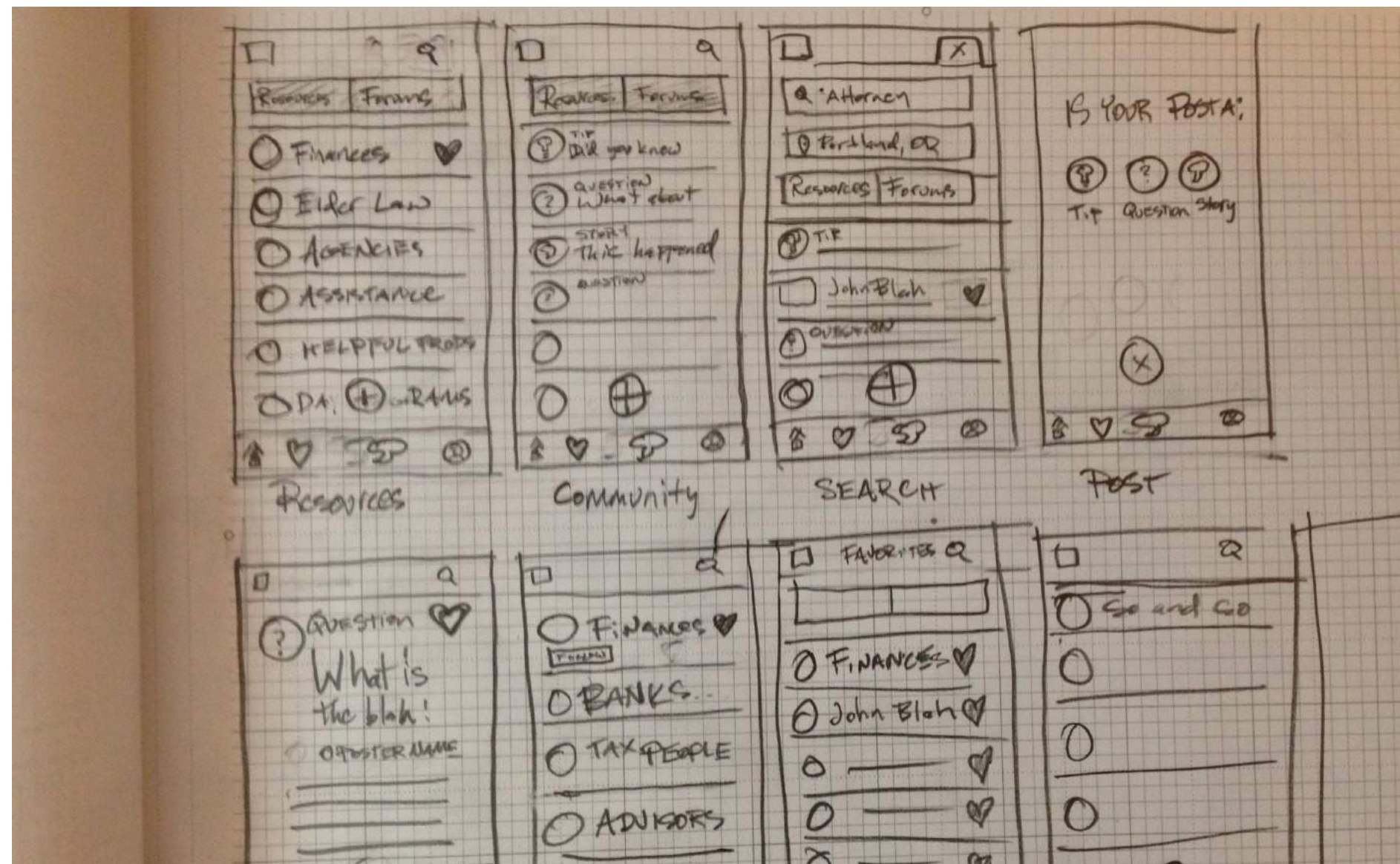
These are visual representations of the user flows. Here's a couple I did:



Wireframes

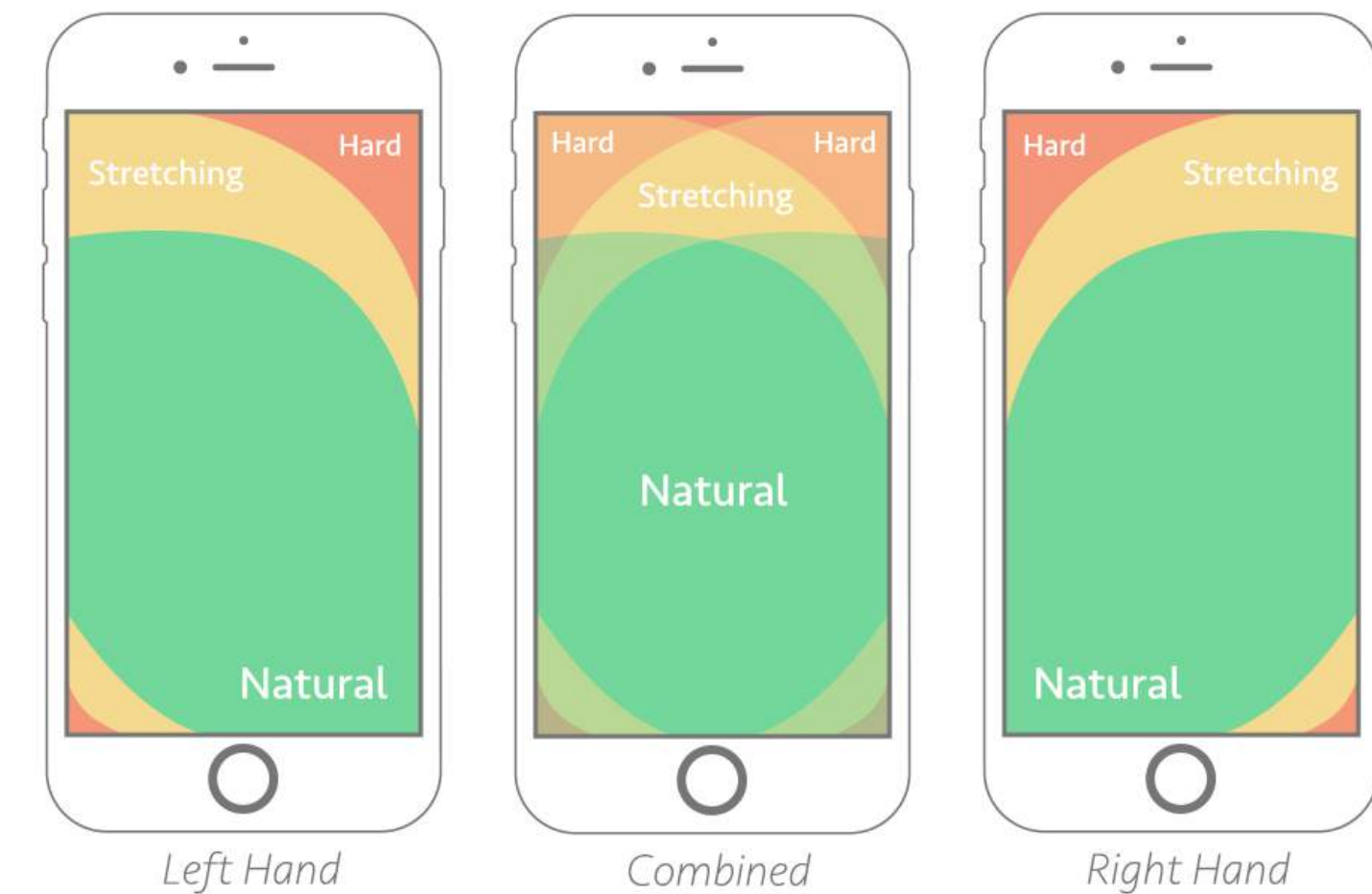
I began with a paper prototype based on a desktop web experience, but shifted to a mobile-first web app approach as qualitative data indicated that users would use it mainly on-the-go since caregivers need quick access while “on shift”.

So I regrouped with sketches based on a right-handed touch pattern, as caregivers generally have their hands full while in “on shift” mode. I took inspiration from an article that talks about a comfortable “thumb-zone” on mobile.



The “thumb zone”

Thumb-zone mapping for left- and right-handed users. The “combined” zone shows the best possible placement areas for most users.

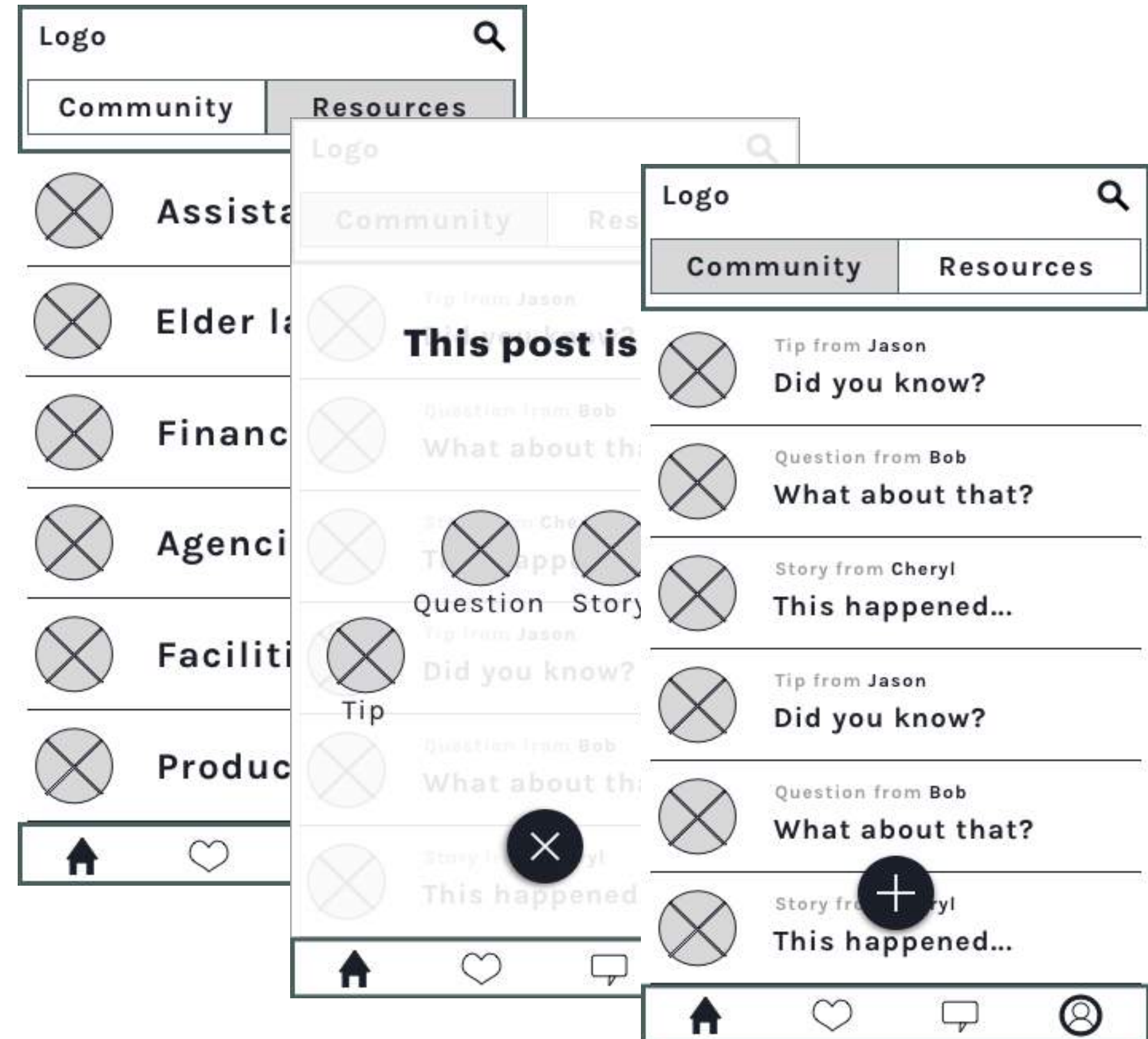


<https://www.smashingmagazine.com/2016/09/the-thumb-zone-designing-for-mobile-users/>

Wireframes

Using one free hand, a user can:

- Browse through community posts or find recommendations
- Chat with a friend
- Interact with posts
- Post or recommend something



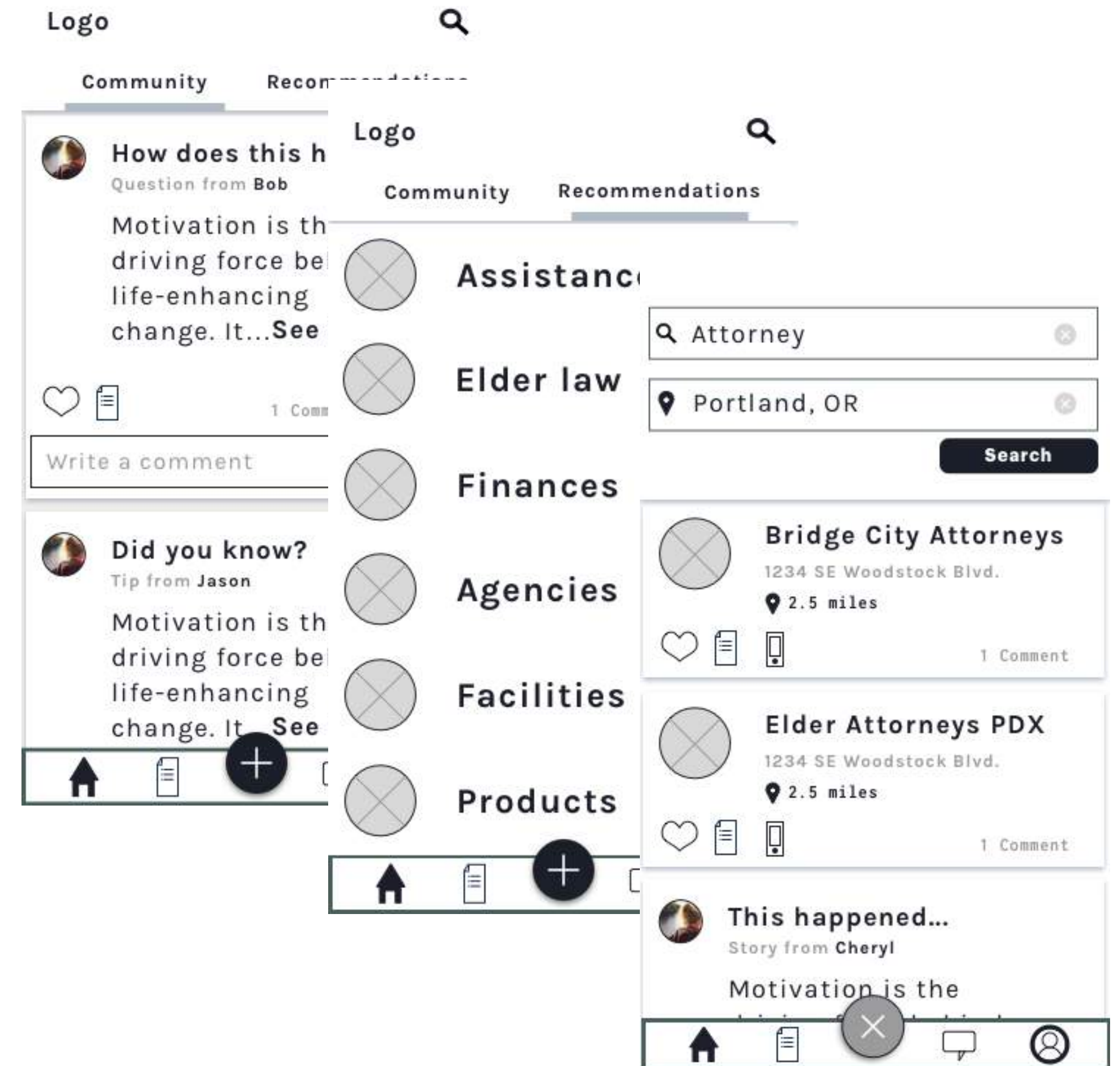
Prototyping and Usability Testing

I built the prototype from the wireframes as I initially did not want to introduce visual design elements that might distract.

I realized the initial wireframes drew a bit too much from the forum approach and so I refreshed them for the prototype. I drew from patterns used commonly in most “feed” type social platforms.

My tests revealed four main pain points:

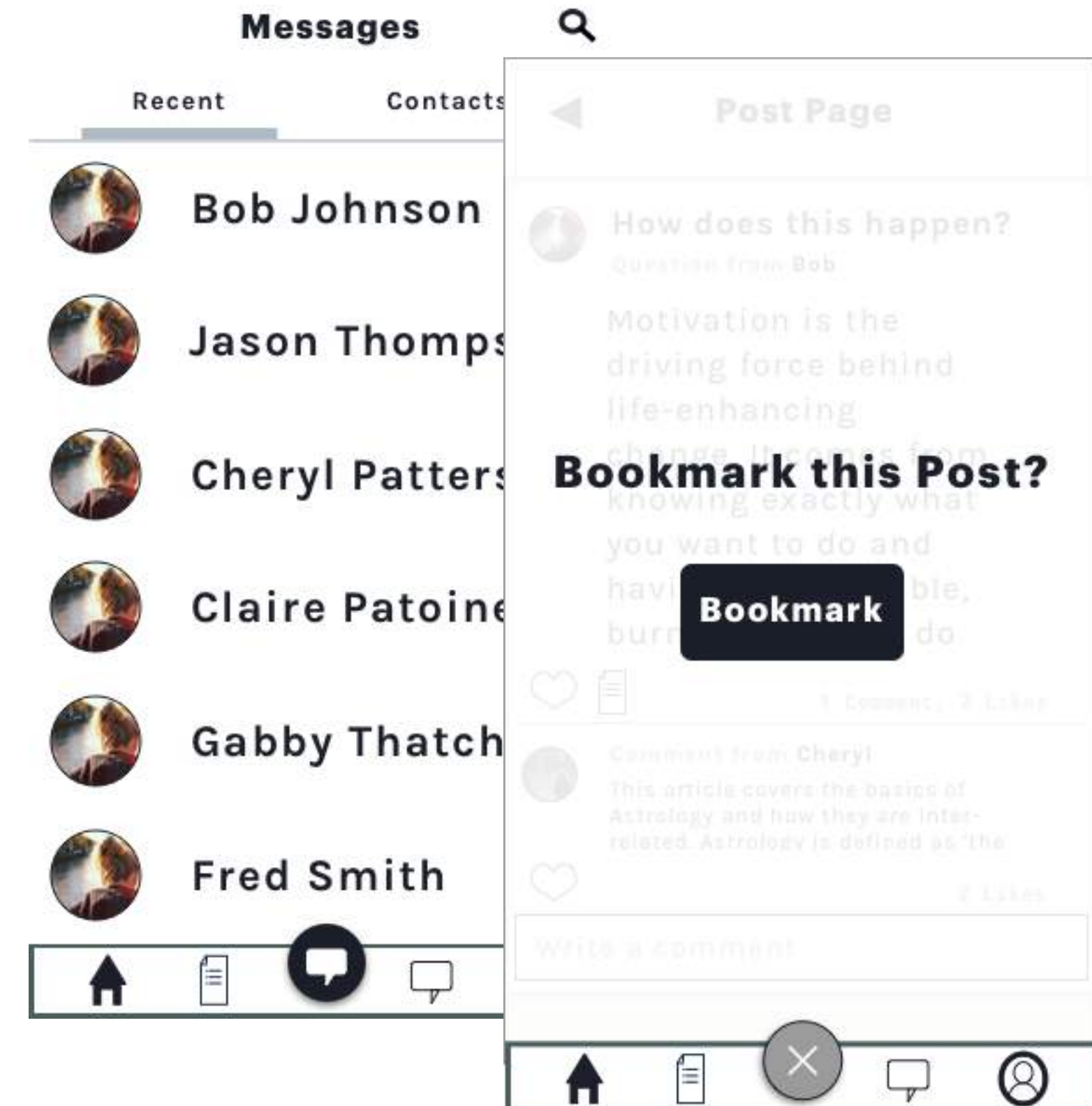
1. The Post button, though in the comfort zone, was uniformly misunderstood or looked over as a method to begin a post.
2. The distinction between Bookmarks and Likes were weak.
3. The "wireframe-ness" was actually distracting for all users
4. The search was confusing



Prototyping and Usability Testing

There were some wins too:

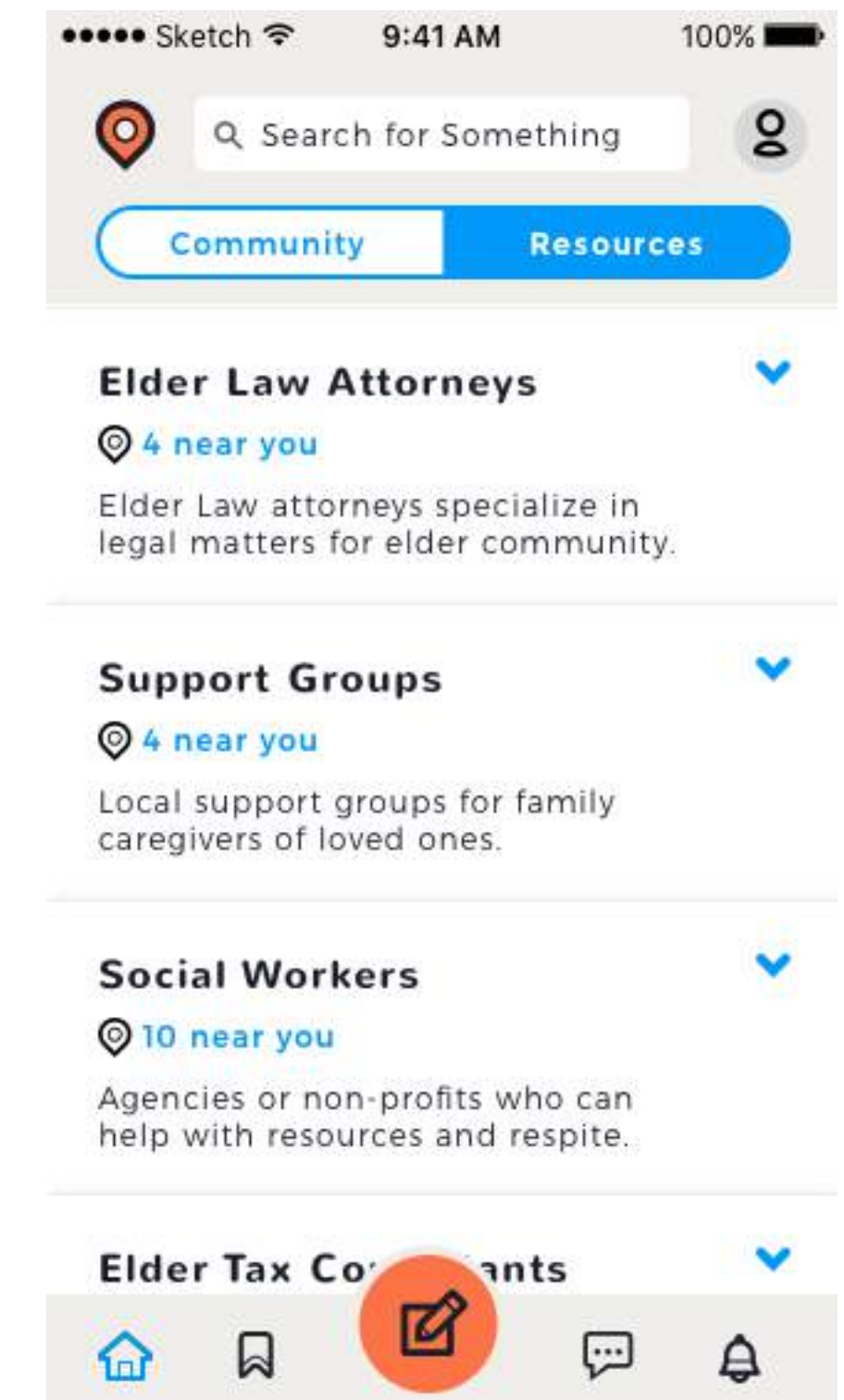
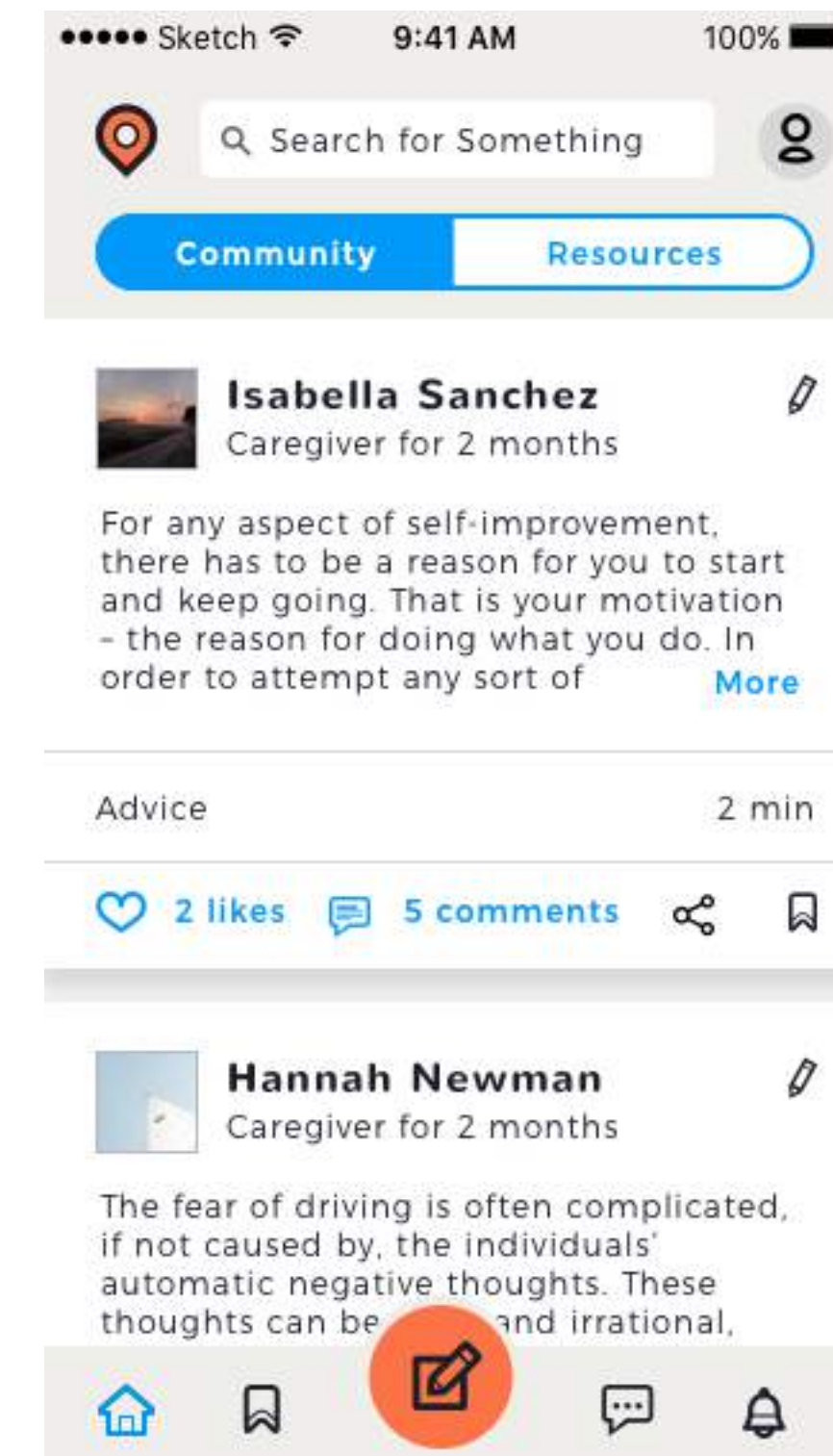
1. All participants thought the Chat feature was very straight forward and simple
2. All participants validated Bookmarks as an important feature.
3. The Post Categories received positive feedback as a good way to be able to wade through the type of post you might/might not want to read.



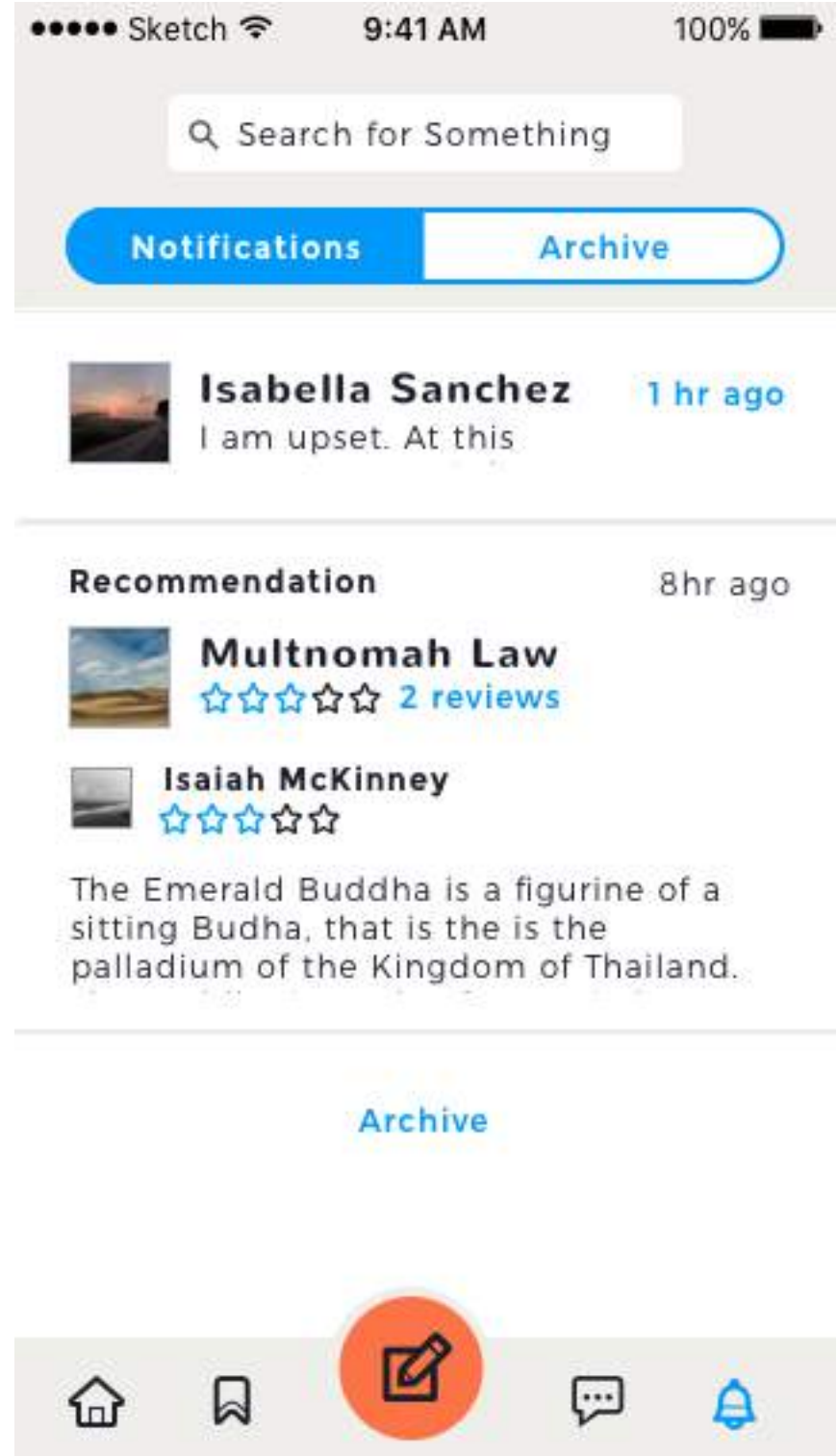
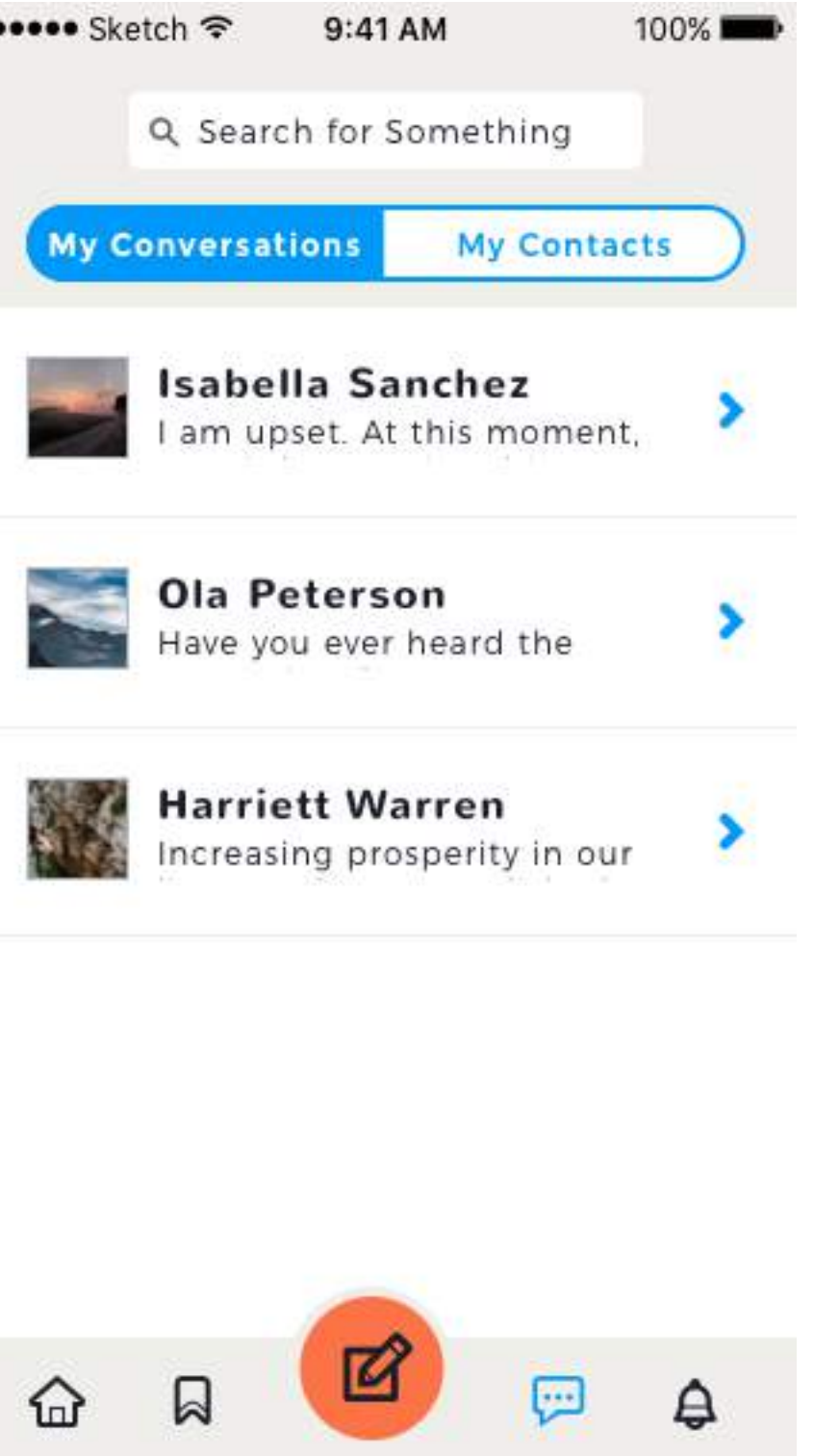
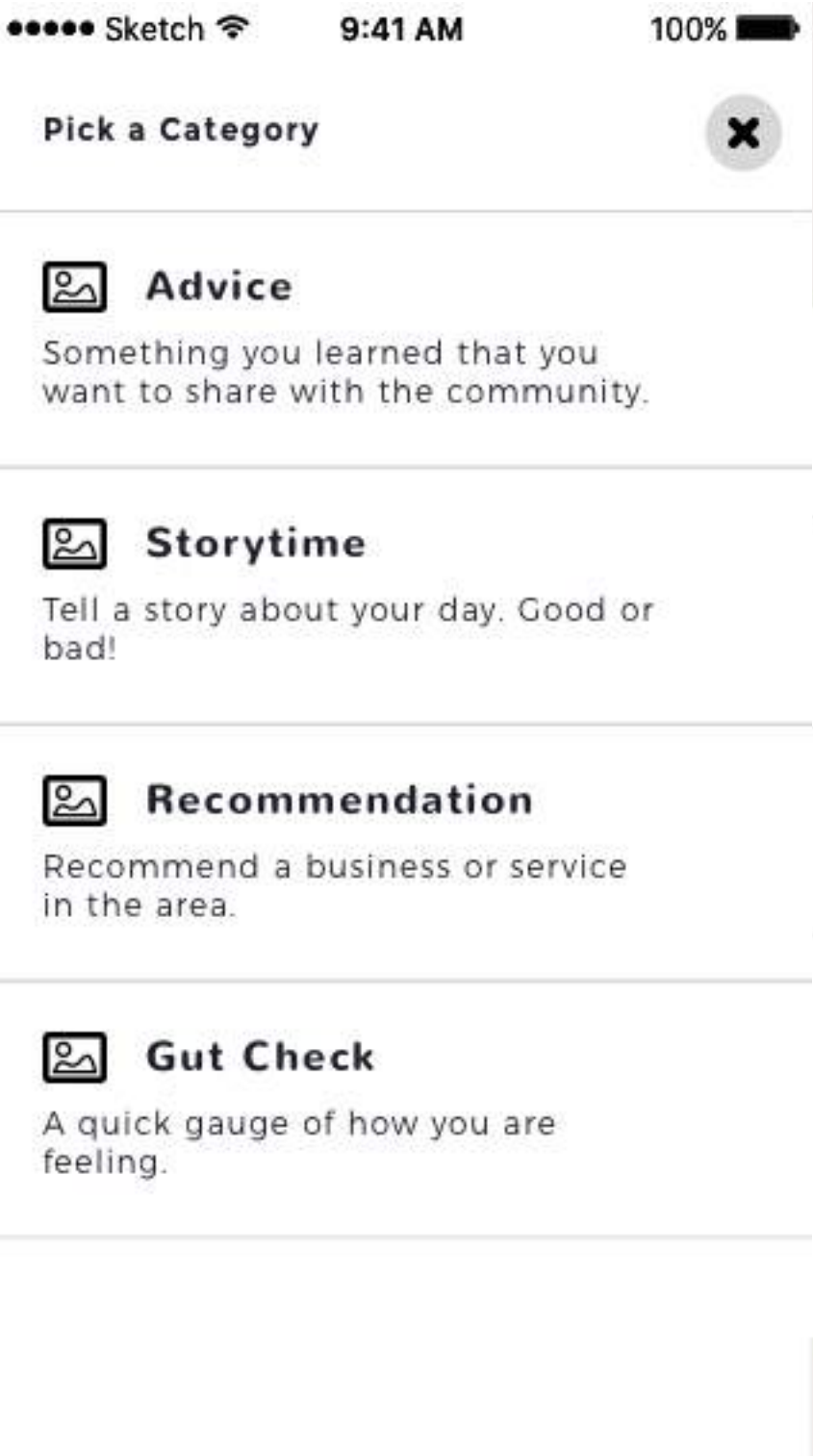
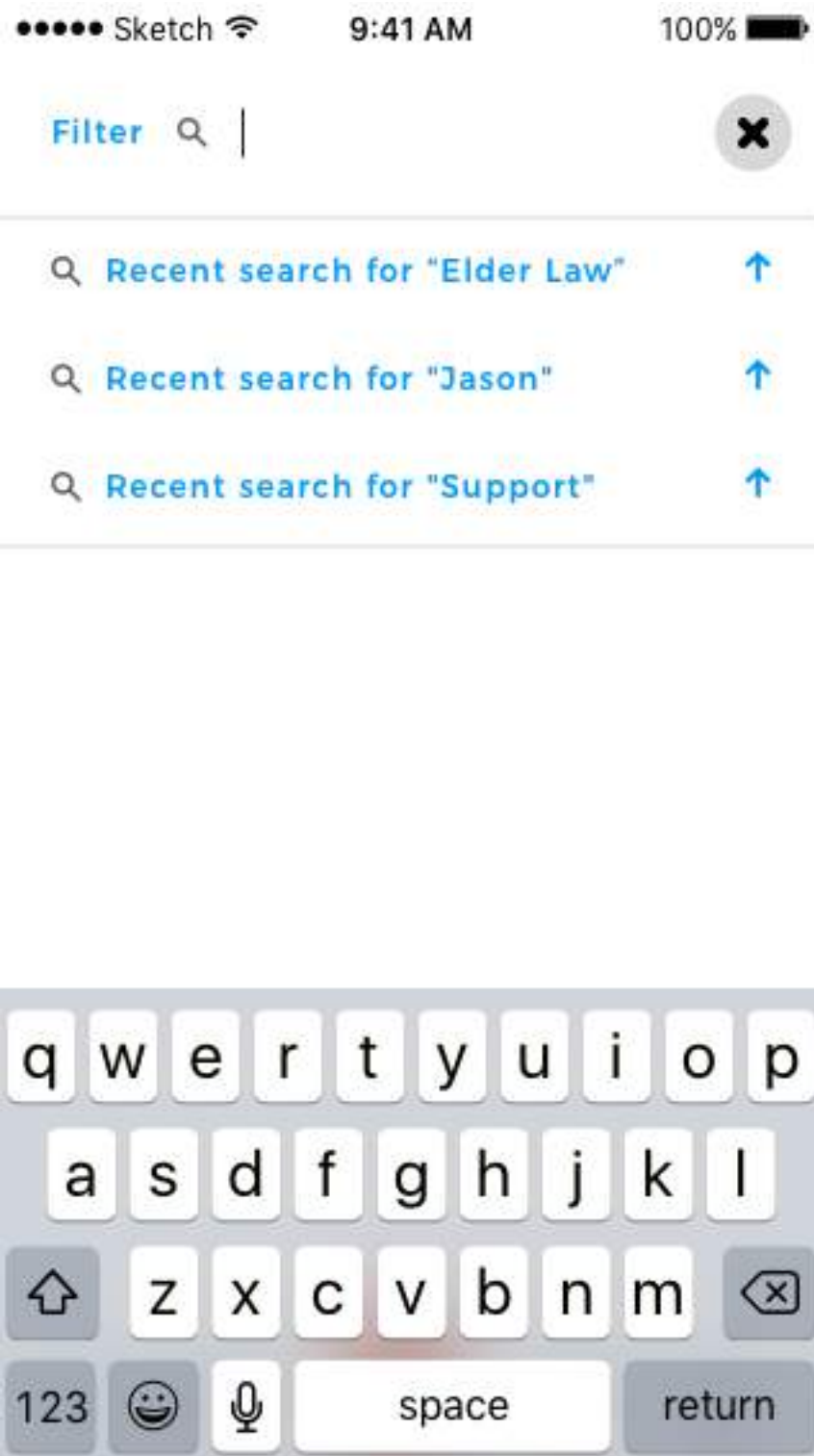
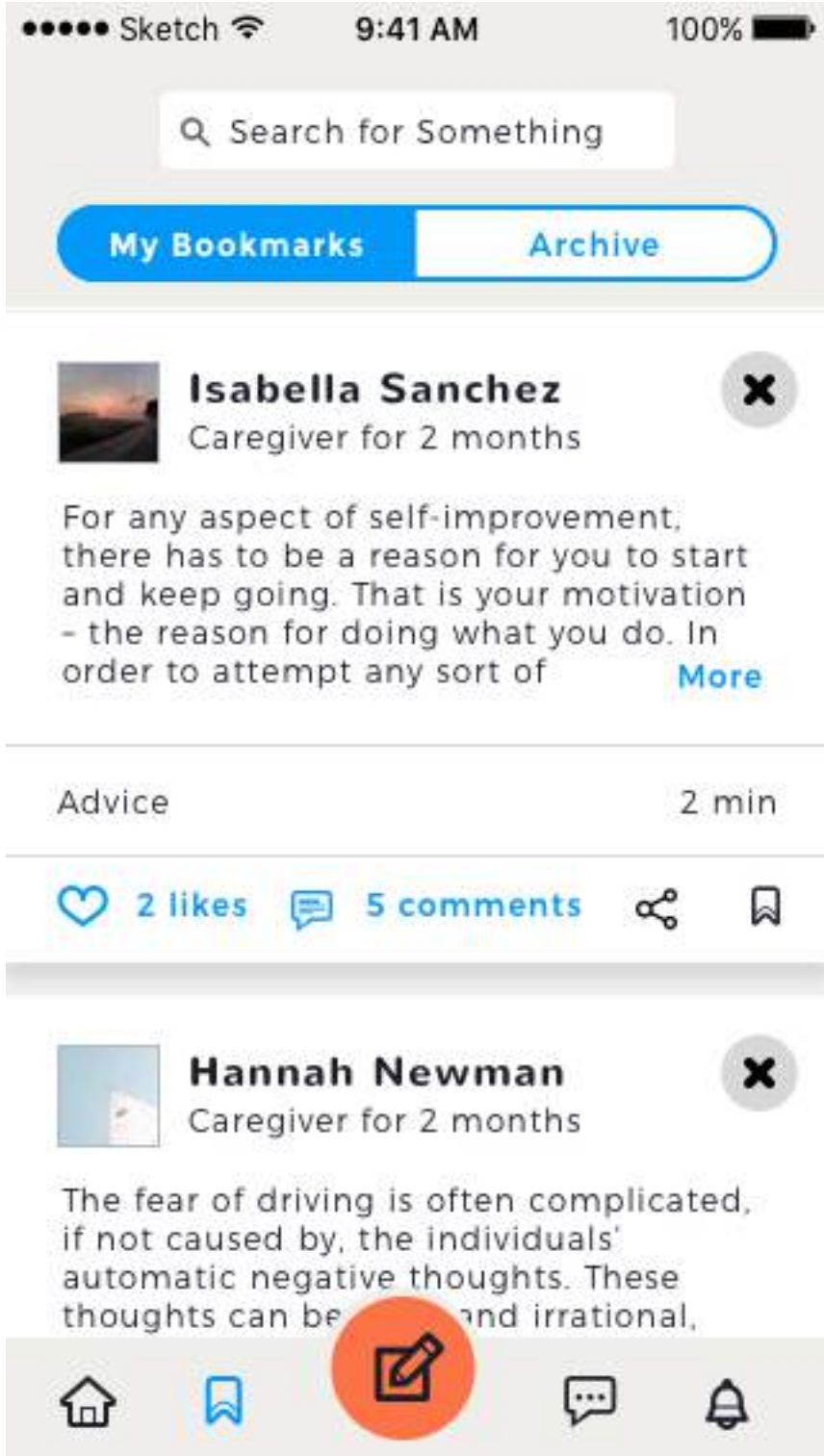
Prototyping and Usability Testing

I followed up by addressing some of the concerns in a new prototype with a basic visual design and changes to the:

1. Updated the visual design to a neutral color palette with more attention to the typography and callouts. I added randomized content managed through Invision Craft plugin for Sketch.
2. Simplified the UI to consist of four main screens with more complex actions managed through overlays.
3. Post button
 - Changed the "plus icon" to a "compose icon"
 - Moved to button out of reading range of the content, into the bottom navigation.
4. Added text to the Like and Comment buttons to give them context
5. Added context and better flow to make the Search easier
6. Give Recommendation and Post Categories some context.
7. As the Profile navigation was ignored in initial testing, I moved Notifications in its place to increase user engagement.



Prototyping and Usability Testing



Where from here?

In the future, after another round of testing, I would love to look into implementing development of this app and get it into the hands of those who need it.

Future features

Some options to tackle in the future would be:

1. Filtering options for content
2. System level notifications
3. More Categories based on user feedback
4. Integrating AI that begins to anticipate where caregiver needs will be, creates a care plan and connects to services for the user.
5. Expand this out to caregivers of loved ones with other conditions.

Thank You!

For more information please contact me
- jasangiglio@gmail.com
- jasangiglio.com

The Prototype

 [https://projects.invisionapp.com/
share/9HD3ZBXJM#/screens](https://projects.invisionapp.com/share/9HD3ZBXJM#/screens)