### **Process**

Research

**Concept Development** 

Prototypes

Evaluation

**Final Product** 



### Our Team

We are four ambitious and dedicated User Experience Design students improving their skills at SCAD. For 10 weeks we worked on our Studio 1 project in and out of class. The following is a summary a of our design process.





Eika J Weber

Project Lead UX Design Junior



**Matthew Moore** 

UX Lead UX Design Junior



**Tom Yao** 

Project Manager UX Design Junior



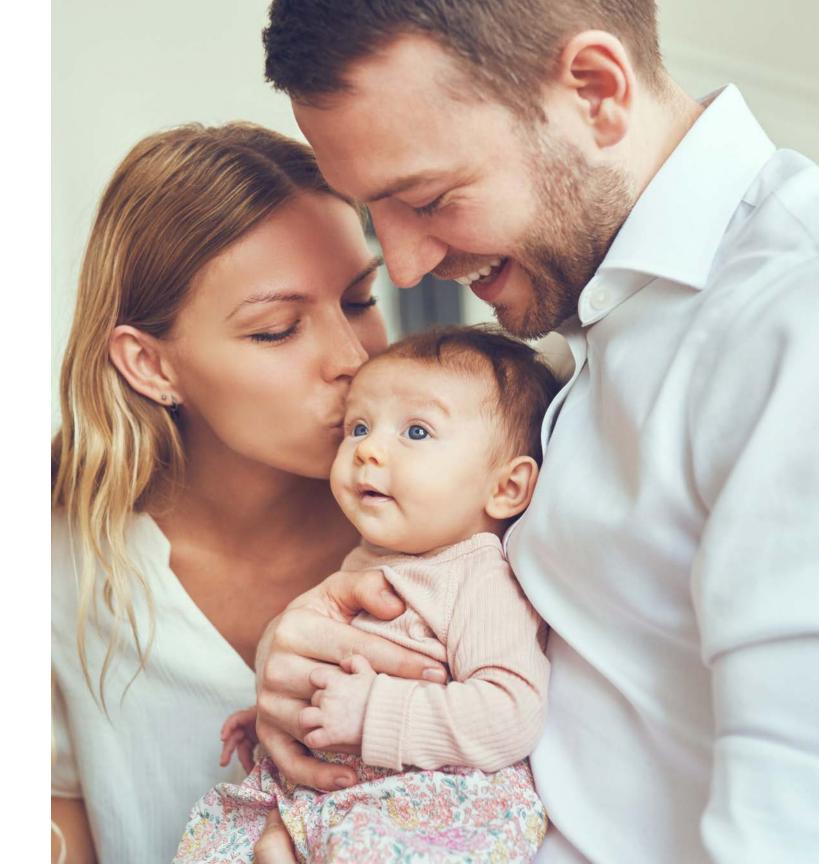
Stephanie Satterlee

Product Developer UX Design Senior

# **Preliminary Target User**

Our preliminary user group was Parents with 6-month-old to 2 years old babies.

In this age the babies are in a stage of rapid development of their physical abilities. They are becoming mobile and are developing speech. Awareness of people and their surroundings increases. They come into the age of separation anxiety and they begin to walk. With that they start to show independence and their personality starts to develop.



A big part of our Studio One project is a focus on emotions. We had to think of different ways we might target the emotional side of taking care of a baby. In order to understand the emotions involved in taking care of a little one we conducted intensive secondary research as well as interviews, questionnaire observation.

# e·mo·tion /əˈmōSH(ə)n/

noun

1. Instinctive or intuitive feeling as distinguished from reasoning or knowledge.

1.1 A strong feeling deriving from one's circumstances, mood, or relationships with others.



## Joy

Through our research we found different areas of joy that parents experience with their babies. The following is a list of the most dominate once.

Babies distinctive good smell, their skin and their giggling. Further, babies always grab everyone's attention. They are a point of conversation and increase the human interaction. Parents especially enjoyed teaching the baby the whole spectrum of emotions, languages and new skills. They enjoyed seeing them grow and learn. A common response was that every moment of brand new development brings a lot of excitement.

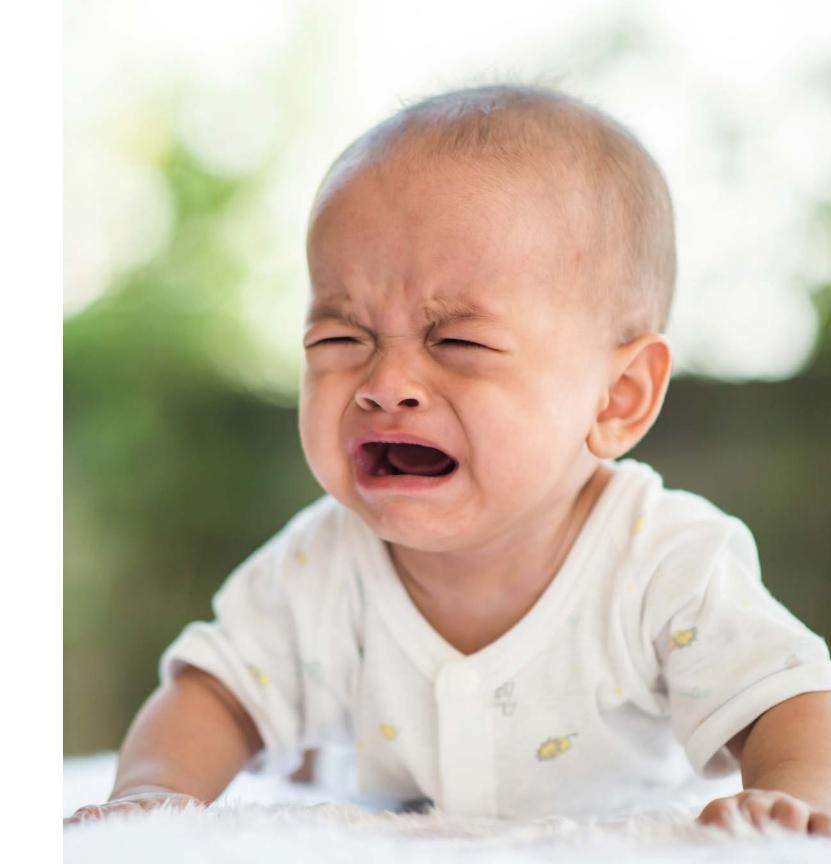


### **Frustration**

These are some of the common frustrations we found in our research with raising a baby.

There is a discouraging social understanding about having a baby. Traveling is often seen as very frustrating and when going by car parents have to stop often to comfort the kids. Caregivers often complain about the baby being cranky, having to take a lot of things with them and having to make sure everything is baby-proof. Further the loss of sleep, babies playing with food and escaping the crib and the act of changing the diapers are typical low points.

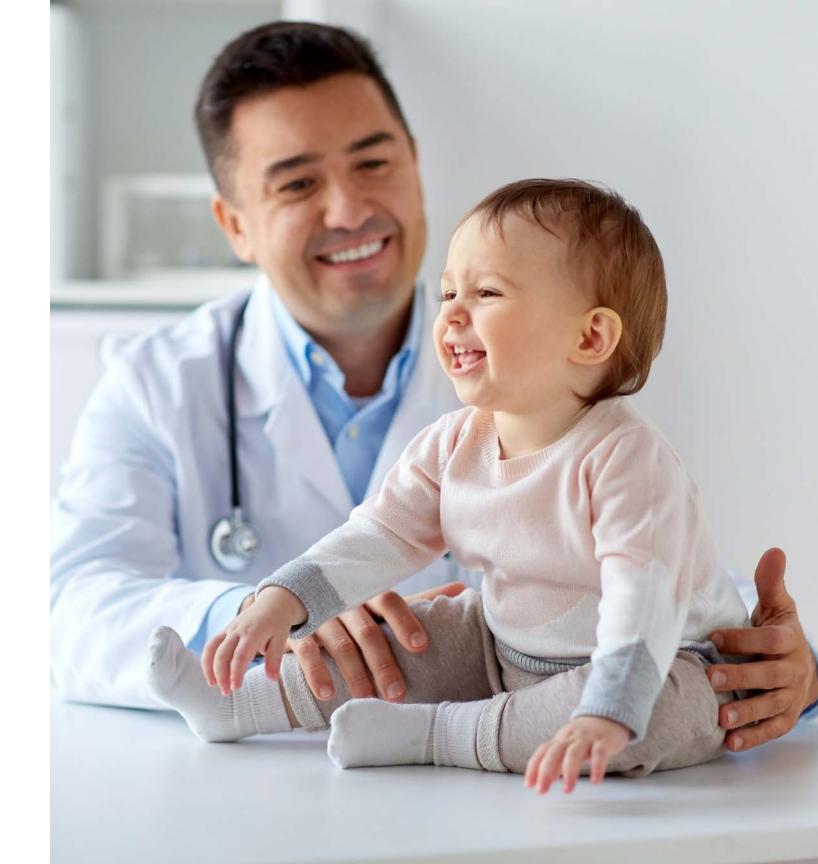
Other frustrations are commonly associated with not having enough alone time or time to meet with friends and do activities. Many parents also were frustrated about seeing their baby grow up too fast and worried about not remember everything. They often wished they recorded more moments.



# Worry

The general main topic for worry was the health and well being of the baby.

A lot of parents describe a constant anxiety and fear that something could happen to their baby. They worry about Suffocating, SIDS, Whooping Cough, General injuries, drowning, poisoning, sleeping with the baby in the same bed and distracted driving.



### Calm

We found that the calmness was a common emotion associated with babies especially in women.

Infants experience an automatic calming reaction when they are being carried and parents' oxytocin release when I am holding them, smell them, or having eye contact with them. A study found young babies carried by a walking mother were the most relaxed and soothed, compared with infants whose mothers sat in a chair and held them.

Babies have the innate ability to process music in a sophisticated manner which is why singing to babies is a universal way to calm babies down. A lot of parents even play music to babies in the womb so when they're born they can have a recognizable song to comfort them.



Based on our first research set we wanted to know even more about what to focus on and what kind of opportunity areas we might have. We did more secondary as well as primary research and based our questionnaires and interview questions on our preliminary research. We focused on different types of learning especially secondary languages.

### **Research Methods**

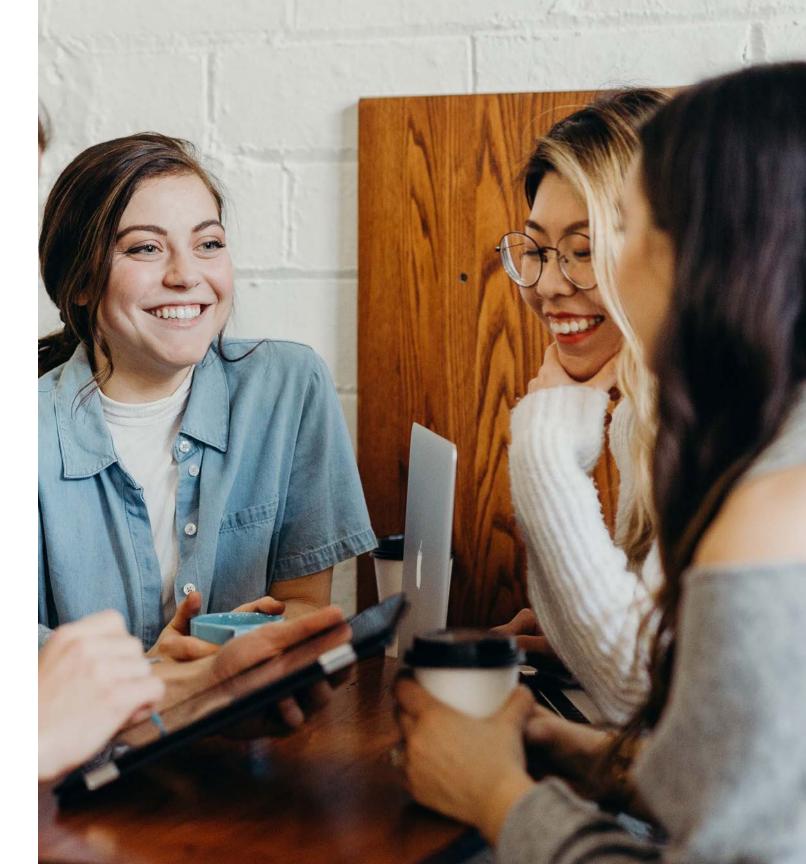
- 1. Competitive analysis
- 2. Interviews
- 3. Questionnaire (39 responses)
- 4. Observation
- 5. Shadowing
- 6. Affinitization



# **Interviews**

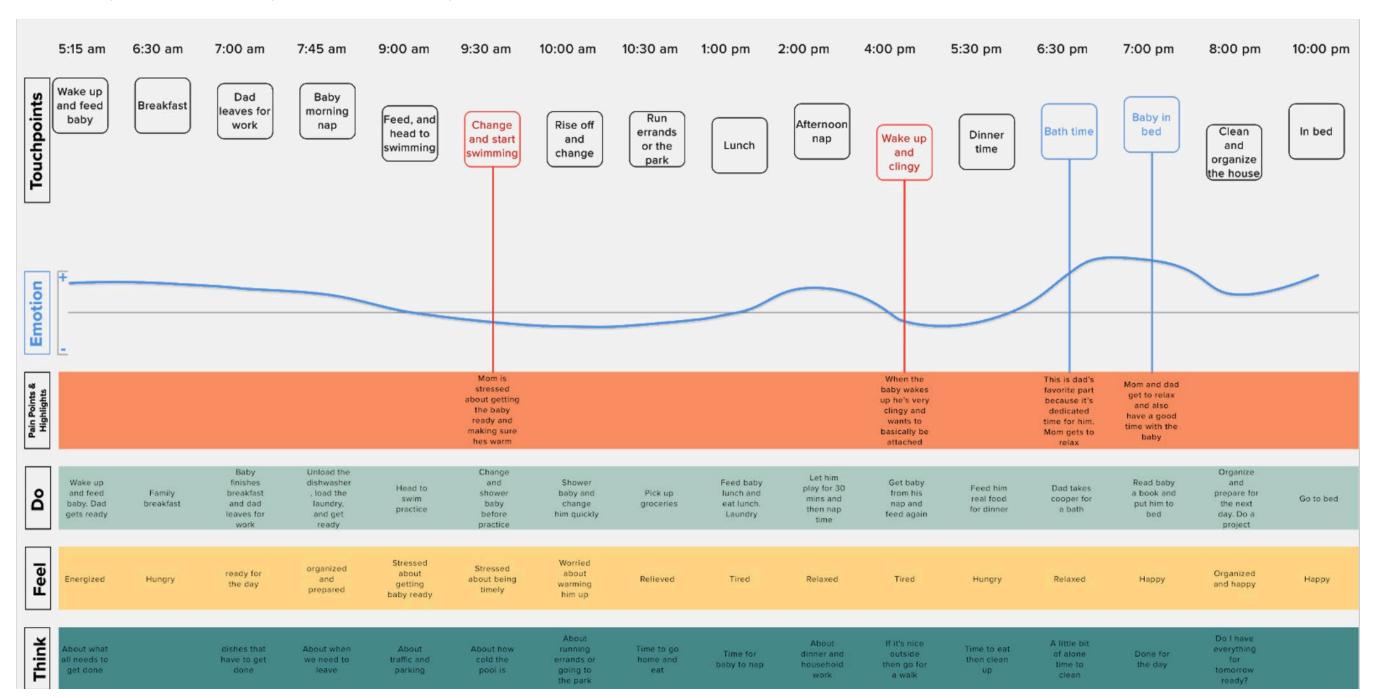
- 1. Erika Lindholm (6 kids, 1 infant),
- 2. Jason, Tom's neff
- 3. Steph's sister (3 Kids)
- 4. Emily (8 month old)
- 5. Ella (7 month)
- 6. Friends Sister (2 years old)

- 7. Alex (8 month old)
  8. Matt's brother A (1 infant),
  9. Matt's brother B (1 toddler)



### Daily User Journey Map

After our brief survey we wanted to get a in depth look into the everyday lives of parents. The first family we talked was a family with a 13 month old baby.



### Observation

For the next family we had the opportunity to observe their night routine in person. We obeserved how the parents balanced work, family and alone time. It was here we saw how powerful storytime is.

Night Routine				
6pm	6:30-7:30pm	8 pm	9-12 pm	12-1 am
Cooking Dinner	Dinner	Baby Bedtime	Parent Unwind	Parent Night
No Time  Hands Free – Pre prepped food is the best option	Only Time to Talk  Favorite Time to  Catch up and review the day	Bathtime – Lots of toys  Relatively quick – baby crib is next to parents.	Watch TV and have a glass of wine.  Catch up on emails	Stay up late because it's the only time to not have anxiety surrounding watching baby.

### **Competitor Analysis**



Fisher-Price Dance & Groove Rockit

\$30.40

Learning content changes as your baby grows with Smart Stages 100+ songs, sounds, and phrases teach the alphabet, numbers, shapes, colors, Spanish, and more.



Smart Bear Fisher Price

\$59.90

An interactive learning friend with all the brains of a computer, without the screen. The more your child plays with Smart Toy, the more this remarkable furry friend adapts to create personalized adventures the two of them will love! Sounds like the start of a true friendship— one that will help your child grow socially and emotionally, too.



CogniToys Dino - Kids Cognitive Electronic Learning Toy

\$46.40

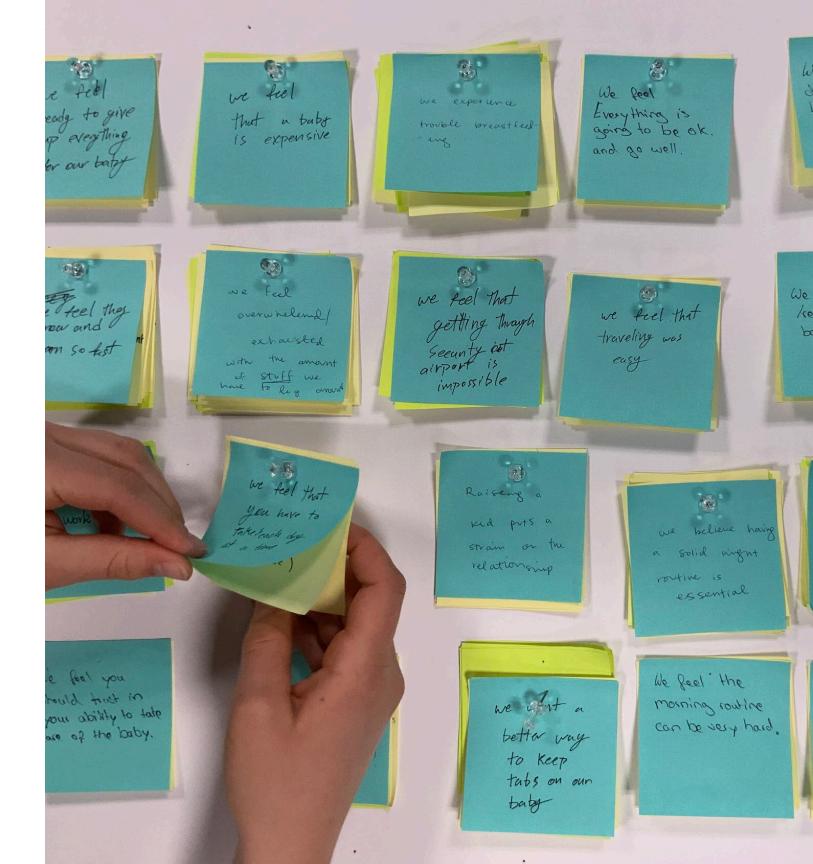
Wi-Fi enabled, cloud based educational smart toy. Uses speech recognition, remembers information a child shares to help enrich learning and future conversations that is age appropriate Educational topics include spelling, vocabulary, math. Dino's belly button for fun, laughs, learning and friendship!



### **Affinitization**

Through our questionnaire and interviews we were able to generate a sizable amount of raw data that we proceeded to digest through the process of affinitization

Our raw data consumed about 217 yellow sticky notes. By the end of the process we were down to only 13 key areas of opportunity.



### **Opportunity Areas**

Through the insights from the questionnaire and interviews we were able to determine opportunity areas. The bold ones were the once we decided to focus while developing a concept.

- 1. Happiness through interaction
- 2. Babies are unpredictable
- 3. Importance of support
- 4. Time is always short
- 5. The parental bond is powerful
- 6. Carefree alone time
- 7. Unique parenting styles
- 8. Traveling is frustrating
- 9. Cherishing moments
- 10. Stress comes with having a baby
- 11. Development through language
- 12. Sleeping problems
- 13. Nurse and feeding is frustrating
- 14. Pride through child development



### Sara Persona

Sara is 34 years old. She is married to Mateo who is 32 and together with him they have a 6 month old son Daniel. They live in Dallas, Texas.

Sara comes from the US and only speaks English. Her husband Mateo however speaks English and Spanish fluently. Sara wants her son Daniel to learn both English and Spanish.

Sara wants to learn Spanish so that she will understand when her husband and her son are speaking and she is worried that just the dad speaking Spanish with Daniel will not be enough to teach it to Daniel fully.



### Sara Persona

#### Questions

- 1. How can I learn a language so I can cherish even more moments with my partner and child?
- 2. How can I get further support from others in taking care of Daniel?
- 3. How can I make travel easier and occupy my child while traveling?

#### Goals

- 1. Learn Spanish
- 2. Raise Daniel bilingual
- 3. I want to cherish and remember all the moments I have with Daniel and Mateo.

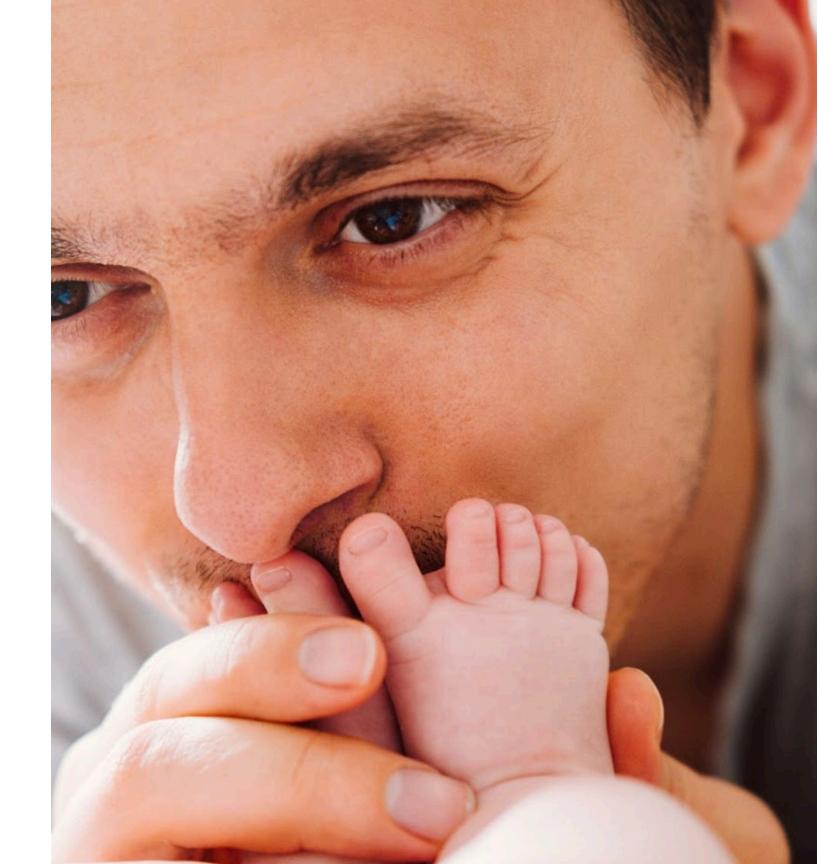


### **Victor Persona**

Victor dating and living together with Alexandra in Miami, Florida and together they have two identical twins Phil and Luc who are 8 month old.

Victor and Alexandra own a dentist practice and right now he is in maternity leave. Once their sons turn 14 month he wants to go back to work again while Phil and Luc are in a daycare.

Both Victor and his partner Alexandra only speak English, but they would love their sons to grow up with a additional language.



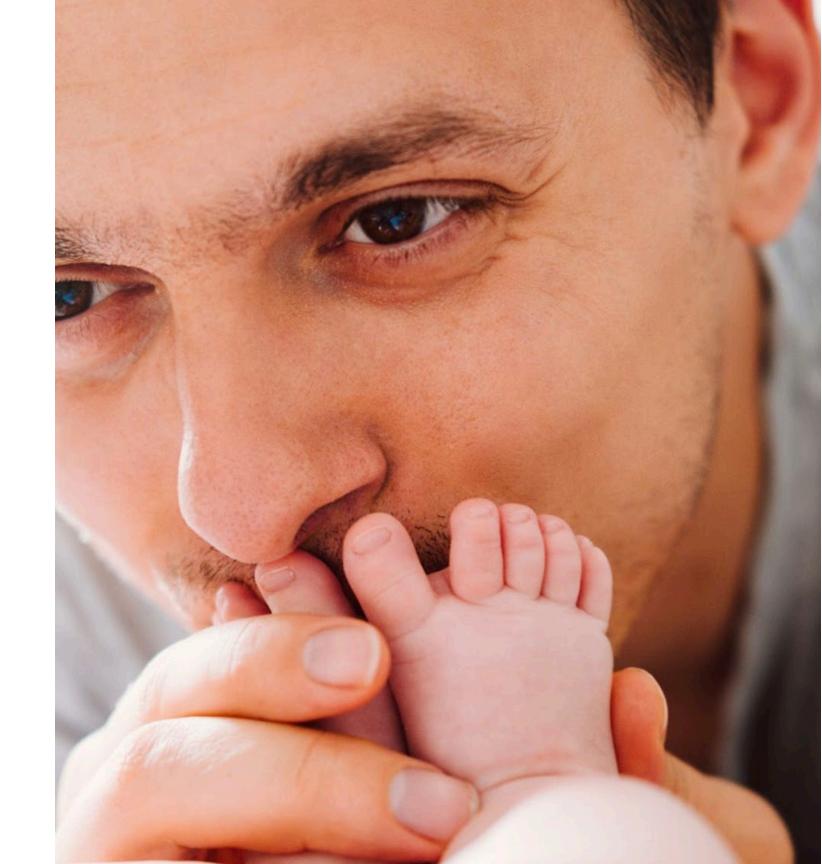
### **Victor Persona**

#### Questions

- 1. How can I teach my sons another language even though me and Alexandra both only speak English?
- 2. How can I interact even more with my sons and cherish those moments?
- 3. How can I lessen sleeping problems?

#### Goals

- 1. I want to teach Phil and Luc an additional language.
- 2. I want to be there for my sons and give them all opportunities.
- 3. I want to feel good and get more rest.



## Lily Persona

Lily is a single mother who lives together with her daughter Adele in France. She speaks both French and English fluently however speaks French with her baby.

Adele is 13 month old and goes to a daycare while Lily works as a nurse. Lily loves to spend time with her daughter and takes pride in her development. She sometimes struggles with the unpredictability of having a baby. Her family does not live close by so sometimes it is stressful having a child without anyone helping to take care of it. She wishes she could have some more carefree alone time.



# Lily Persona

#### Questions

- 1. How can I teach Adele English?
- 2. How can I give my daughter all opportunities she deserves?
- 3. How can I keep on developing on my own and have some alone time?

#### Goals

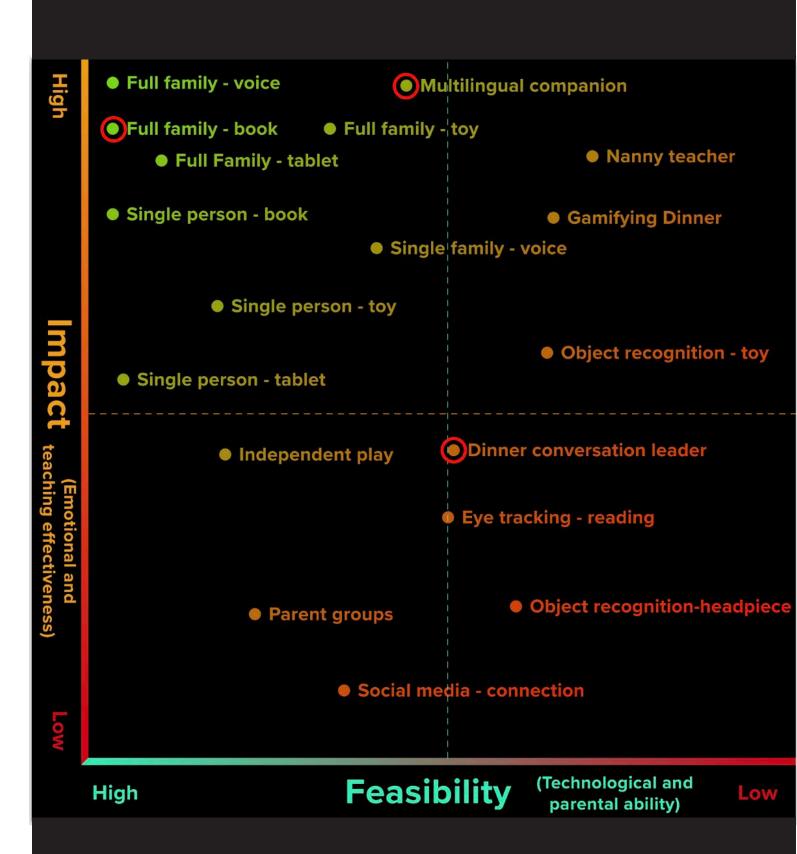
- 1. I want to give Adele all opportunities..
- 2. I want to raise Adele bilingual even though I raise her on my own.
- 3. I want to keep on learning and developing my own skills.



### 2-axis Idea Chart

#### Top preliminary ideas:

- 1. Connected book storytelling
- a. A physical book with family stories translated
- b. Integrated app connectivity
- 2. Multilingual companion
- a. Conversational
- b. Object recognition
- 3. Dinner conversation leader
- a. Table top device to help direct dinner conversation and facilitate second language learning



# **Connected book storytelling**

Program is started 3 months before birth of the child with a questionnaire sent to family members including but not limited to Mother, Father, Grandfather, Uncle, and cousin.

The stories are translated into the target language and printed into a physical book. Printed in the corners of the pages is icons that can be scanned to reveal more information about the story.

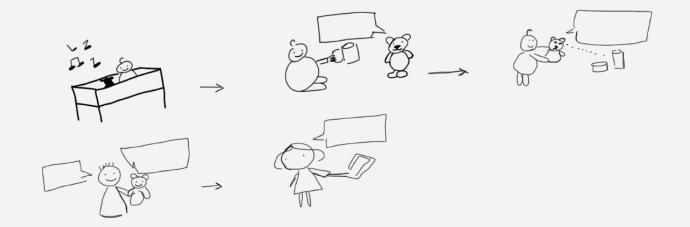


# Multilingual companion

The multilingual companion is supposed to be like a friend to the child that speaks in a different language and evolves with the child.

During the first month the companion would sing and relax the baby. Once the baby gets to a age in which it starts to recognize words and start to speak the companion start to talk with the baby and explain different objects.

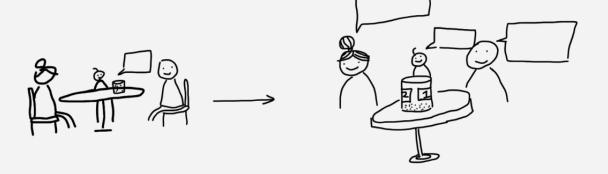
The companion is linked to an app on the parents phone. That way the parents can decide on talking topics or activities.



# Dinner conversation speaker

Dinner is often the only time a family can sit down and talk all together. It is an opportunity for the family to practice conversation in another language.

The dinner conversation speaker teaches a new set of vocabulary words every night and helps facilitate conversation. It is a way to slowly introduce a language to all the family members while they're in the same space.



# Research based our on concepts

After we developed our three main concept ideas we decided to do further research especially on the storybook idea. We conducted another round of interviews as well as a questionnaire that got 52 answers.

#### **Highlight Quotes**

"Great idea! I want him to have a sense of where he came from and of who helped shape him. Solid way for him to get to know people he may only get to see occasionally."

"Helps instill strong sense of identity and healthy pride."

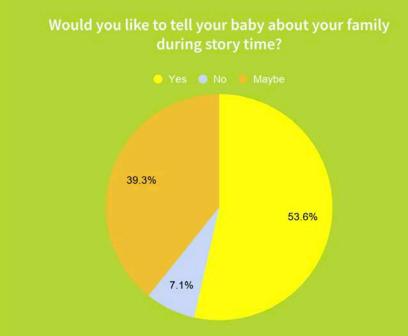
"Children develop a love of learning so early. Sharing words is the basis of education."

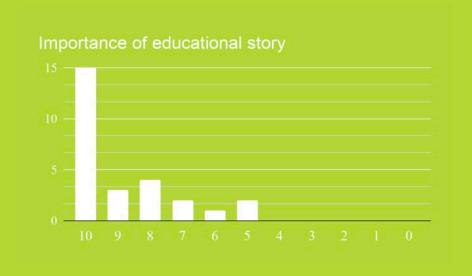
"To have quality time with child & to show pictures & that what you are saying is words"



# **Key Insights**

- 1. People are interested in telling their children about their family history.
- 2. Story time happens at least five times a week, and up to twice a day.
- 3. Story time lasts anywhere from 10 to 25 minutes, enough time for a short story.



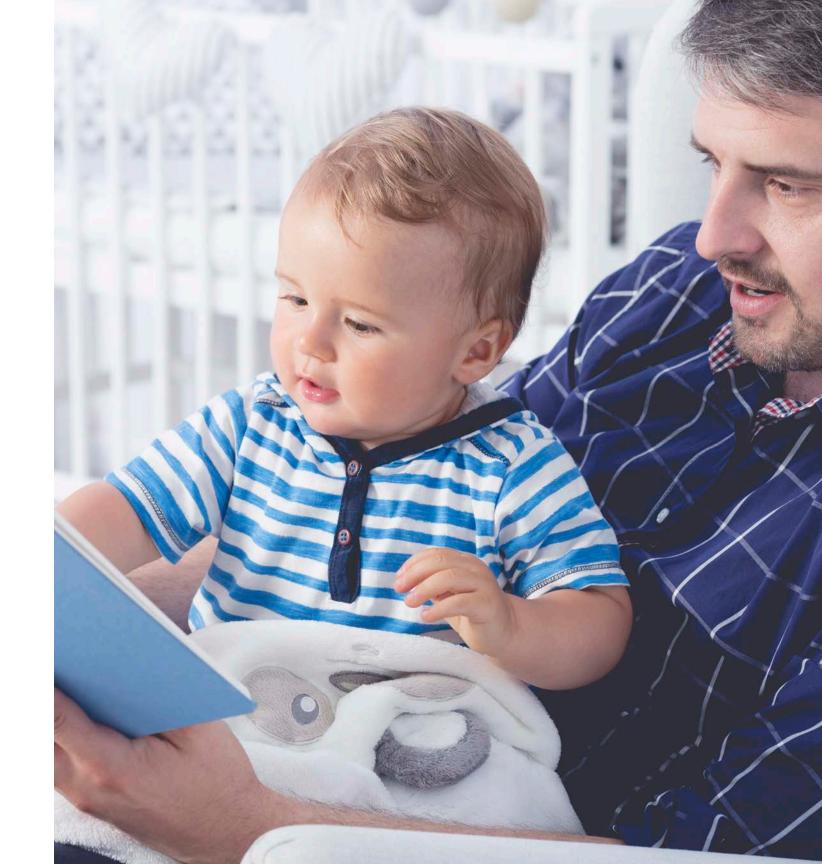


## **New Target Users**

We changed our target user group to parents with 6-month-old to 2 years old babies to now parents with children between ages of 6 months to 3 years old

We decided to go with the storytelling book and wanted to develop a product that would follow the children from the earliest story telling moments to the development of speech and character.

Further we decided to eliminate the language learning aspect and fully focus on developing a book that tells private family stories and uses the calming storytelling moments in the day to teach valuable knowledge about the family.



## **Main Competitors**

#### 1. Put Me In Storybook

A preset story where you can change the names of the characters. Options to also add photos on the last page.

#### 2. Wonderbly

An interactive customizable book where kids can find their characters, similar to "Where's Waldo"

#### 3. Storyworth

A service that collects stories and creates a custom biography based on the answers to the prompt.



### New Persona: Lana

Lana is a 35 year old mother of three year old Diana. Lana's parents live in Haiti and aren't able to visit often. She would love a way for her daughter to be familiar with her family's history.

One Lanas favorite moments of the day is story-time with her daughter, right before Diana goes to bed.



# **Opportunity Statement**

People cherish story-time and also love sharing family history. How might we combine these experiences to make the most of the precious time they have.

# **Solution Statement**

Create a platform that allows families to easily create a storybook based on their own stories. Providing a meaningful way for children to learn about loved ones.

### Storyboard



#### 1. Baby-shower

The whole family and many friends have come together to celebrate Lana, the soon to be mom.



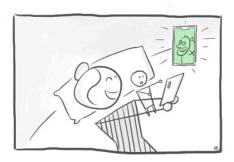
#### 6. Book ordered

Lana had her little baby. It is a girl and she is healthy and beautiful.



#### 2. Gift

Lana's brother Justin gives her a presents. It is the KidKin product! A personal childrensbook that tells family stories.



#### 7. Night time video

The book arrived and Lana is enjoying storymoments with her daughter. They see that grandpa send a nighttime video message.



#### 3. Invite Contributors

Exited about the gift Lana quickly invites all the people that she wants to include in her storybook.



#### 8. Story-time

Lana reads her baby a story about how grandpa met grandma.



#### 4. Content creation

Grandpa Q just as the other family members and friends are happily sharing their most important stories.



#### 9. AR

Lana wants some more information about how her parents met and decites to look at the images grandpa uploaded.



#### **5. Preview Book**

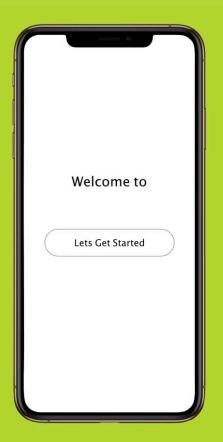
Lana looks through all the fascinating stories that have been collected and decides which once she wants to have in the book.



#### 10. AR

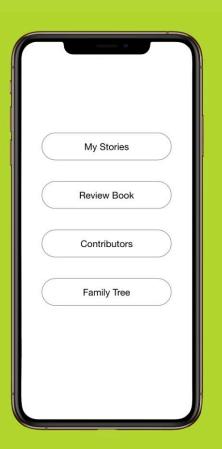
The baby falls a sleep and Lana is relieved and happy to know that her daughter will grow up with a close relationship to her family.

### LoFi Wire-frames - On Boarding



Instructions

Short optional swipe through summary on how the KidKin product works.



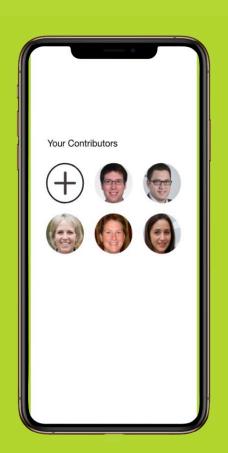
Homepage

From here the user has the option to go to all the different areas of the app.



**Add Contributers** 

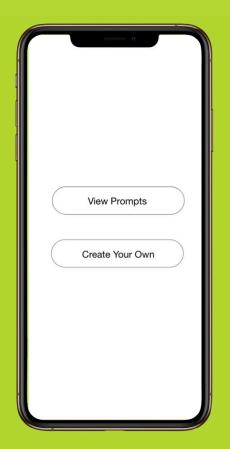
The parent can decide who they want to add to tell stories.



#### **View Contributers**

A broad overview over who is able to add stories, videos and othert content.

### **LoFi Wire-frames - Story Entry**



#### **Prompt Options**

The user has the choice to either tell their own individual story or tell their story by answering a given question.



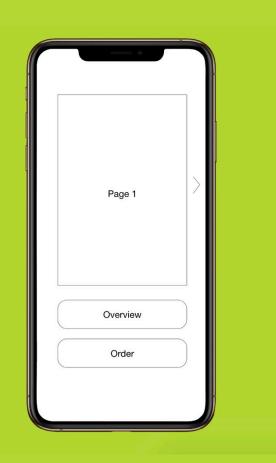
#### **Add Content**

The user can write the story in text format and add information by recording their voice, taking a video or adding pictures.



#### **View Progress**

The user can see their work in progress as well as all contributers published stories.



#### **Preview Book**

The curator can look at a mock-up of the book before ordering it.

#### **LoFi Wireframes - Storytime**



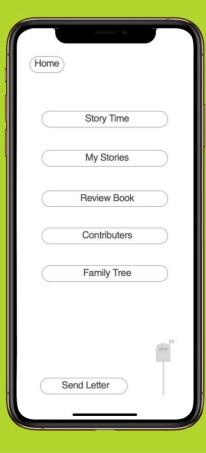
**AR Home Screen** 

The landing page when opening the app. The user can go with the phone over the book and see AR features.



**Receive a Letter** 

The user can open and play the little video letter.



Home

The homepage with all the different options.



Send Letter

The user can record themselves for a few seconds to send the video letter.



Replay Letter Replay or send.



#### **Select reciver**

The user can choose who they want to send the video letter to.

#### **AR Function**

A part of our concept is to display addition information such as video and voice memos, as well as additional text informations, pictures and moving illustrations in AR on the phone when holding it over the book.

Through our research we knew that some families do not wish their children to interact with screens which is why we decided to make the AR function purely optional. The book can be read seamlessly without any AR function.



## User Testing Physical Prototype

We tested 7 different physical prototypes that embodies different sizes and layouts.

We found out that a smaller (8´x8´), squarer book was the most comfortable to hold. Further we wanted to know if users would like a integrated AR section. The responses were against the integrated AR section. "It feels odd to see the AR addition when just reading the book."

Two testers said that they wanted the illustrations to dominate the pages. They said that in a childrensbook the illustrations should be the main focus.



# **User Testing AR Function**

During the user testing we wanted to see whether users preferred to see the AR extend off the pages or be limited to the page or even a specific section within the page. Further we wanted to know if they would like to see the AR be visually content with the story content (lines etc.)

Through the testing we found that users enjoyed the AR which went beyond the page borders and they did not feel the need to have the AR content connected through lines with the contend in the book. Most of them agreed with the idea of the AR being an optional addition and not a requirement. One tester said that having to hold the phone to show the AR would be annoying.



## **User Testing Wireframes**

While testing our wireframes we asked all our testers to use the think-aloud technique. For the evaluation we used both UX experts and novius usres.

We however found that we got more valuable information from the UX experts. We found that in order to get better feedback from novius usres we had to increase the fidelity of our wireframes.

Most of our content feedback was based on our differentiation from curator and contributer. One tester advised us to change the app in a way that everyone can see the stories not just the curator. "You're already telling stories, so sharing stories about your family fits in nicely."

Further we learned that users wanted direct information on how their contribution helps craete the book.

From the two novice users we tested we got a lot of feedback about the fidelity of the wireframes which was not as useful.



#### Logo Development

KidKin stands for and kin means family. We created a variety of logos and tried to tie in the ideas of love and reading together.

We opted for the logo in the top left because it was simple and whimsical. It represents the idea of children leaning on and being supported by their parents and their family history.



## Illustration and Layout Development

We decided on a modular, geometric layout to make it as simple as possible to personalize. By using shapes that were easy to combine, it makes the process more practical and usable in all situations.

From the business standpoint, it also lessens the cost because it requires less man hours to create custom stickers. It also is kid friendly design!



KidKin Falling Rocks



driver education and learn to drive a car.

#### **Falling Rocks** A Story from Grandma

The spring of my sophomore year in high school I learned my family would be moving from Mt Prospect, Illinois, which is a suburb of Chicago, to Saratoga, California which is a small town in the foothills south of San Francisco near San Jose.

I was not a happy camper. I liked where we lived. I was happy at Prospect High School. I was a "Rhythmette". I had tried out, survived three cuts and had earned a place on the school drill team.

KidKin Falling Rocks Being a "Rythie" at Prospect was a big deal. I didn't want to move. Additionally, In the coming summer I was turning 15. Turning 15 meant I could get my learners permit, take

KidKin Falling Rocks

My bad attitude did not change reality. The end of the school year came. The moving van was packed. We loaded up our cars and headed west. My family included me, my mother and father, my three sisters and our schnauzer- Heidi. We owned two vehicles, a Ford Maverick, a small 2 door car and a monster of a car called the Buick Electra 225.



KidKin

The space between the rock and the edge of the road was just big enough for the Buick to fit through but the edge of the road dropped off straight down to the valley below. My mother was terrified. With lots of guidance and reassurance from the small crowd of people gathered my mother drove the Buick with my sisters inside slowly around the rock and then down the road into Aspen.

After this suprising experience, our family joke became Oh Look Mom - "falling rocks!"



Falling Rocks

#### **Character Illustartion**

Our goal is to allow every book to have personalised illustrations. We wanted to allow the users to customize their own characters, a bit like bitmoji's so that they better represent that person.

We went with a simple geometric style to make it more customizable. People can change hair and skin color to match themselves.



#### **Environment Illustration**

In order to allow users to customize their own illustrations we decided to go with a sticker system where the users could build their own illustration through putting together different illustration "stickers"

These illustration stickers are mainly built out of geometric shapes so that they easily can be added together.



### **Vision Video**

For the shoot of our vision video we printed and binded a mock-up of the storybook as well as created prototypes of Hi-Fi screens.

We used a mom and her doughter, who we knew from the prior interviews as our protagonists.

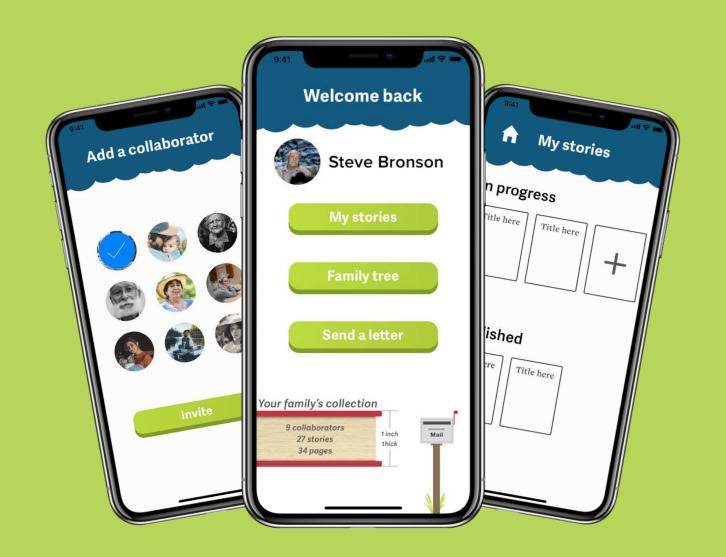


### **Initial App Design**

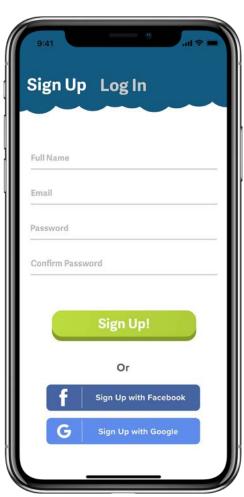
The app is separated into up to three sections for the parent, curator, and contributor. Each allows a varying amount of access to the project.

We started off using Adelle Sans throughout the app because it is a humanist sans serif font. The large green buttons added to the interaction design to increase the movement and interactivity of the interface.

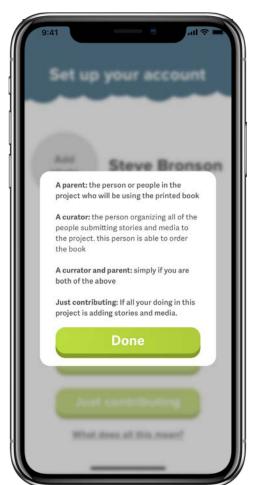
The cloud header and the childish illustrations add to the over all child oriented style of the app.











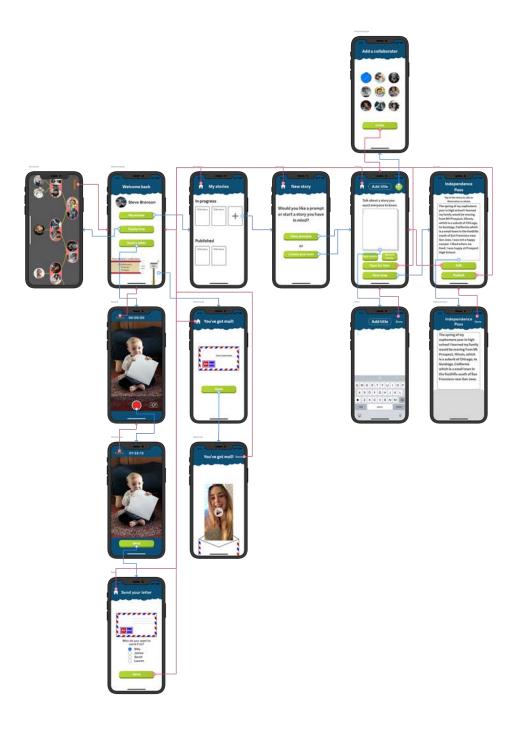


#### **Parent**



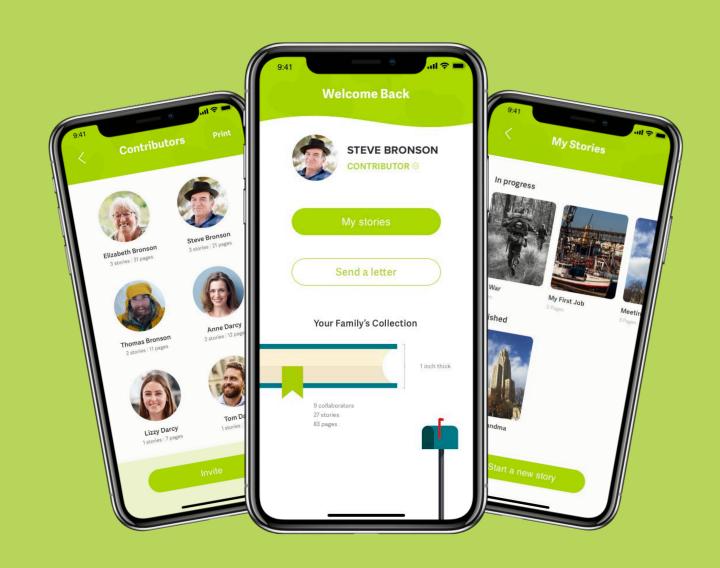


## Contributor

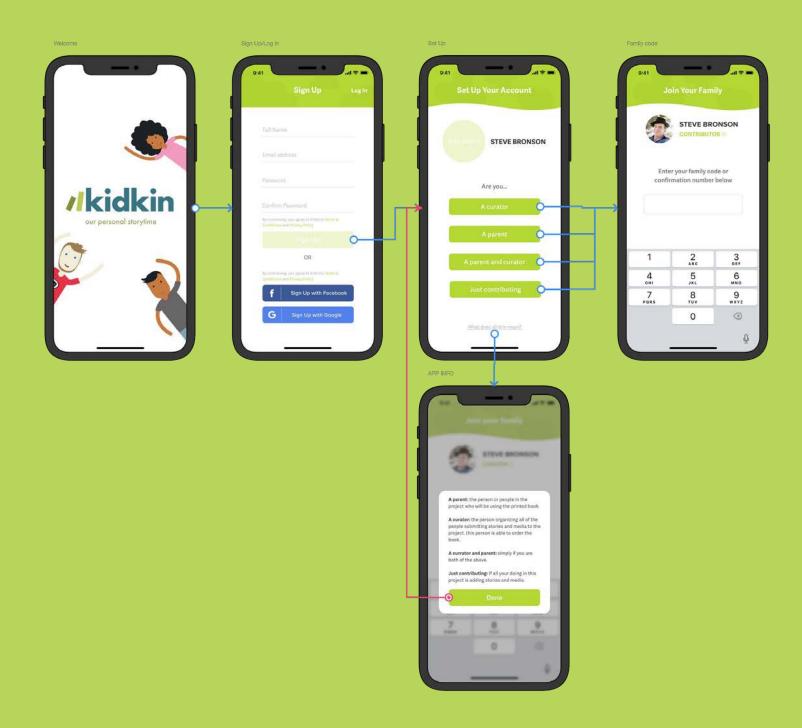


## KidKin App

After some usability testing and feedback sessions we decided it iterate the designs to a cleaner, more modern and intuitive design.



#### Wireflows

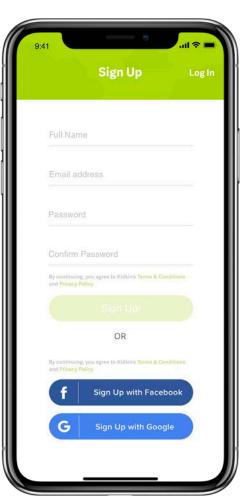


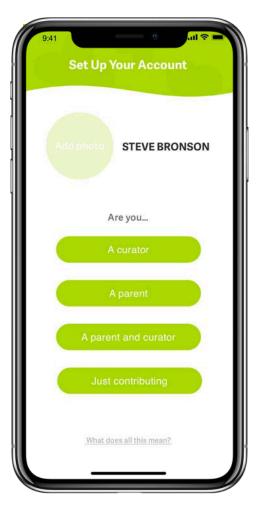


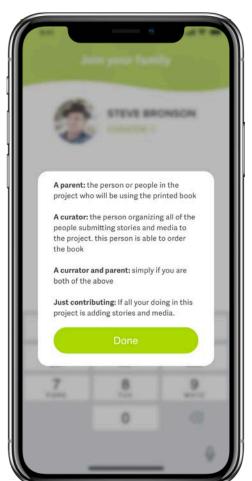


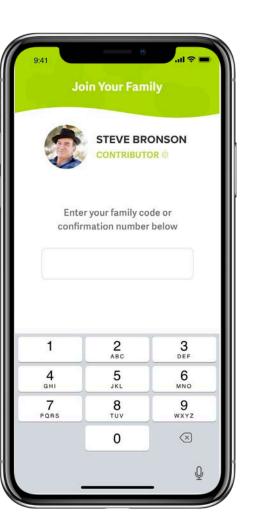




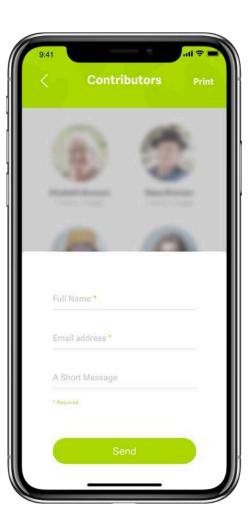


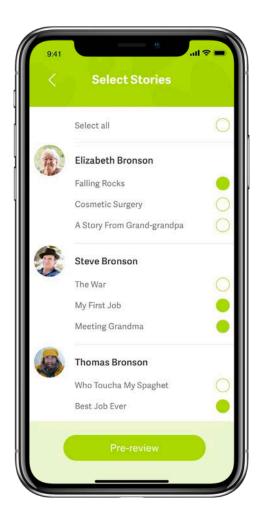


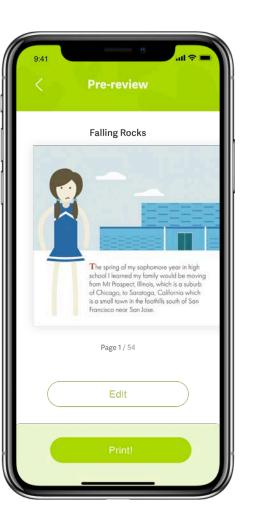


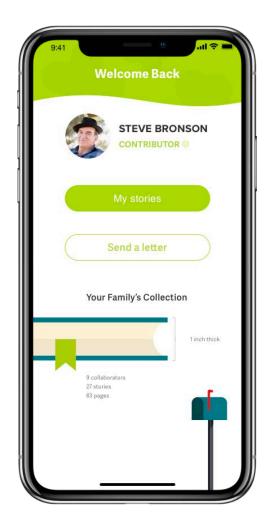






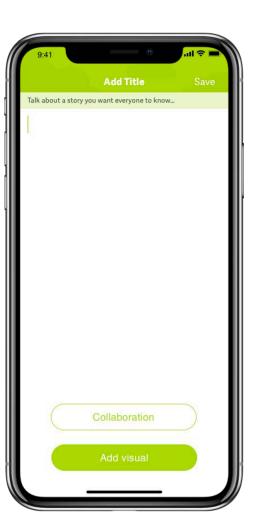




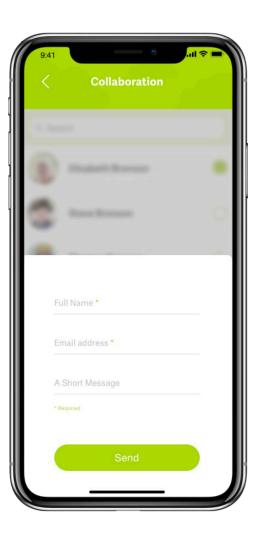


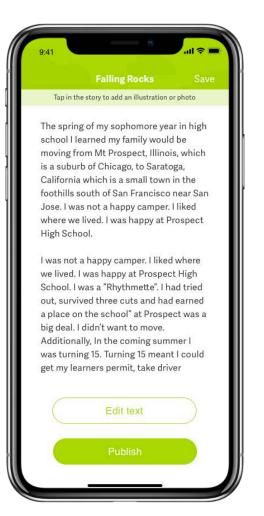




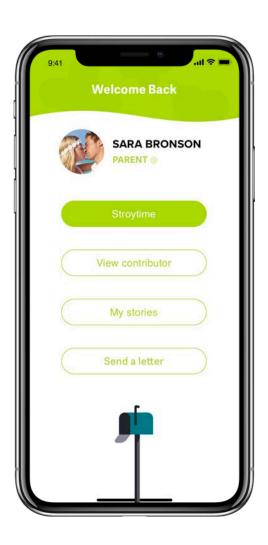
























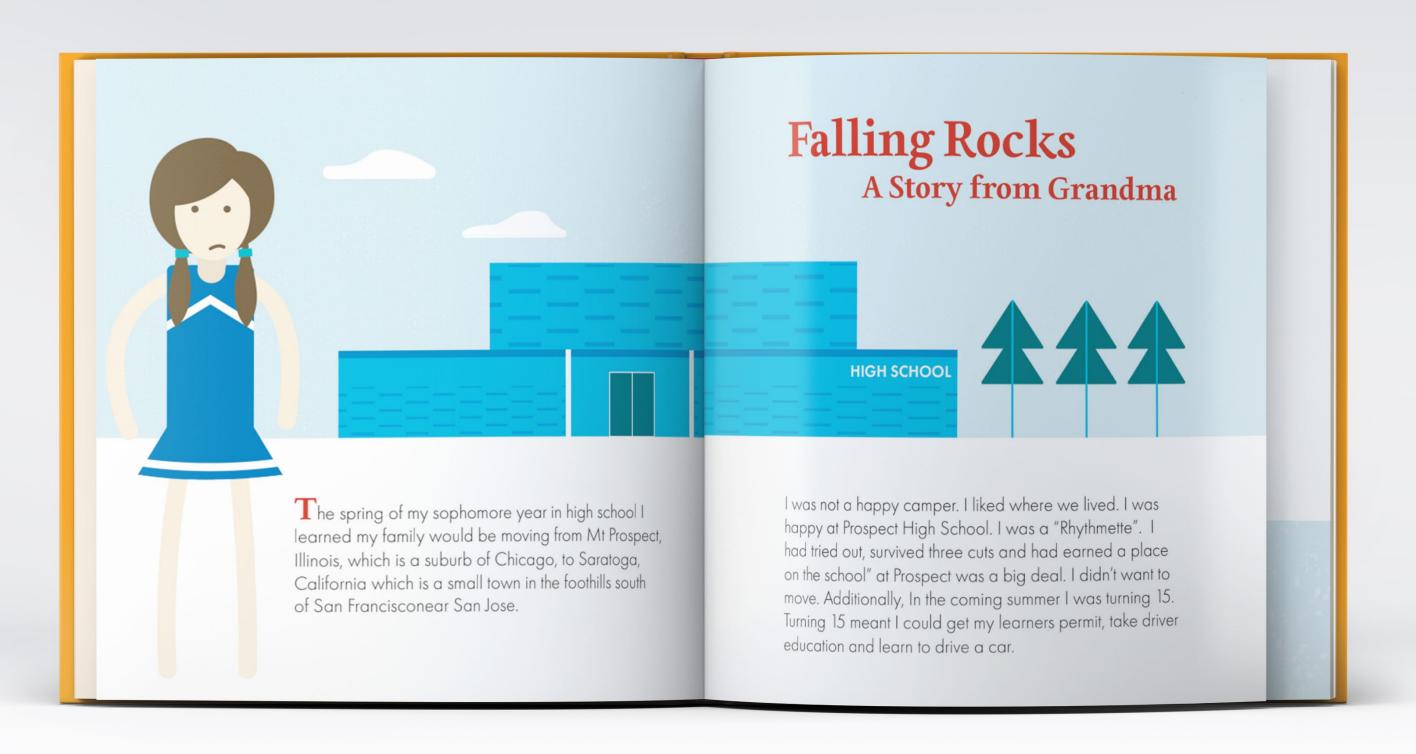
#### KidKin Storybook

The KidKin Storybook is a physical collection of family stories from different family members. Every storybook is unique with original illustrations and AR content.

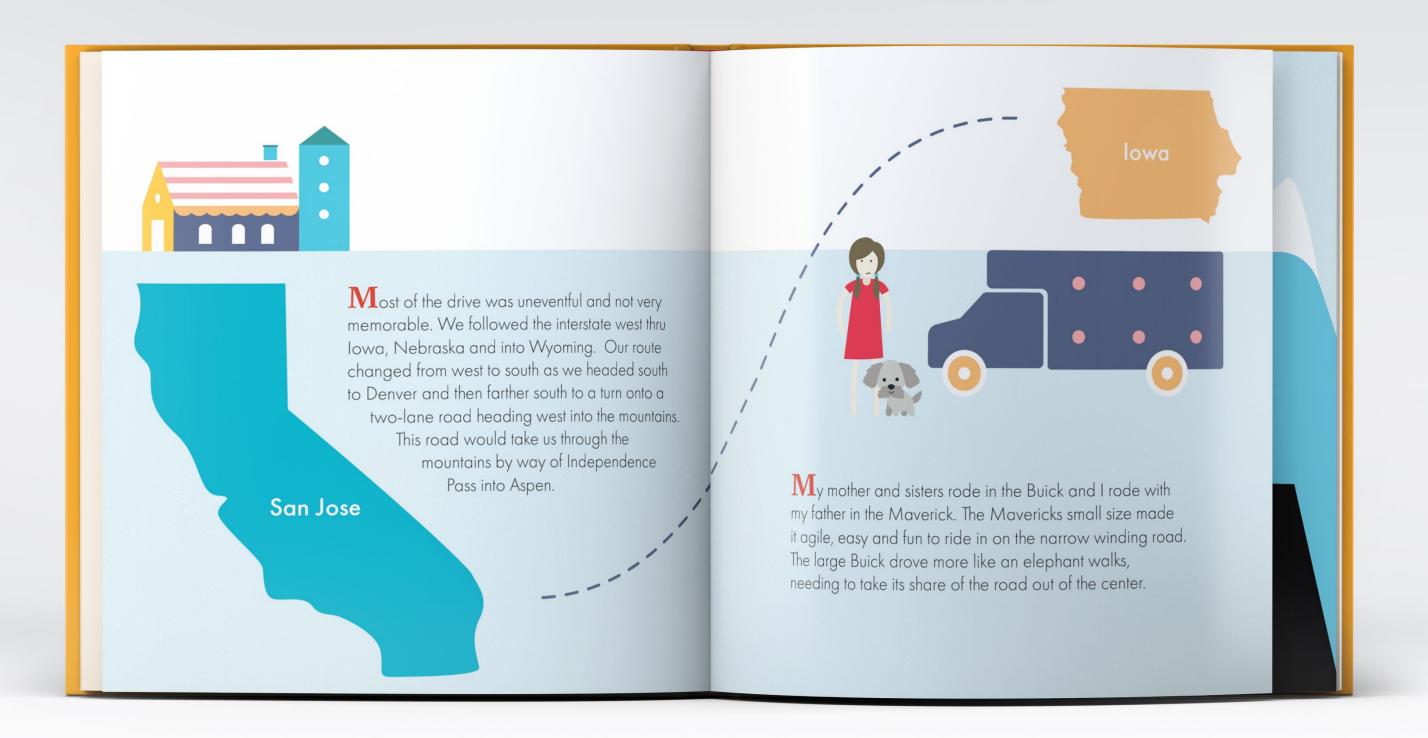
Families can order different books with their own selection of stories so that that the KldKin Storybook can work as a series.

Your first KidKin Storybook doesn't have to be your only.

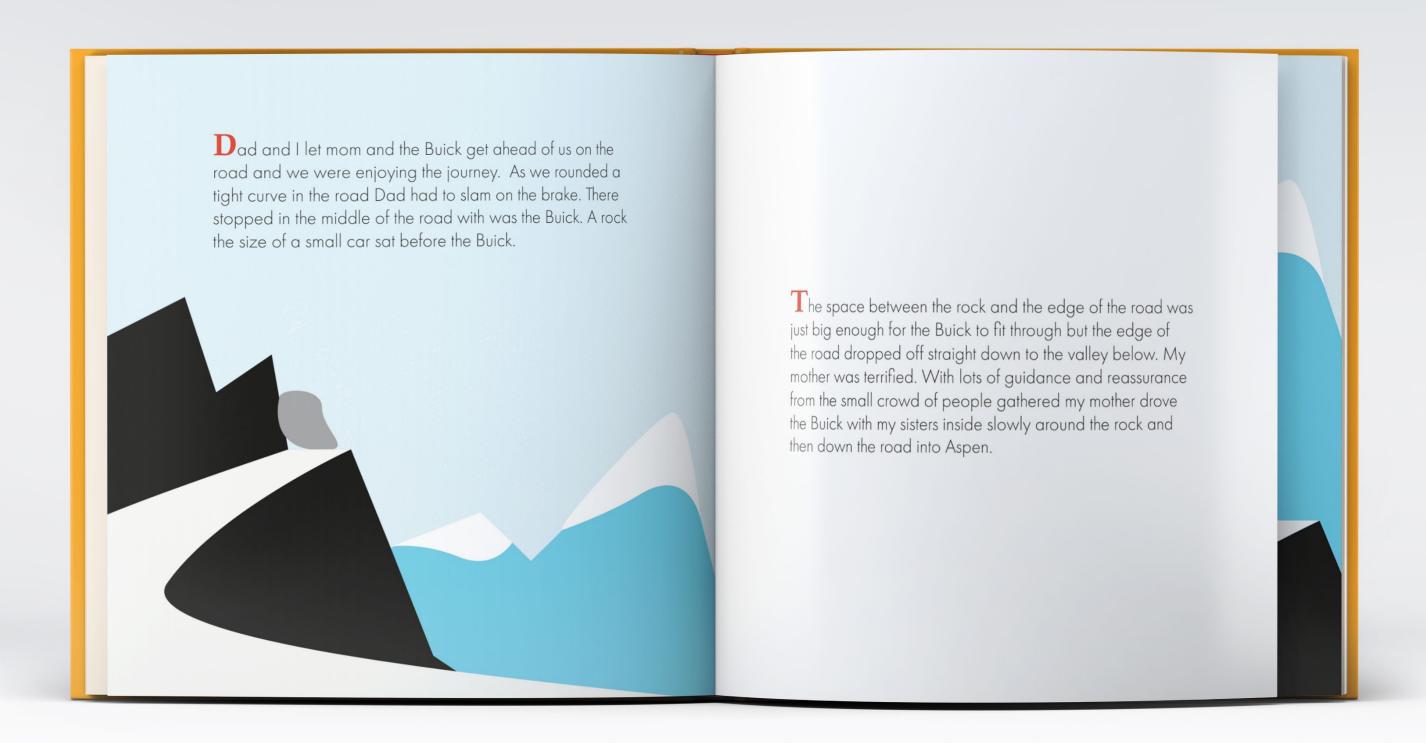










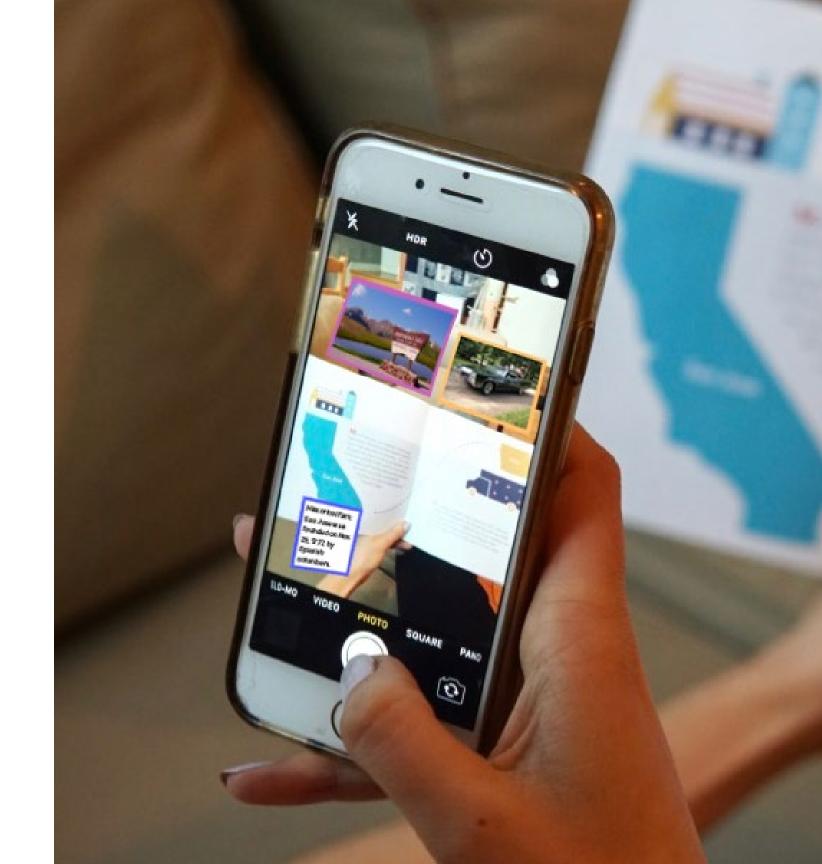


#### AR

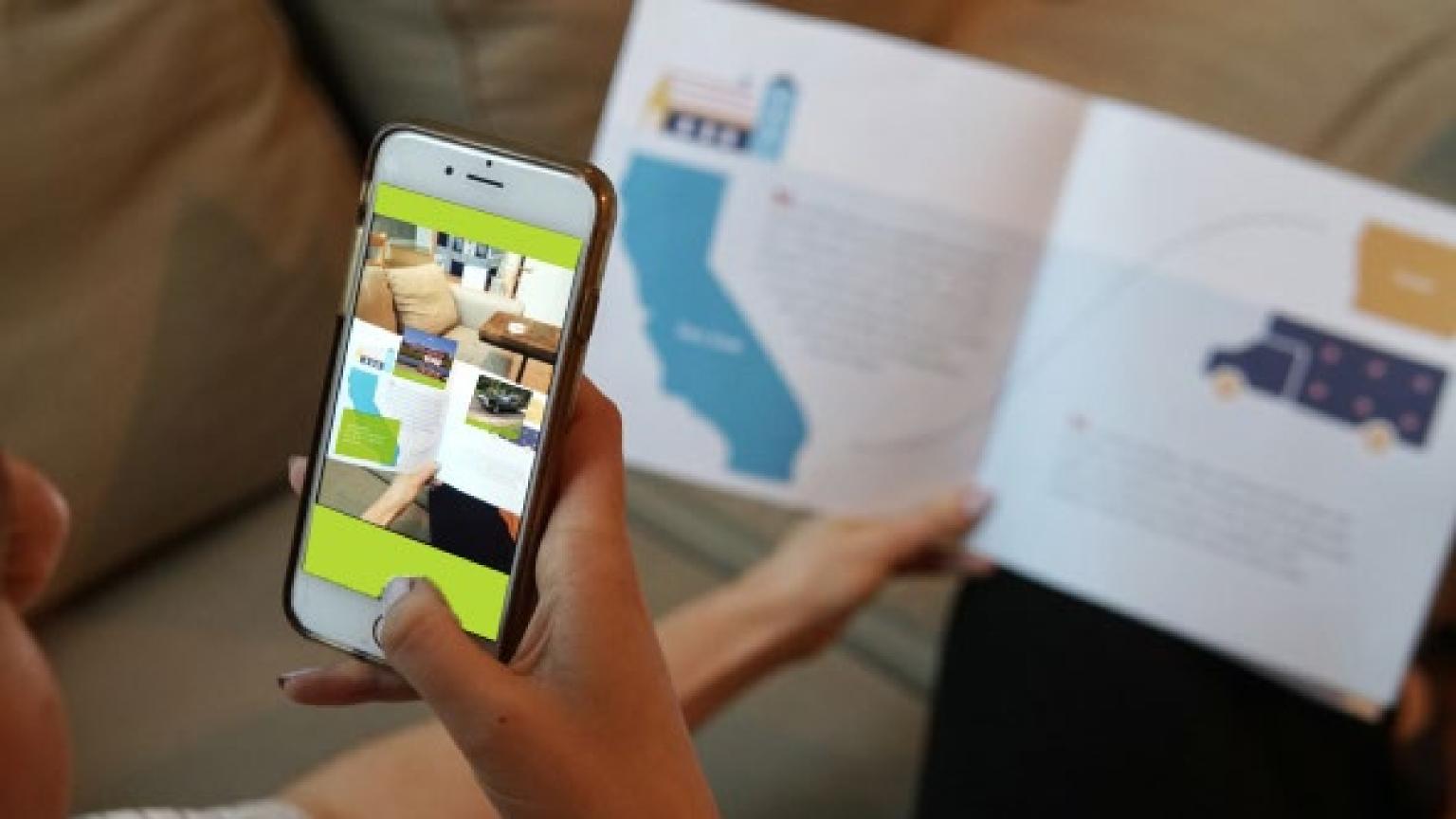
Through the AR function, users can access more information about the stories they are reading.

Information such as historical facts, photos, videos, illustrations, and voice memos appear and can be interacted with.

This allows users to gain deeper knowledge about different family stories.







#### **Executive Summary**





#### Summary

A platform that allows families to easily create a storybook based on their own experience. Providing a meaningful way for children to learn about loved

#### **Opportunity Statement**

People cherish storytime and also love sharing family history. How might we combine these experiences to make the most of the precious time they have.

#### Market

U.S. book publishers generated 2 billion dollars selling children's books every year.

#### **Key Functions**

- 1. Tailored story book that provide family bounding experience
- 2. Multimodality storytelling, parents have the option of only using physical book or enrich the information with VR.
- 3. Create connection between the children and a wide range of family members





## Thank You