

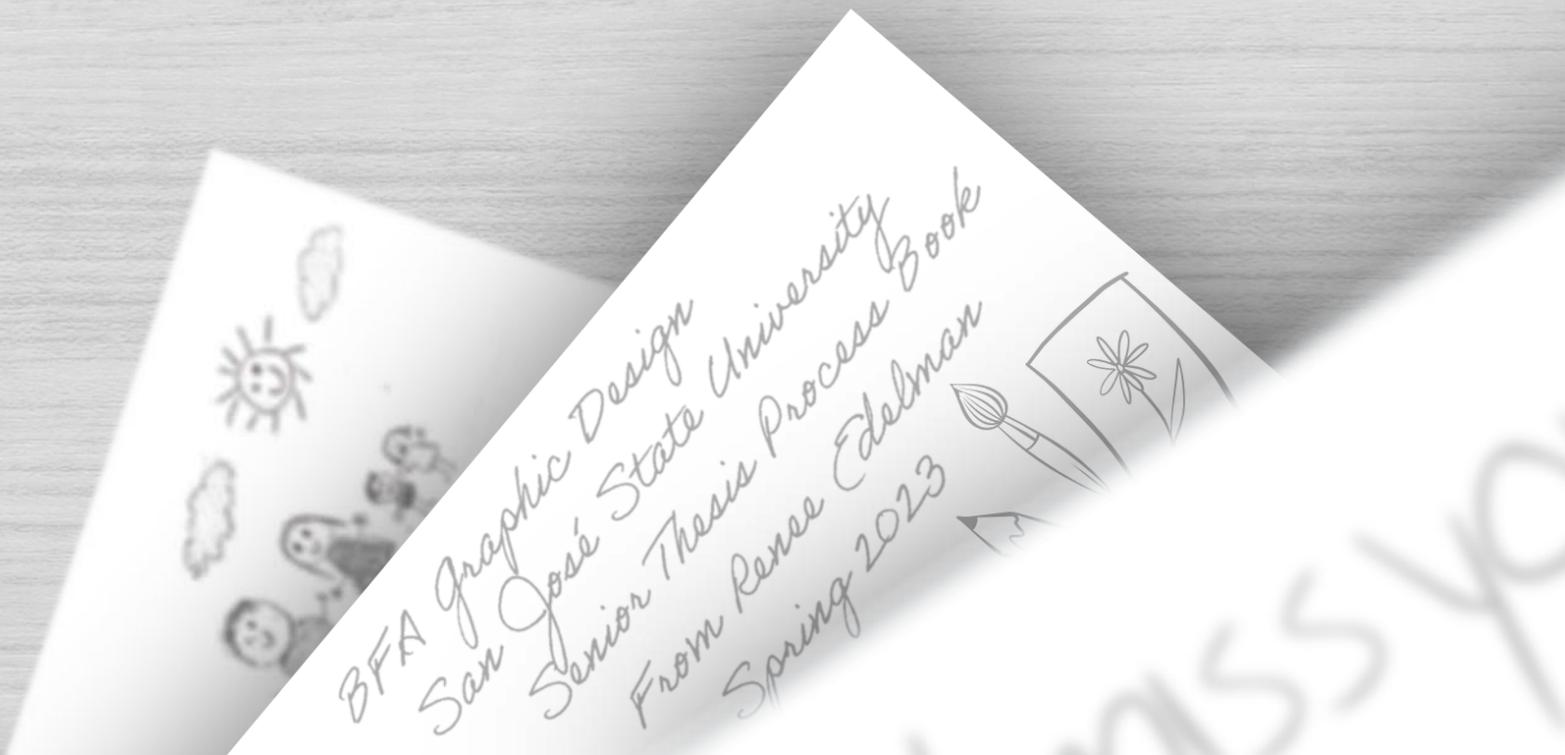


Dear,

Far Apart, But Close at *Heart*

Dear, Far Apart, But Close at *Heart*

Renée Edelman



Dear,

Far Apart, But Close At *Heart*

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Table of Contents



01 The Project

- 02 Abstract
- 03 Thesis Statement
- 04 Topic Discovery
- 06 My Experience
- 07 The Goal



09 Research

- 10 Primary Research
- 12 Secondary Research
- 14 Expert Interview
- 16 Repository of Insight



21 Development

- 22 Manifesto
- 24 Initial Sketches
- 26 Refined Sketches
- 28 Storyboard
- 30 Branding
- 32 Site Map
- 34 Low Fidelity
- 36 Mid Fidelity



39 Dear,

- 40 Branding
- 42 Physical Design
- 44 UI & UX Design



55 Conclusion

- 56 Reflection
- 57 Acknowledgments
- 58 Bibliography
- 59 Colophon

The Project



02	Abstract
03	Thesis Statement
04	Topic Discovery
06	My Experience
07	The Goal

Family
Home
Social
Media
Love
Lonely



Abstract

Families come in many different sizes, shapes, and distances, whether chosen or biological, one thing is for sure: *family is important*. However, our lives are becoming busier and distance is increasingly separating family members. Whether separated by oceans and continents, or simply a few towns, we do not spend nearly enough time with family.

While at first glance it may seem mainstream, popular *social media* would bring families members closer together, it can actually create more distance among them. Social media only gives small highly selective—sometimes even superficial—glimpses into one's life, never showing the full picture. Families who only keep in contact via social media are only seeing what everyone else is seeing—this includes bosses, co-workers, casual friends, other random people on the internet—and are missing out on a lot of one another's very real and personal daily lives. Social media is *depersonalized*, losing that touch of personalization and love that families deserve and depend on one another for.

The elderly, many with very limited *digital literacy*, often struggle with social isolation and feel left behind by their family members leading to sadness and depression that can follow them to their grave.

As a designer and member of a long distance family, I am seeking to bring families back into our regular lives, hearts, minds, and homes, sustaining an *emotional connection* with family members across time and space. In an effort to include family members into our regular lives, I will design a smart home ware device that will allow family members to share a virtual space where moments of one another's lives can be shared with family. The smallest touch of *personalization* brings a whole new level of meaningfulness to our communication.

Even the *smallest moments* to remind our family members that we love them and are thinking about them can change one's outlook on their entire day.

Thesis Statement

With time and distance separating many families around the world, close emotional connections are lacking. I want to explore the different ways familial communication can be made more *authentic* and *personalized*, in a way that is *inclusive* of everyone, no matter their experience level with technology.

Topic Discovery

We began the thesis project by articulating our *interests and concerns* through research in order to establish a foundation for our work. I listed 3 topics that were of deep and abiding interest to me.

A Nomadic Home / Fluid Living

Nomadic life is about creating your own path. Nomadic life is an alternative lifestyle of people who choose to live in vans, trailers, or other vehicles that have been outfitted as mobile tiny homes. This nomadic way of living is characterized by minimalism, simplicity, adventure, travel, and reassessment of what is truly meaningful in life.

Long-Distance Relationships

Long Distance relationships, including those with family, can make one feel lonely. Families with members spread far and wide geographically can make having that tight family feeling difficult. It often come with loneliness and missing on another. Due to distance, the elderly can often feel socially isolated and left behind by other family members.

Social Media and Reality

Social Media does not represent reality. Only showing small, highly selective—sometimes even superficial—glimpses into one's life, social media never shows the full picture. Reality is often misrepresented, whether it is through Photoshop, selective sharing, or false information.

Reflection

After reflecting upon my interests, they are all linked by the idea of *connection, meaningfulness, and authenticity*. These interests could also be associated with the overall idea of home, family, and popular media. Solving the issue of home, superficial representation, and familial connections could connect my interests together.

I will research further into the topic of home and family, particularly those involving long-distance relationships. Another path of inquiry I could explore further is that of elderly, including elderly family members, and their relationship with home, family members, physical distance, and technology.

Connecting to Our World

As we generated ideas and made real world *connections to our thesis topic*, the clarity of the direction of our thesis became apparent. We begin transitioning from generalized topic to the starts of a thesis.

Physical places where your thesis may be found:
Home, Airport, Kitchen

Huge objects related to your thesis thinking:
Large Dining Room Table, Airplanes, Refrigerators

Tiny objects related to your thesis thinking:
Polaroid Photos, Stamps, Letters

Abstract qualities related to your thesis:
Love, Comfort, Emotional Connection

Physical qualities related to your thesis:
Physical Distance, Cozy Hugs, Family Gatherings

Blue collar jobs that your thesis performs:
Mail Carrier, Construction Worker, General Contractor

Foundations or organizations that commission your thesis:
AARP, US Postal Service, Family Therapy Services

Historical events that give your thesis context:
WWI and WWII Letter Writing, Popularization of Social Media, COVID19 Pandemic and Social Isolation, Privacy & Safety Concerns Regarding Youth and Social Media

Supermarket items that could nourish your thesis:
Greeting Card, Fridge Magnets, Home Magazine

Designers who could give a workshop about your thesis:
Don Norman, Stefan Sagmeister, Ayse Birsel

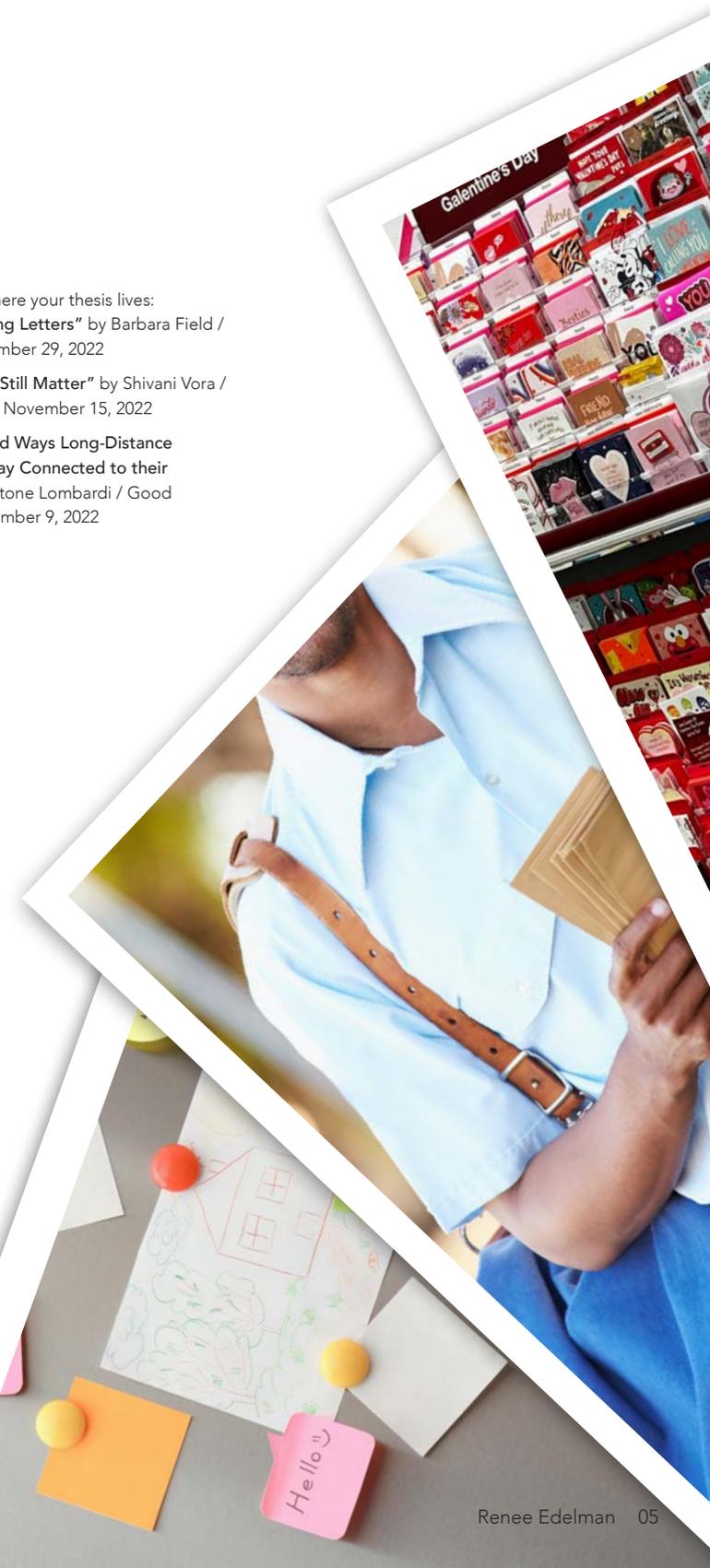
Films that are the start of your curated thesis series:
Disney's Up, The Notebook, Good Luck Charlie, Friends, Modern Family, Gilmore Girls

Recent news items where your thesis lives:
"The Benefits of Writing Letters" by Barbara Field / Verywell Mind / November 29, 2022

"Do Thank you Notes Still Matter" by Shivani Vora / The New York Times / November 15, 2022

"Expert Recommended Ways Long-Distance Grandparents Can Stay Connected to their Grandkids" by Kate Stone Lombardi / Good Housekeeping / December 9, 2022

Family
Sense of Home
Distance



at first kismet was
 growing Tan She got
 other for we paid
 are nails Leja paid MY
 nails and I paid her nails
 Tan We affirm Tan Leja
 had to go



RENÉE
 JUST WANNA SAY
 THAT ...
 I ❤️ U
 VERY VERY MUCH



Rose en een
 leuke kaartje.
 voor Renée.
 Gaetje
 Pa en Ma.
 xxx.



My Experience

My family is separated by oceans, with me living in and California and the rest of my family living in the Netherlands. The physical distance of an 11 hour plane flight and a 9 hour time difference, with all of us having individual busy lives, the connection between us has been limited to occasional text messages and mainstream social media. However, this connection is limited, not only in personalization and authenticity, but also limited in access to particular family members. My elderly family members and the very young do not use these types of communication, meaning my connection with them is very minimal. Safety is a large concern, and digital literacy is limited in both age groups.

With distance, the communication with my Dutch family was always challenging. As a young child, the main form of communication between my family in the Netherlands, and me in the United States, was *letter writing*.

We would send each other cards, with our own handwriting, drawings and doodles, and Polaroid photos. Even without taking into context the written language, just seeing the handwriting, imagining the pen or pencil scribbling across the page, was extremely personal and authentic. This handwriting and the way the writing utensil moved across the page was *unique to each person*, a piece of their personal identity being shared with me with each letter.

I treasured these items when I received them, and still to this day, have the cards, drawings, and photos that are the most meaningful to me hung up in my room.

When visiting my grandparents' home in the Netherlands, my grandparents would have the letters I wrote and the drawings I drew hung up on their wall, placed on a cabinet, or saved in a drawer in their living room. It was clear to me that my handwritten letters and drawings meant a lot to them, and reminded them that I loved them. Through these items, I was able to have a presence in their house physically, even when I was not able to be there physically myself.

When my Grandpa passed away via voluntary euthanasia after many years of battling cancer, I was the only family member that was unable to be present. Looking back, I feel extremely guilty. Upon passing away, my Grandpa had the most recent letter I had written for him grasped in his fingers, as a reminder of me so I could still be with him in spirit. This letter was placed in his coffin upon his cremation. This stands out in my memory, and shows the power and importance of personalized, authentic communication in being able to bring a sense of family into a home, despite physical distance that separates us.

As I've grown up, I have felt my connection with my family members, particularly the elderly, to be slipping away, the same way handwritten letters have quietly faded into the past. However, a recent health scare my grandma experienced made me realize the lack of connection I've had with her recently, and the way in which modern technology has managed to *separate us*, instead of bringing us *closer together*. My cousin has had children, who have begun to grow up in recent years. The last time I saw my family, she had just had her first child and the others were not even a thought yet. Even though I want to have a connection with them, I have very minimal experience with them so far in their life. I long for a closer connection with all of my family members—the very young, the elderly, and everyone in between.

I strive to design a smart home ware device that will bring families, like mine, closer together emotionally.

The Goal

The Goal

My goal is to design a smart home ware device that allows family members to connect across space and time, effectively bringing family back into our hearts, homes, and daily lives. I aspire to design the physical form of the item, as well as a user experience and user interface that is accessible across the ages and experience levels with technology.

Audience

My audience includes all families who feel disconnected. However, I will pay special attention to those with limited experience with technology, specifically the elderly and the very young, to ensure to close the disconnect between these two generations.

Questions

How can we make communication amongst family more personalized and authentic?

What do we value most about communicating with family, and what form of communication means the absolute most to us?

How does isolation effect the elderly, and in what ways can we ensure we include them when designing new technology?

HELLO RENEE
 I love you
 You are my
 favorite
 favorite cousin.
 XXXX markie

AUGUST '05
 hi, RENÉE
 I have fun with
 you here in Holland.
 When we played
 hide and seek
 with the keys
 and everything
 I'm gonna miss you
 bye
 hugs and kisses
 xx NADINE



19/4 2000 Hanna
 Lieve Linda
 Je vakantie heringren
 zijn nu compleet
 Wij zijn er wel
 te vinden mee.
 Gaetje aan
 Fernis
 Kusje voor
 Keesje

Research



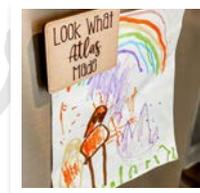
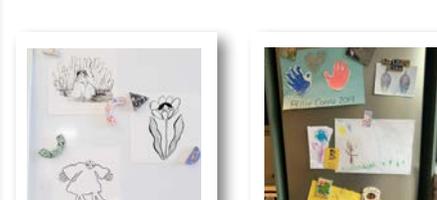
10	Primary Research
12	Secondary Research
14	Expert Interview
16	Repository of Insight

Primary Research

Seeking to understand a range of families' needs and behaviors, I visited family homes with a variety of ages living in each home—from very young to elderly—seeking to hear their experience with long distance family.

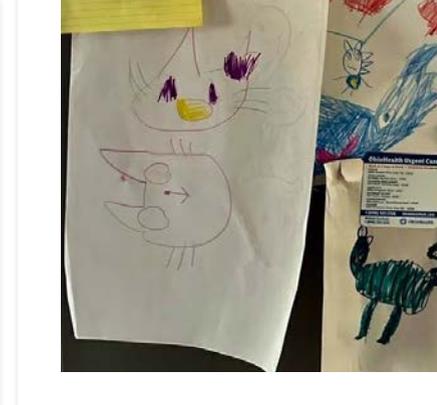
Amongst everyone's stories, there was a similarity: a longing for a closer emotional connection with family members. Lack of time, physical distance, and concerns about social media were some of the most common culprits creating an emotional divide amongst family members. Concerns about the safety of social media came up most frequently with parents of young children, who feared the consequences of exposure to the dangers of the internet, and the older generations, who felt a distrust in the safety of their personal information online.

Young children enjoy expressing themselves creatively, drawing and writing short notes to the people that mean the most to them. Elderly family members reminisced on the time of "good, old fashioned hand written letters," while cherishing the drawings youth had left for them on their last family visit. Young adults and middle aged adults referred to handwritten cards received in their youth from aunts, uncles, cousins, and grandparents, many of them still treasuring these *reminders of familial love.*



Refrigerators had become a special place to keep family mementos, such as short notes, photos, and drawings, that would remind them of other family members, both near and far.

The number of notes on the fridge varied between families, some with several years worth of notes and others with only the most recent notes present. The importance and emotional value of the note determined its place and length of time spent hung up.



If we value handwritten letters, drawings, and photos so much, why is this form of personal, authentic communication no longer used regularly as a form of loving communication?

Many family members expressed that communication by letter and notes can be costly and takes too much time, particularly referring to the postal service.



Secondary Research

When conducting literary research, I sought to understand the issues and successes of mainstream *popular social media* and the way in which *loneliness* affects the elderly on a national scale.

Key Findings

01 Context Collapse

One of the biggest issues concerning social media is collapsed context, in which an individual's social media posts are accessible to multiple unintended audiences¹. People tend to modify their tone and self presentation when communicating with different groups in their lives. Controlling one's social identity can cause a lack of authenticity and personalization, only disclosing specific information in order to control social identity. This means the version of one on social media is highly filtered and can be considered superficial.

02 Connected Presence

The more successful social media interactions has led to a form of "connected presence," in which individuals make shorter, more frequent, and less formal communicative gestures. These gestures fulfill a phatic function, meaning the act of communicating is more important than what is said. These repeated and frequent actions mimic a virtual "tap on the shoulder" reminding the other party the relationship exists and that it is important to them².

03 A Disconnect Amongst Generations

Facebook is the number one social media website for the elderly, with 65% of those with a social media account choosing Facebook as their one choice. In comparison, only 3.9% of those aged 13–25 are Facebook users³. Those under the age of 13 are not supposed to use Facebook, according to the company's terms and conditions. Therefore, there is a disconnect amongst the generations.

05 Levels of Loneliness are Increasing

Loneliness is seen by many as the largest health concern we face. The number of people over the age of 50 years old experiencing loneliness has doubled in the past 10 years. 59% of elderly go at least five or six days without speaking to anyone at all. 40% of elderly consider television their main company⁴. With number of phone calls decreasing, the reliance on Facebook is increasing, where the issue of context collapse comes into place⁴.

06 Digital Literacy is Limiting

Digital literacy is another issue elderly face, with limited experience with technology, especially in a world where technology always seems to be evolving⁵. It can be difficult to keep up.

07 Distance Separates Families

Distance is the biggest barrier (69%) preventing grandparents from spending time with family members. Over half (52%) of grandparents have at least one grandchild that lives 50 miles away or further. Even with those who live near family members, busy or conflicting schedules prevent face-to-face communication⁶.

1. Abel, "Social Media, Rituals, and Long-Distance Family"
2. Abel, "Social Media"
3. David, "Tech & Modern Grandparent"
4. Campaign to End Loneliness, "The Facts"
5. Campaign to End Loneliness, "The Facts"
6. David, "Tech & Modern Grandparent"
7. Wiggins, "COVID Mail Attitudes"

The number of mail items sent through the postal service has dropped by

50%

in the last 10 years, decreasing rapidly.

However, according to a United States Postal Service survey conducted in 2020,

60%

of respondents believe handwritten notes hold more meaning than typed messages or emails.

Therefore, there is a disconnect between what is considered meaningful and the most popular forms of communication⁷.

“Be sure to ensure that the transition from

analog to digital

is both as simple and smooth as possible. This benefits all users, but especially those less familiar with technology, such as the youth and elderly, whose main life experiences take place in the analog.

Yoon Chung Han

Expert Interview

As I began my design process, I thought it was important to speak to someone very knowledgeable in interaction design. Yoon Chung Han—my tertiary advisor, professor, and professional interaction designer—had some important insight that assisted in my progress.

Yoon expressed the importance in ensuring to take into account the affordances when designing user interactions. Affordance is a relationship between a person and an object, in which users will decide which actions are possible based on their expectations and previous experiences in a similar situation.

When designing a new technology and user interaction, it is important to learn how your target audience anticipates affordances in relation to the context of the design. Perhaps the design will look familiar to the user, so the user will know what actions can be performed based on past experience. Particularly for those less familiar with technology, such as the elderly and the very young, the transition from analog to digital affordances has to be simple and have a smooth transition.

The only way to know whether your design is successful is to perform user testing, and learn what visual cues work best for them, what they can do, and what they are used to.

Another important note Yoon mentioned—within the User Interface, never give the user too many choices! While it may seem nice to give users many choices for customizability, it can actually hinder the design and confuse users instead.

Key Points

01 Importance of Affordance

I need to take in to account users' past experiences with technology, and what physical or visual clues will be most helpful as they are guided through the Dear, experience.

02 Perform User Testing

After completing my initial design, it is important to perform user testing, so that I can learn from their ease or difficulties.

03 Limit the Number of Choices

I need to consider the number of choices offered to users, throughout the set up process and the primary and secondary experiences.

Repository of Insight

As the project ideas began developing, several quotes from my research helped *guide me* and give me direction. From many walks of life and experiences, these people helped me develop a complete scope of the project in my head.

Drew Gilpin Faust

Drew Gilpin Faust

Drew Gilpin Faust is an American historian, the 28th president of Harvard University from 2007 to 2018, and was the first woman to serve in that role. She is passionate about the importance of both reading and writing both cursive and print handwriting.

The following quotes of hers were influential as I built upon the theory of this thesis project:

“Sometimes handwritten documents tell stories that their creators neither intended nor understood.”

“Handwriting is charming as in establishing an aura of the original, the unique, and the authentic. One’s handwriting is an expression and offering of self.”

“Crowds still throng athletes, politicians, and rock stars for autographs. We have not yet abandoned our attraction to handwriting as a representation of the presence: George Washington, or Beyoncé, or David Ortiz wrote here!”

“During my years as Harvard president, I regarded the handwritten note as a kind of superpower. I wrote hundreds of them and kept a pile of note cards in the upper-left-hand drawer of my desk. They provided a way to reach out and say: I am noticing you. This message of thanks or congratulations or sympathy comes not from some staff person or some machine but directly from me.”

Campaign to End Loneliness

Campaign to End Loneliness

The Campaign to End Loneliness is a campaign that seeks to educate, convene, support, and make a case for action in hopes to help everyone suffering from loneliness. They have been the experts in the field loneliness and connection since 2011.

Their definition of loneliness helped me understand loneliness and its effects on elderly and family:

“Loneliness is a subjective, unwelcome feeling or lack or loss of companionship, which happens when there is a mismatch between the quantity and quality of the social relationships that we have, and those that we want.”

Patty David

Patty David is the Vice President of Consumer Insights for AARP, considered the United States’ largest nonprofit, nonpartisan organization that is dedicated to empowering Americans 50 and older to choose how they live as they age.

With research dedicated to grandparents and family, Patty David writes about the elderly experience:

“Technology is an enabler, and grandparents are eager to use it to share in the important moments in their grandchildren’s lives. As tech continues to evolve and grow, it will be important to find ways to help grandparents stay up-to-date and engaged. . . Grandparents like the idea of using technology and social media to connect to their grandchildren, but there is a gap between appeal and usage.”

Susan Abel

Susan Abel

Susan Abel, educator at the School of Psychology and Counseling at the University of Southern Queensland and Graduate Level Research professor writes about the psychology in digital technology use and impact across one’s lifespan.

Her research helped me understand the role of social media in familial relationships:

“Long-distance families perceive that chat minimized intrusions into communication patterns’ time and compensates for global time differences.”

“The balance of maintaining kinship ties, preserving privacy, and managing impressions in a collapsed contact such as Facebook is difficult and requires careful organization and impression management.”

“Frequent communication is linked to increased feeling of intimacy and care and makes time spent apart more tolerable. The repeated and frequent small actions mimic a virtual ‘tap on the shoulder’ reminding the other party the relationship exists and that it is important.”

“Daily greetings via chat accompanied by photographs of the everyday cultivates intimacy.”

Human Experiences Across Distance

Human Experiences Across Distance

Several people from around the United States, all experiencing different levels of long distance family relationships, share what handwritten notes or letters mean to both them and their family.

These quotes gave me a glimpse into a wide range of people’s opinions and feelings towards handwritten notes:

“There’s something permanently charming about getting an envelope in the mail. . . It’s as if somebody gift wrapped their words for you.”
Tove Danovich, Freelance Journalist from Portland

“Because of novelty, what you say—and what it looks like—often matters less than the act itself.”
Tove Danovich, Freelance Journalist from Portland

“This was not some soulless mass production. Someone took the time to spell my name correctly and draw stars and hearts. It’s more personal.”
Justin Hodges, Relocated Employee & Father

“Cards and letters are something to cherish; to set on a desk, to stick to a fridge, to bind into a book for future generations. In the digital age, we are assaulted by a barrage of information—much of it having little or no importance. Yet personal words on paper are often saved in a shoe box, becoming a memory to be revisited through the years.”
Florence Isaacs, Bestselling Author & Ghostwriter

“In Los Angeles, Ronan, age 4, enjoys receiving riddles from his grandmother, my mother who lives in Tucson, Arizona—all by mail. We have to wait for the answer to arrive. That got him excited about the mail in a way he’d only been with packages before.”
Soren Bowie, Dad & Long Distance Family Member

“A letter is one of the most undervalued but important ways of expressing yourself. It doesn't have to be perfect or written with the best grammar and semantics and graceful, beautiful flowery prose.

It just has to be you.”

Brianca Jay, English Teacher at Houston High School

Reflection Quotations

The power of a handwritten letter as a form of communication is so incredible. One's handwriting and way of drawing is part of one's identity, unique to each and every person. Every word that is written or every drawing doodled is truly unique to each person. The scratches, the strokes, the quality of line makes each note special in its own unique way. *The imperfections in the strokes are what makes every note perfect.*

When initially developing this project, I was proposed by an advisor to consider the use of artificial intelligence. Perhaps this artificial intelligence can write notes or draw things for you? This would save people time and effort required to make a note, and could be helpful for those who are too young to write or have messy handwriting. It could send notes for you at certain times, write in beautiful magnificent handwriting, or paint an image like Picasso.

But wait... doesn't this undermine the idea of authenticity and personalization?

The inclusion of artificial intelligence that would complete tasks for one would strip this thesis of its very own theory and ideology. Why would one want to see a machine's handwriting when they could see their grandchild's or grandmothers? Imagine the cursive, loopy handwriting of a grandmother, a handwriting that young children look up to and admire for its mature dreaminess. Imagine the scribbles of a young child, still learning to write, the letters b, d, p, and q becoming mixed up and the shaky hand. Imagine, as a grandparent, watching over the years as your 4 year old's handwriting develops from barely legible scribbles to a young lady's 8 year old handwriting. Imagine seeing the dog they learned how to draw at school using circles that overlap in various ways. Imagine seeing the drawing the passionate young artist makes of her and her grandma. Artificial intelligence has no place in this project, except to perhaps help those who need assistance with accessibility.

It is, in fact, the imperfections and the variation of writing and drawing, between people and over time, that makes something so special.

Sure, this type of communication may take a little more effort and time than a text message, but it means so much more. A lot can be said through handwriting or drawing that goes beyond the image or words on the page. It is the time, effort, and the thought that makes this communication so amazing and *touching to the heart.*

I have found through my primary and secondary research that handwritten letters have dwindled, if not completely disappeared in most families. I strive to bring this important form of communication back. By making the process easier and more efficient, I hope that the intimate family relationships can be rekindled in a way that is a reminder of the past, but with the freshness of the future.

Development



22	Manifesto
24	Initial Sketches
26	Refined Sketches
28	Storyboard
30	Branding
32	Site Map
34	Low Fidelity
36	Mid Fidelity

Manifesto

When designing this project, I wanted to keep several things in mind. It lists the most important design philosophies for myself in order to keep myself on track and efficient.

Don't overthink. Don't overcomplicate.

Often over thinking leads to overcomplication. If its complicated to you, it will be complicated for other. Make wise choices, learn from mistakes, and design with a purpose.

Make something new feel familiar.

Make a new experience feel familiar, inviting the user to make themselves comfortable. Allow something new to have the potential of becoming a daily habit.

Design emotions, not just experiences.

At the core of this project is reconnecting long distance families. This is done through emotional connection. Remember the experience but design the emotion.

Solve user problems, rather than designing what may be the "next cool thing."

Do not overindulge in futuristic technology. We aren't focusing on designing the "next cool thing." We are designing an experience that allows users of all experience levels and ages to reconnect with family using technology.

Understand your user.

Learn from your users and focus on understanding. Ask questions, listen, and let their answers guide you to create a solution.

Understand what your user understands.

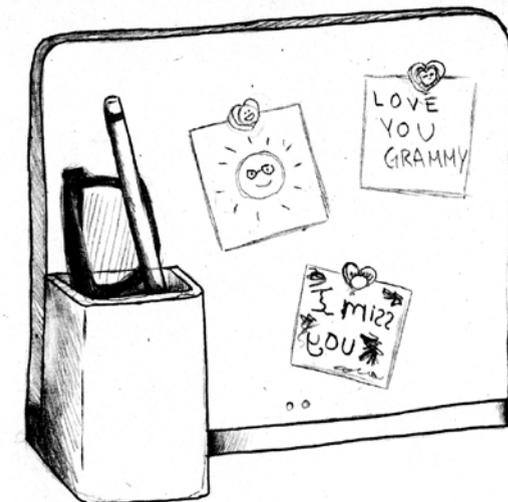
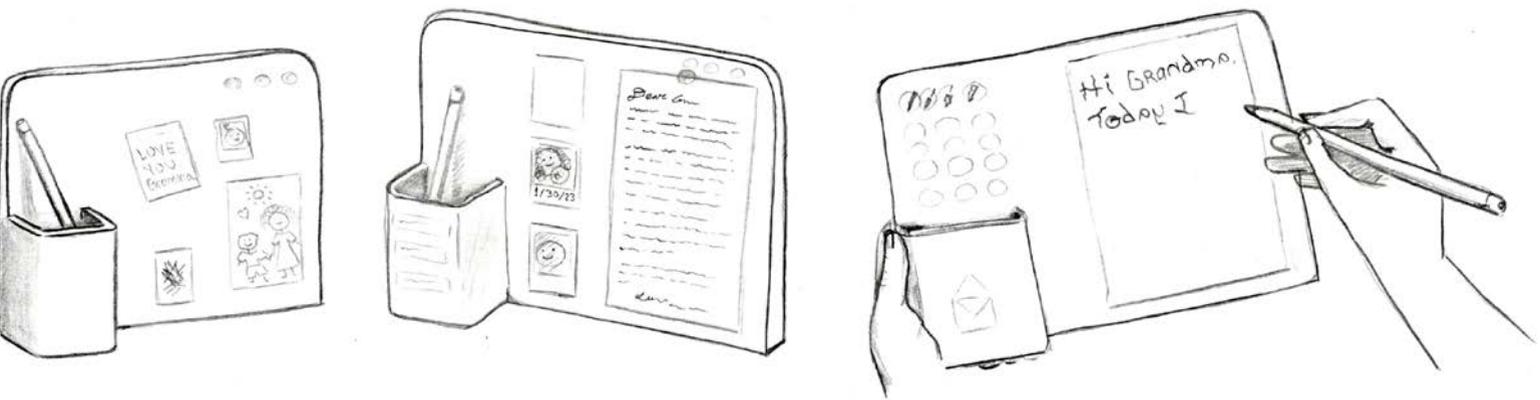
Consider affordance. Understand habits the user is familiar with in order to efficiently design something new that can also become a habit.

Think with empathy.

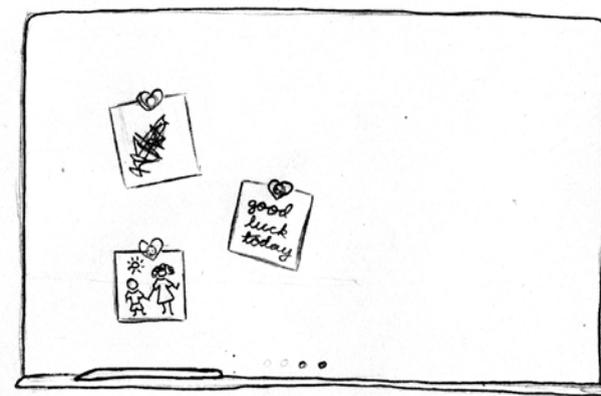
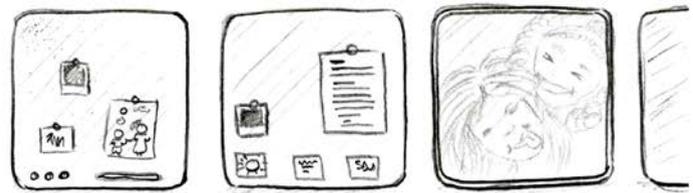
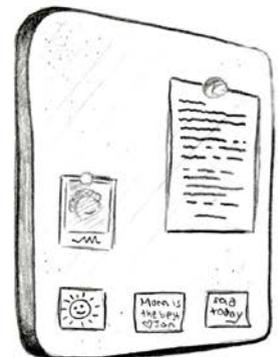
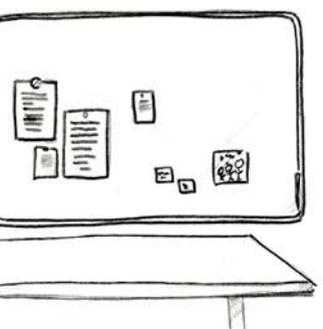
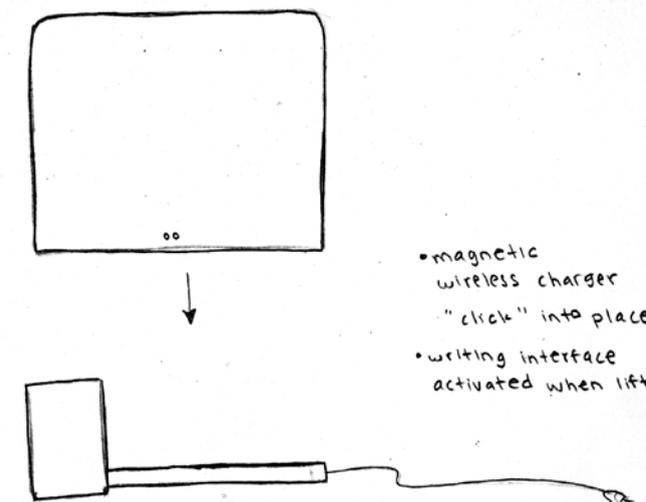
Understand and share the feelings of another. Have compassion and understand their struggles.

Design for connection.

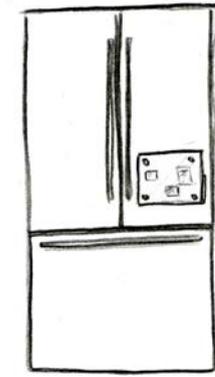
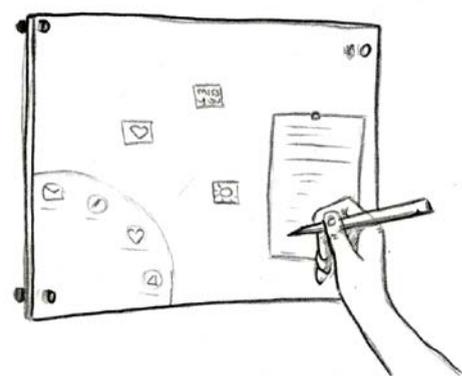
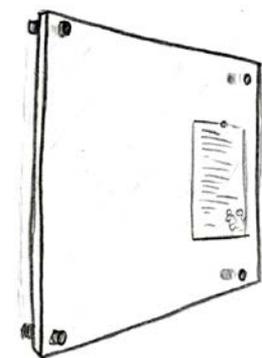
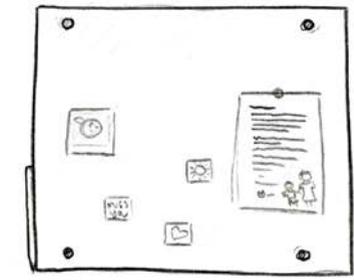
Ultimately, design for connection.



- wireless charging
- detachable
- accessory holder (stylus, glasses)
- customizable



- larger version
- wall hanging
- wireless charging
- customizable
- accessory ledge



Initial Sketches

With the knowledge gathered from my research, I began sketching the *physical* form of the home ware product.

Updated Sketches

Based on the most successful initial sketch, I further *developed* the physical form into two options: handheld and wall hung.

Handheld Tablet & Accessory Cup

A tablet with a built in three-dimensional accessory cup would sit on any surface of the house, showing favorite letters received from family members.

Challenge: The accessory cup makes the overall design a little bulky, a poses a challenge for those who are left handed.

Digital Cork Board & Widget Wall

A series of wall widgets, featuring handwritten notes from family members, large family photo frames, and a family calendar will be displayed on the wall.

Challenge: Too much information is overwhelming for the user. Physical accessibility is also an issue, as many will struggle to write at a 90° angle.

Acrylic Transparent Tablet

A transparent screen will allow users to customize the background of the device depending on the surface it is hung on for ultimate customizability.

Challenge: The transparency of the product may become confusing for the user. The form may also become sharp and fragile for the youth and elderly.

Handheld Tablet with Wireless Charging

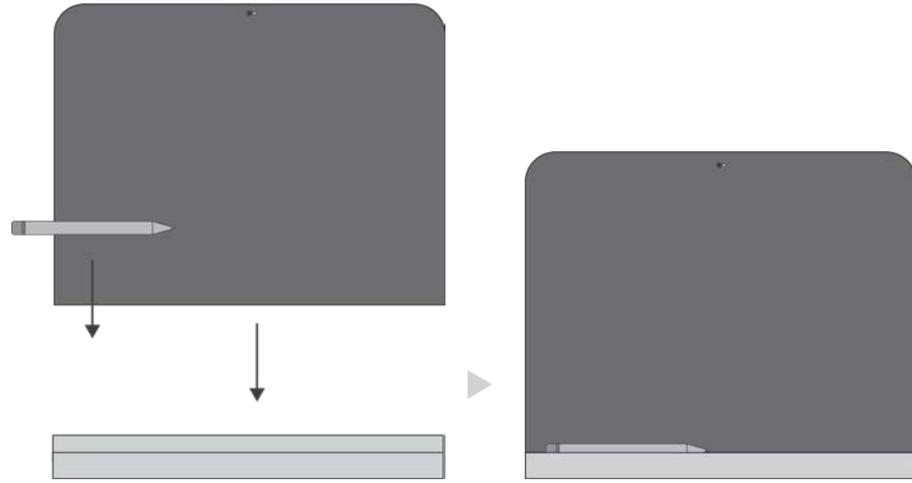
A tablet and a wireless charging tray and built in three-dimensional accessory cup that could sit on any surface of the house, showing favorite letters received from family members.

Large Scale Wall Hung Device

A large touch screen on the wall that would allow users to write short quick notes in the moment. This device would stay on the wall and is not removable.

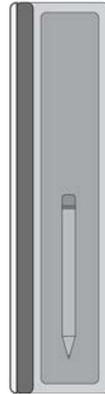
Refined Sketches

The prior experimentations lead to a more *refined idea*. As a home ware item Dear, sits on any surface in the home or can be attached to a magnetic surface, such as the refrigerator, as the entire back of the unit is magnetic. The tray serves as both a stand, an accessory holder, and a wireless charger for both the tablet and the stylus.



The compact design allows the product to easily fit into any home, whether it is on one's bedside table or on magnetically attach to the refrigerator in the kitchen.

The stylus will charge and stay safe in the charging tray, where other accessory can also be stored, like reading glasses or other items.

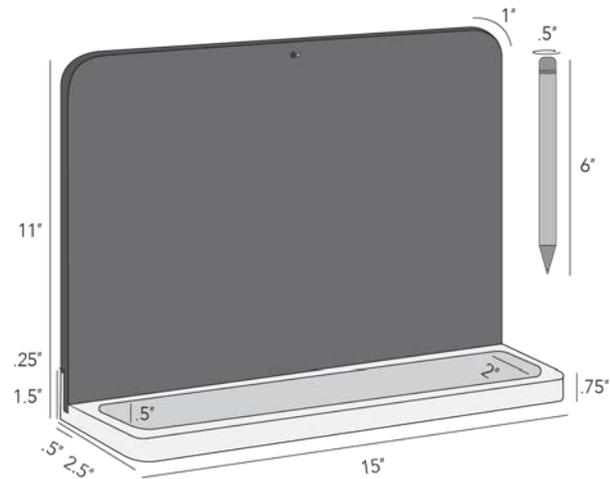


While being sleek, the design is also very stable, featuring a magnetic wireless charging "click" that secures the tablet to the charging tray.

The shape of the back of the tablet allows it to fit securely to the charging tray, like two puzzle pieces.



With the dimensions large enough to easy display all of one's notes, it is also very accessible and light, easy to hold for users of many sizes, different ages, and abilities.



The product will bring our families back into our homes, no matter the distance, in a caring, space efficient way.

It is easily worked into family's daily routines. Often placed in either the kitchen or bedroom, it reminds family members of one another through highly personalized and authentic handwritten letters and in the moment photos and selfies.

Storyboard

With the physical design of the product coming together, I began creating a storyboard about the way in which the product helps an emotional relationship between a grandmother and granddaughter thrive, despite the physical distance.

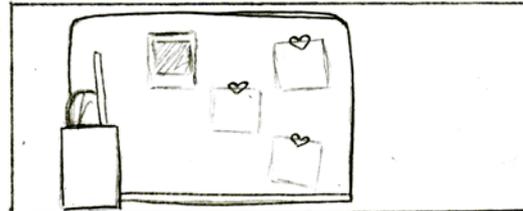
This story is about *Grammy*, a grandma living in Europe, and *Dotty*, a young granddaughter living in the United States.



Grammy rested in bed, the sunlight gently coming through the window.



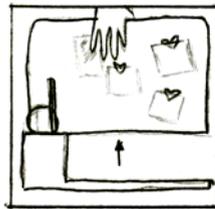
she peeked an eye open and glanced towards Fam Gram, as she did every morning.



she saw she had new Grams to look at, specifically a note from Dotty caught her eye.



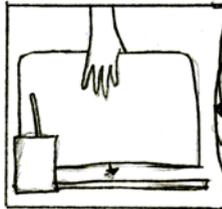
she felt excited and had a warm fuzzy feeling inside.



She grabbed the Fam Gram board.



She sat up in bed as she carefully writes notes and doodles back to her grandchildren.



She returned the board to the dock.



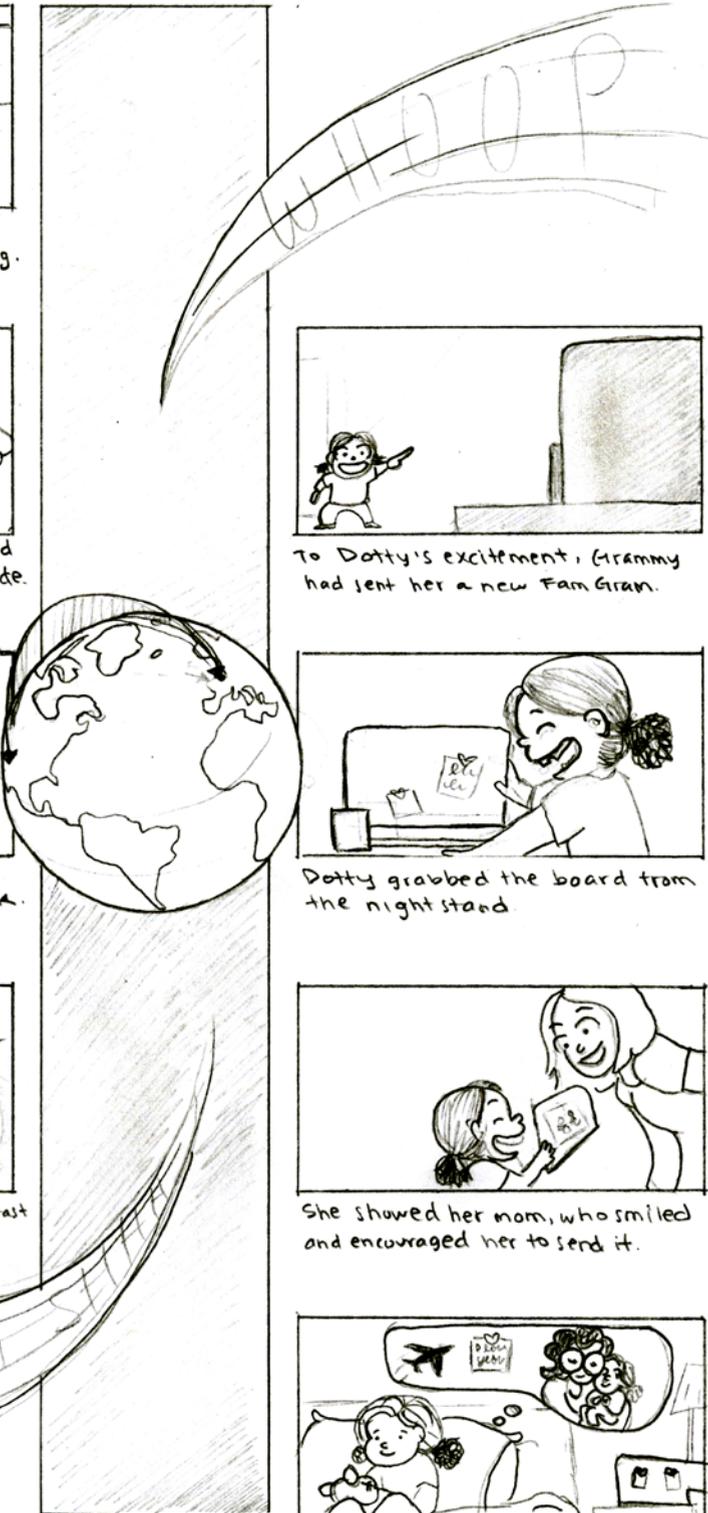
She got up, got dressed, and made her morning tea.



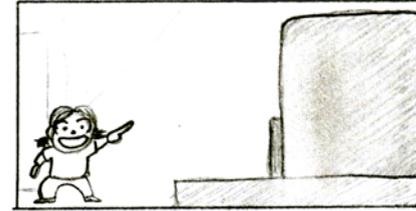
Sitting at the dining room table with her breakfast and tea, she felt happy, loved, and remembered, despite the physical distance from her family.



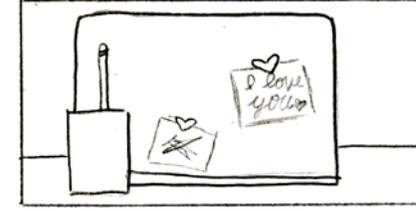
she thought about the last warm cuddle she had with Dotty.



Dotty and her mom entered Dotty's room, starting her evening routine.



To Dotty's excitement, Grammy had sent her a new Fam Gram.



It read "I love you" in Grammy's fancy twirly handwriting.



Dotty grabbed the board from the nightstand.



she took a seat and drew as best as she could for Grammy to see when she went to bed.



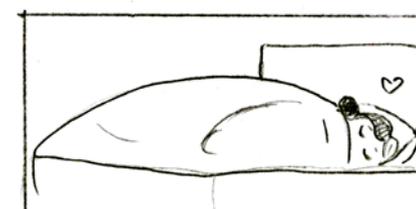
She showed her mom, who smiled and encouraged her to send it.



She returned the board to her nightstand and crawled into bed.



she thought about Grammy's note and the last time they were together.



she drifted to sleep with sweet dreams and feeling loved.

Taking this step helped guide me as I designed the user story, experience, and interface, ultimately imagining how this product will *improve* people's lives.

Brand Development

Branding Development

As I began the branding development process, I explored a variety of names and taglines. The top two names were "Dear," and "FamGram," in which I decided to develop further.

Names

Dear,
FamGram

Other Names

Dear, ly
Love,
Heartfelt
Posted
Scribble
Forever Yours

Taglines

Family at your fingertips.
It's the little things.
Post your love.
Far apart but close at heart.
Apart & Close at Heart.

Colors



Textures



Phase 1



Phase 2



Phase 3



Through this exploration, I fell in love with the brand name "Dear," as it communicated a sense of *tradition* and *caring*. While the word "Dear" is typically used at the beginning of a note or letter, it is also often used a nickname used between two people who love and care about each other.

These two logos became the basis for the logo development moving forward. The letter "D" encompasses a half a heart with a comma completing it, communicating the way in which taking *small pauses or moments* in our lives to remind family we love them is what keeps an emotional connection thriving.

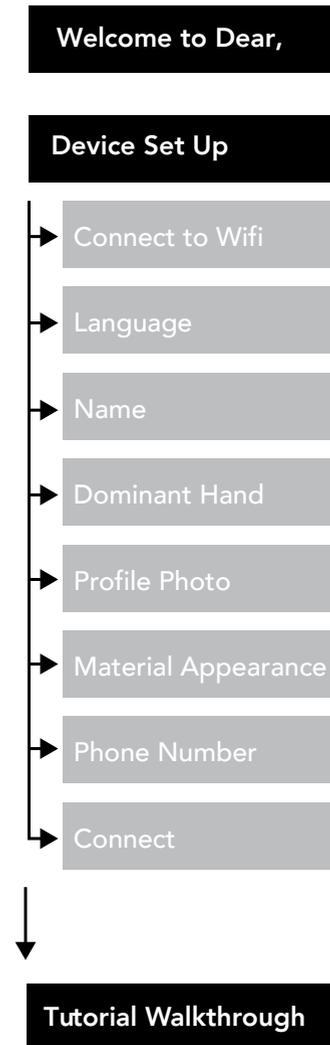
Moving forward, I strived to work on the careful integration of typography and logomark into one complete logo.

Site Map

Upon designing the site map of the user interface and experience, I explored options and developed both the *primary* and *secondary* functions of Dear,.

Creating a user flows for both New Users and Returning Users allowed me to get a broad of idea of the interface screens I would soon be designing and developing.

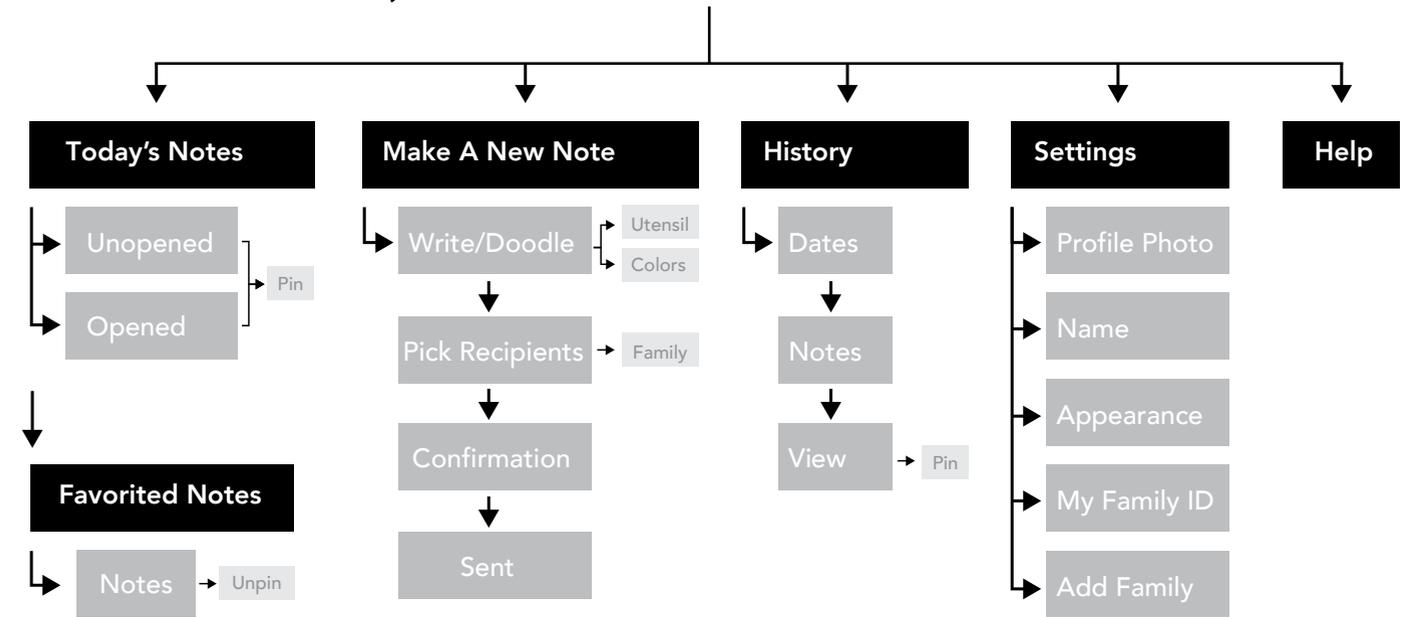
New User



Returning User

Dear,

Far Apart, but Close at Heart.



Low Fidelity Screens

With a clearer vision of the overall layout of Dear, I began developing the first round of *low fidelity* interface screen wireframes.

I explored the idea of the background of the screen changing within different functions of the interface, particularly within the making a new note feature. Keeping in mind the idea of affordances I learned through my research, I thought that the transition of the metal texture of the main interface to the wooden texture—resembling a wooden table or desk—of the “New” note interface would lend itself well to the target audience.

First Round of User Testing

Utilizing this very simple, initial version of the interface, I thought it was important to have a quick round of user testing with a group of 7 people to determine if I was heading in the right direction and determine the successful and not so successful parts of the initial interface. Not only did I listen to their feedback, but I also watched them pretend to interact with the current state of the buttons.

The Menu present on the main screen, while a typical format, was not functional for the purposes of accessibility. The rotation of the thumb or wrist was unnatural and a difficult movement for some to make. Those with arthritis or other mobility issues would find this circular approach too difficult.

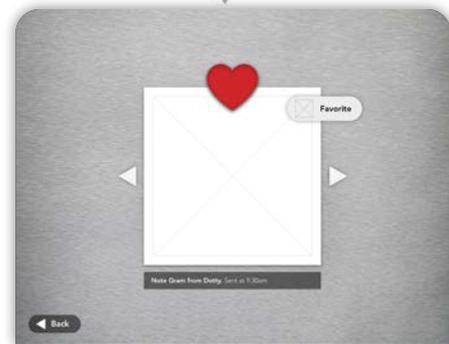
The number of choices offered at once caused some people to feel overwhelmed, and was deemed unnecessary, particularly in the note creation stage of the interaction. This reminded me of my interview with Professor Yoon, in which she reminded me that while freedom and flexibility can be nice, too many options can make users feel nervous or confused.

I learned a lot of valuable feedback that assisted me in moving forward with the design.

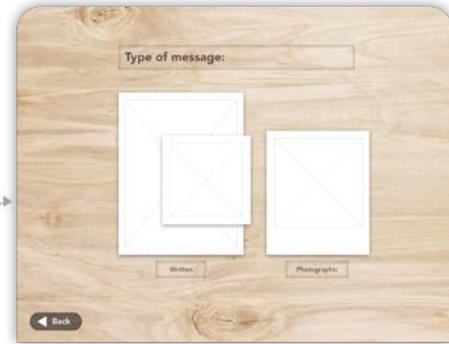
low fidelity



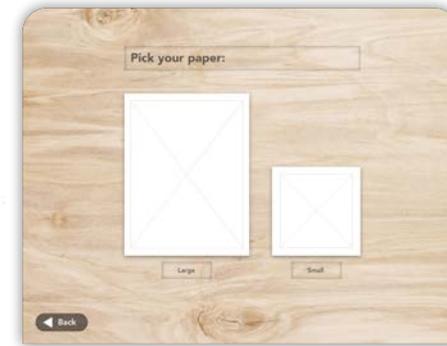
Home



View Note



Type of Message



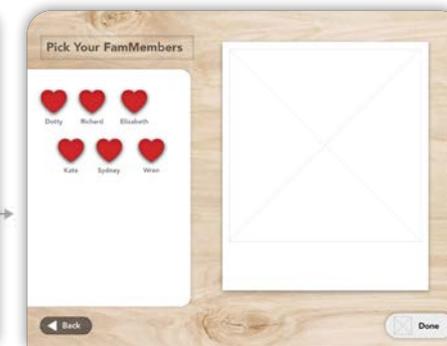
Paper Type



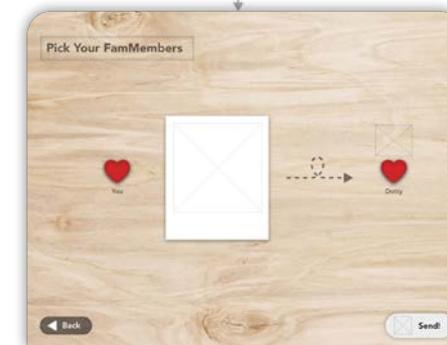
Write Note



Photographic



Recipients



Recipient and Note Confirmation



Note Sent Confirmation



History

Elderly & Accessibility in UI

As I began designing the interface screens, I took a moment to research accessibility in UI, especially as it pertains to the elderly. I wanted to ensure the elderly would feel very *comfortable* using Dear.

Preferred button sizes, the best font sizes and types, as well as color contrast was investigated to ensure I was developing an accessible interface.

Button Sizes



Big (60 px tall)



Small (44x44 px)

Font Sizes

Avenir black, heavy, medium.

Large 30px

Medium 20px

Smallest 16px

Mid Fidelity Wire Frames

With the feedback I received, I continued to develop the interface screens, leading to *Mid Fidelity* quality.

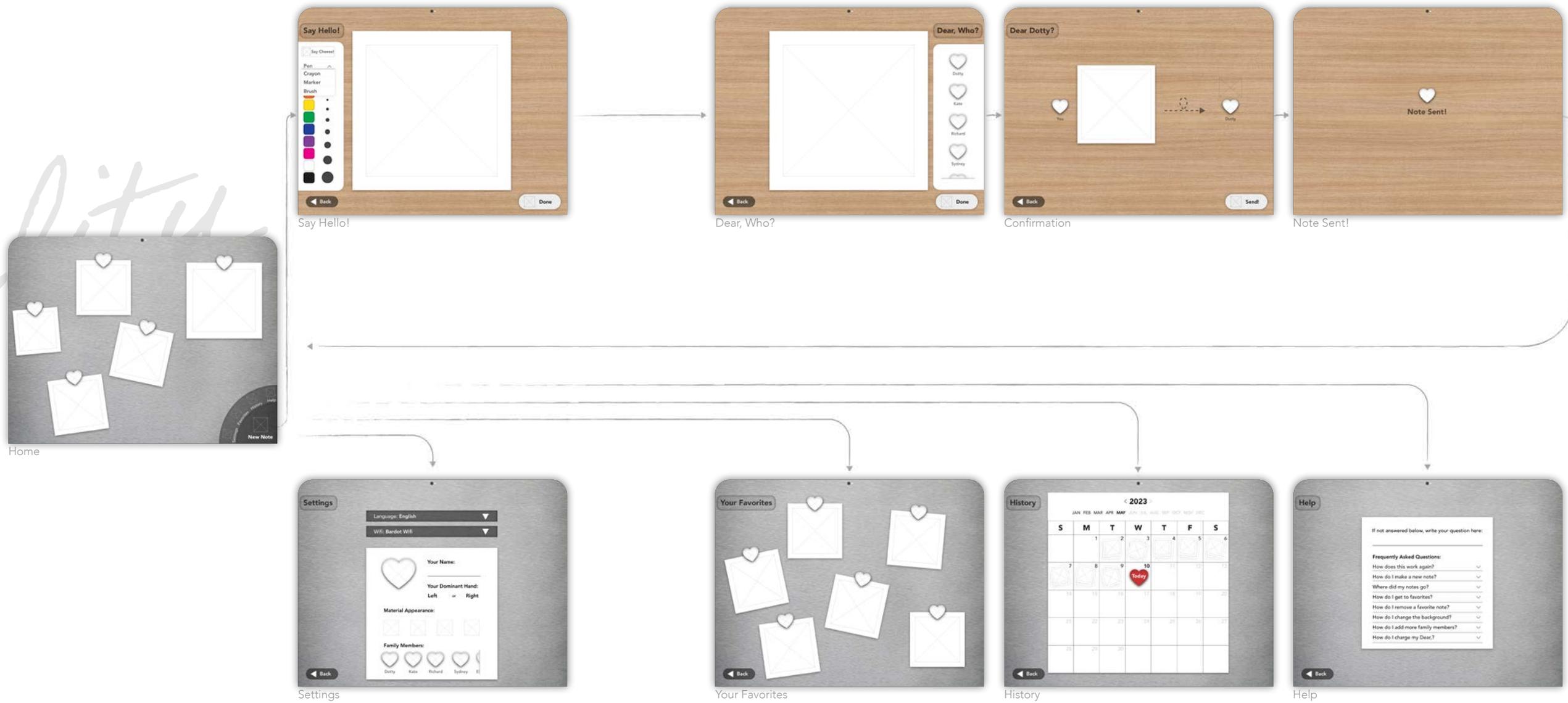
The Menu was redesigned for a 90 degree rotation of the thumb or wrist, a *natural* rotation degree for the human body.

The entire process of writing a new note was compressed, removing any unnecessary screens and reducing the number of choices the user will need to make before getting to the main interaction of making their note.

Other functions of Dear, were developed, focusing on simplicity and *accessibility*.

Second Round of User Testing

The second round of user testing, made up of a group of about 23 people, proved to be very successful. The only point of tension I needed to address moving forward was the palette. The choices of utensils was unclear and the line weights were confusing for users. A more natural way of going about this needed to be explored.



Palette Iterations

Addressing the *palette* issues, I created many iterations which were then shared with some designers and members of the target audience. Given the natural rotation of the arm, visual metaphor of a palette, and the way in which it lends itself well to the brand, the last palette was the most successful.

Third Round of User Testing

With everything implemented, the final round of user testing, made up of 28 people, was very successful, many wondering when this device was going to be released.



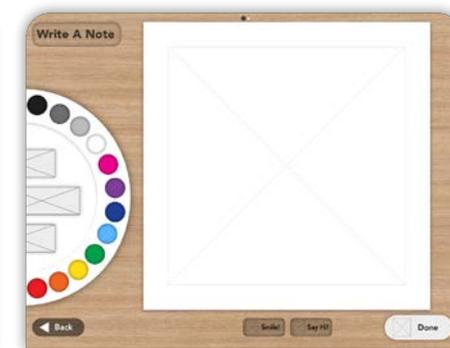
Option 1
The palette is long and the full scale of the utensil is displayed on the screen.



Option 2
Only part of the utensil is shown, still to scale, but cropped off of the side of the screen.



Option 3
Utilizing the visual metaphor of a utensil drawer, the utensils are partially cropped off the screen.



Option 4
Utilizing the visual metaphor of a round palette, the palette and utensils are cropped off the screen.



Option 5
Utilizing the visual metaphor of a round palette, the scale was reduced and more utensil options offered.

Dear,



40	Branding
42	Physical Design
44	UI & UX Design

Dear, Branding

The overall branding captures a sense of *elegance and old style*, drawing on the tradition of letter writing and the modernity of future technology.

Dear,

Far Apart, But Close at *Heart*

Logo

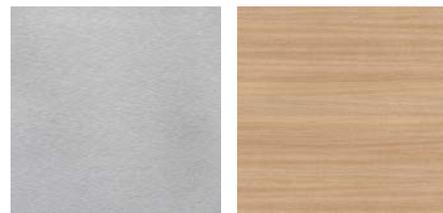
A combination of elegance and old style serif communicates a sense of tradition and modernity. Within the letter D, a comma helps complete a heart while also serving as the counter of the letter.

A combination of Bodoni and Jeanne Moderno OT, the typeface was slightly adjusted for a personalized touch.

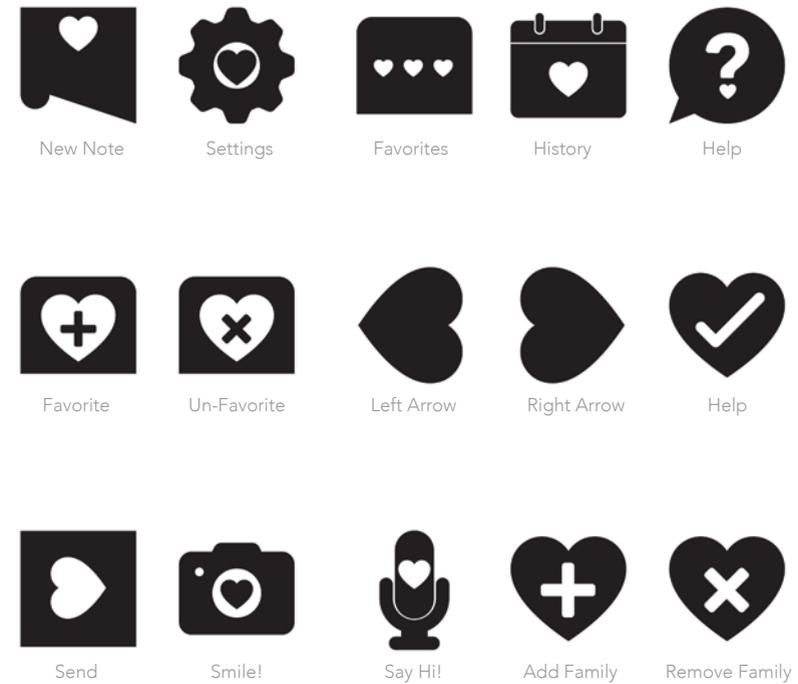
Dear,

Textures

Throughout the branding, textures are used within the background of interface screens to communicate a transition usually experienced in 3D space, within 2D space.



Icons



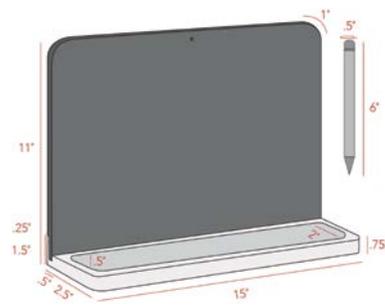
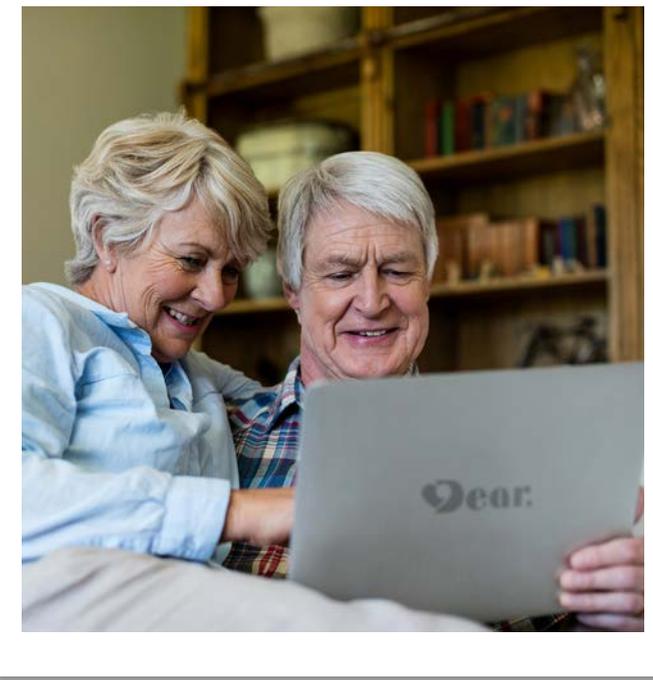
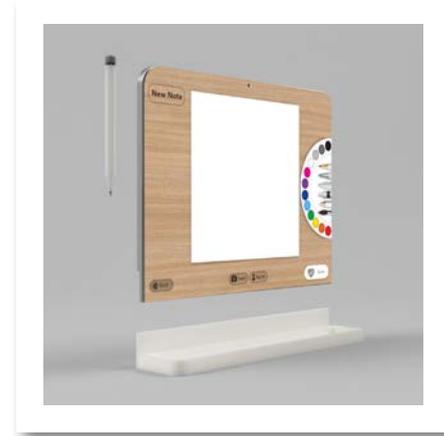
Utensils



Physical Design

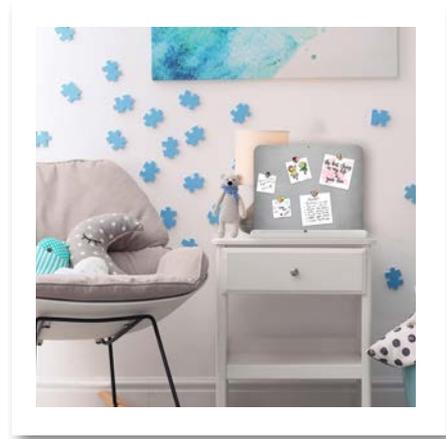
Physical Design

The physical form is designed with *ergonomics, comfort, accessibility,* and affordance into careful consideration.



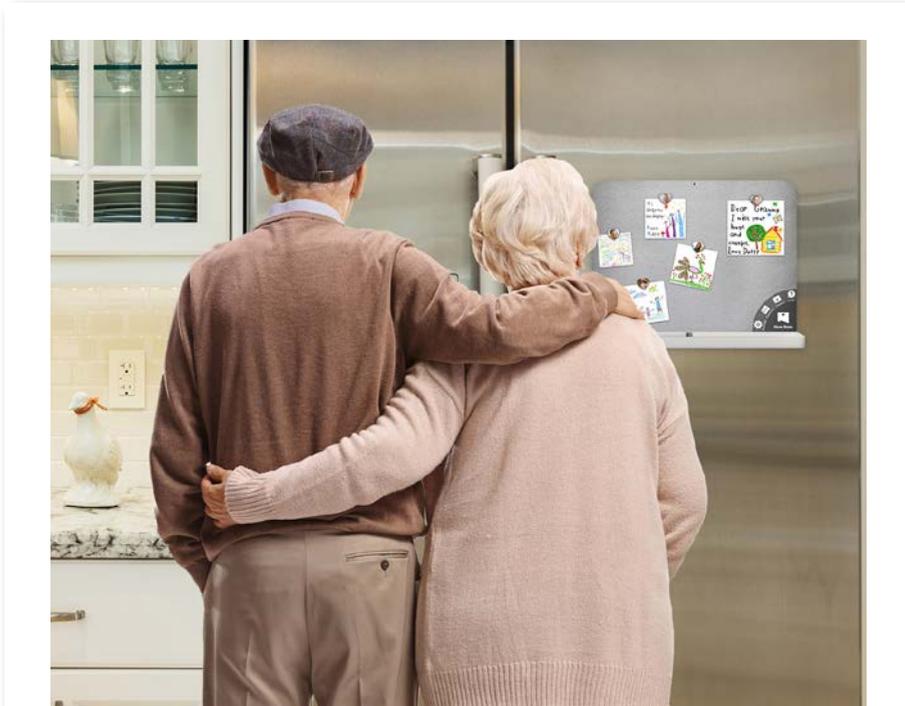
As a complete unit Dear, is 11 inches tall, 2.5 inches wide, and 15 inches in length. While in the tray, the tablet is being charged, allowing the tablet's screen to always be on, always displaying Today's Notes.

The stylus and any other necessary accessories, such as reading glasses, can be stored on the tray for easy accessibility and handiness.



As a home ware item Dear, sits on any surface in the home or can be attached to a magnetic surface, such as the refrigerator, as the back of the unit is magnetic.

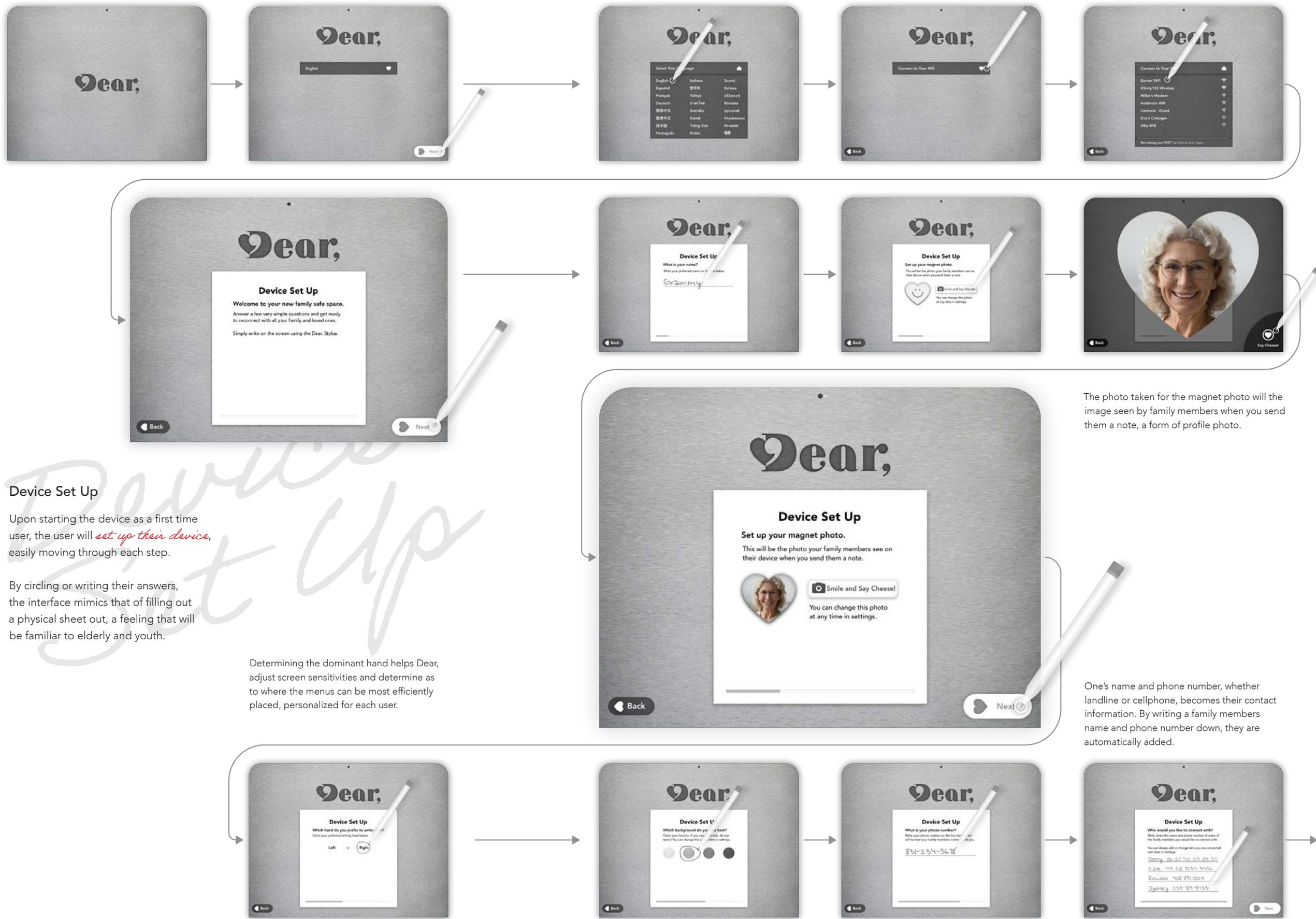
The *main screen*, showing Today's Notes, will *always remain viewable* at any time, even if the device is inactive. This allows users to be easily reminded of their familial love at any time.



UI & UX Design

With a focus on accessibility, simplicity, and affordances, user flows have been designed to create a *unique user experience* that can be enjoyed by anyone with any level of familiarity with technology.

An example situation has been created featuring a grandmother, named Grammy, interacting with her grandchildren.



Device Set Up

Upon starting the device as a first time user, the user will *set up their device*, easily moving through each step.

By circling or writing their answers, the interface mimics that of filling out a physical sheet out, a feeling that will be familiar to elderly and youth.

Determining the dominant hand helps Dear, adjust screen sensitivities and determine as to where the menus can be most efficiently placed, personalized for each user.

The photo taken for the magnet photo will be the image seen by family members when you send them a note, a form of profile photo.

One's name and phone number, whether landline or cellphone, becomes their contact information. By writing a family members name and phone number down, they are automatically added.



Walkthrough

After set up, users will then be prompted to begin the *Walkthrough*. If it is desired, they will be presented to the main features of Dear, as a way to gently introduce them to the concept. Should a user want to skip the Walkthrough, they will be sent directly to Today's Notes.



Once the walkthrough is completed, users can easily access it again in Help should they need any reminders in the future.



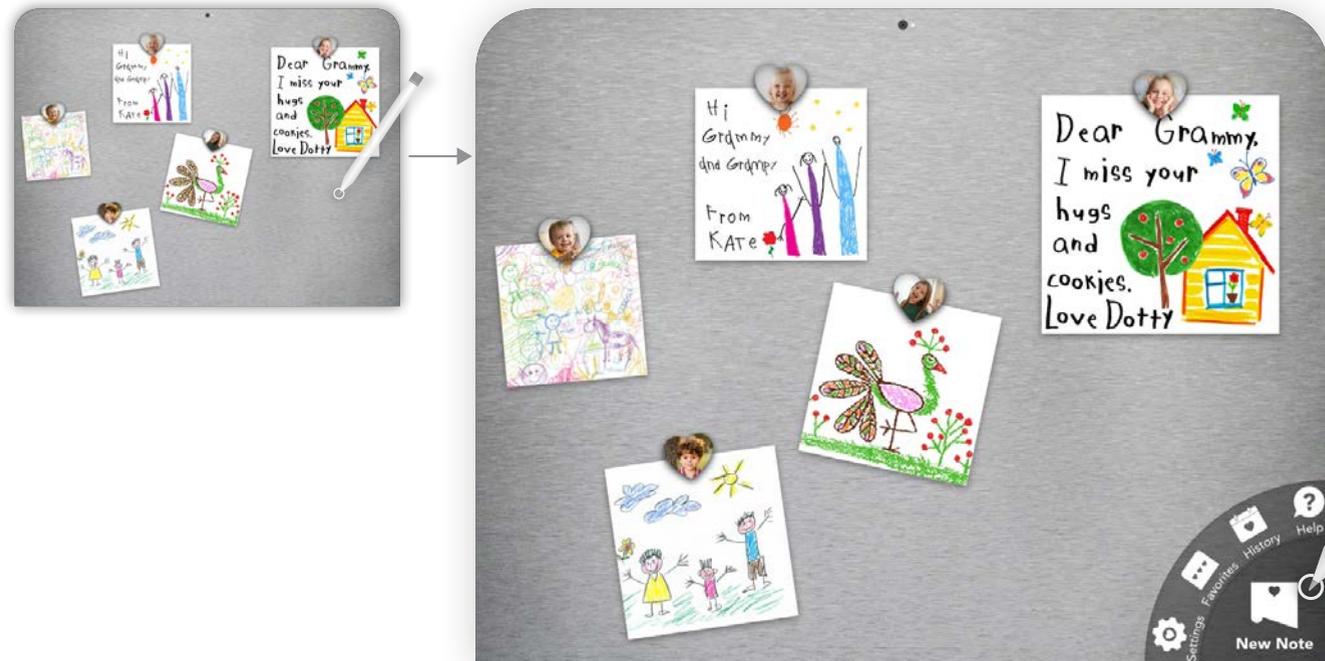
First Time User

After the Walkthrough, as a first time user, Today's Notes will have a note from the creator of Dear, that welcomes them. By tapping on the note with their finger or the stylus, they can see the note on a larger scale. As time passes, their device will fill up with notes from family.

Today's Notes & View Note

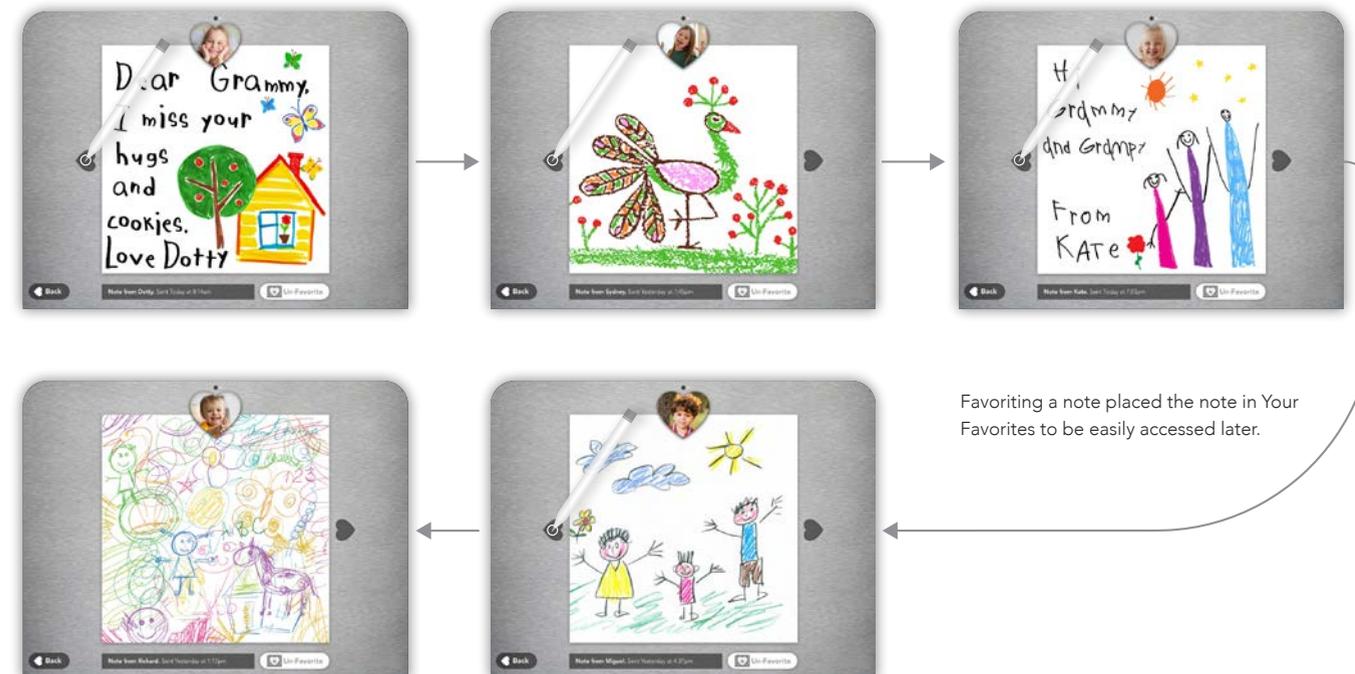
As a returning user, the main screen will have *all the notes received* that day. By tapping on the screen, the menu will appear, the side determined by the user's dominant hand. In this scenario, Grammy is right handed, so the menu is on the right. This applies to all menus in Dear.

Those notes received most recently will appear the *largest*, while those received earlier will appear *smaller*. Determined by AI, the note sizes will adjust so that all notes received can be viewed at any time on Today's Notes.



By tapping on the note with their finger or the stylus, they can see the note on a larger scale.

Use the arrows to easily rotate between all of the notes received



Favoriting a note placed the note in Your Favorites to be easily accessed later.

Each note will remain on the screen for *24 hours* after that particular note was received, at which point the note will be placed in History to be visited later.



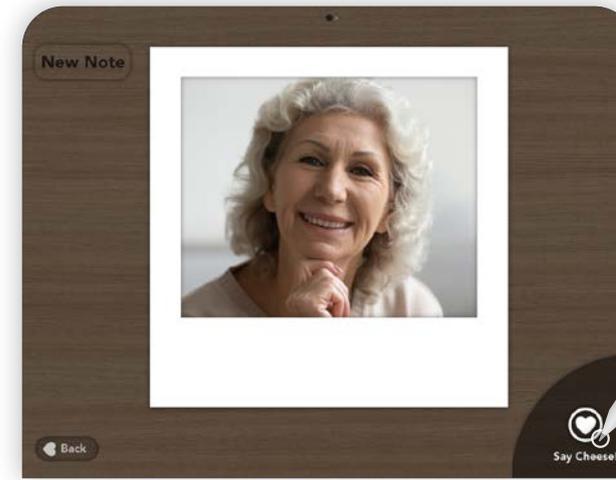
New Note

Writing a new note to a family member is simple. This is where the personalized communication content creation takes place. With a selection of writing utensils and colors, a *personalized* message can be easily made.

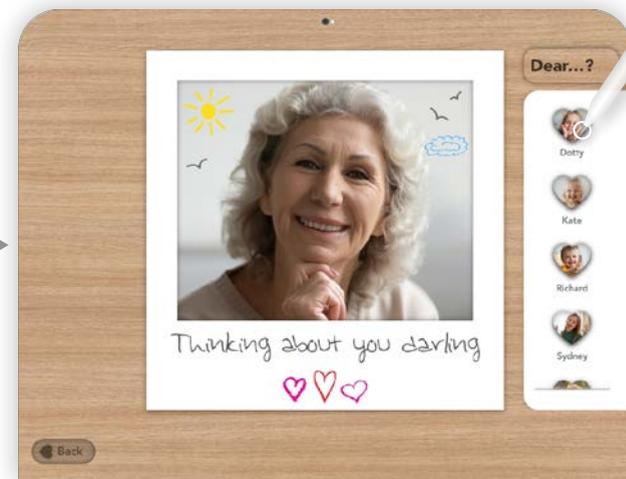
To write a note to a family member, simply tap "New Note" in the menu.

An empty note and the palette provides the user with plenty of space to write their personalized note to their family member.

"Say Hi!" is an accessibility feature that allows any users with physical limitations or accessibility needs to utilize AI to write a note for them.



Should the user want to take a photo, as Grammy does, simply tap "Smile!" and take a photo. The photo will be placed in the note, at which point notes and drawings can be created too.



Once the user is done making their note, they tap "Done," at which point the recipient can be selected by tapping their magnet.



Before sending the note Dear, confirms the contents of the message and the recipient. If everything looks correct, tap "Send" to deliver the note. A confirmation will confirm that the note has sent. After a few seconds, the user is returned to Home.

Once the note is sent, the user can then decide to continue interacting with Dear, or simply go about their day.

New Note



Your Favorites

Your Favorites is where favorited notes are displayed. This allows users to easily visit their favorite previously received notes whenever they need to be reminded of their familial love.



History

History takes the form of calendar, where users can revisit notes received at any time since they began using Dear.

By tapping a date, the notes received on that day will be displayed and the user can scroll through to warm their hearts.



Help

Dear, allows users to explore Frequently Asked Questions, write their question to get assistance from AI, or call for assistance at a 24-hour help line.



Settings

Settings allows users to adjust their device to their preferences.



Conclusion

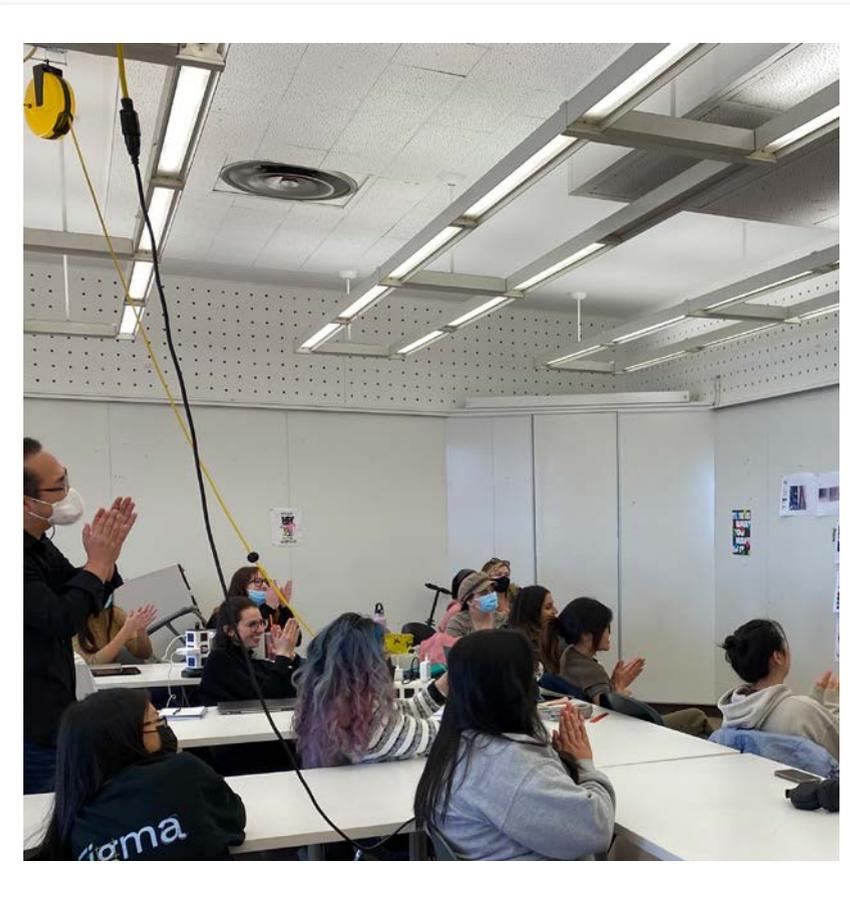
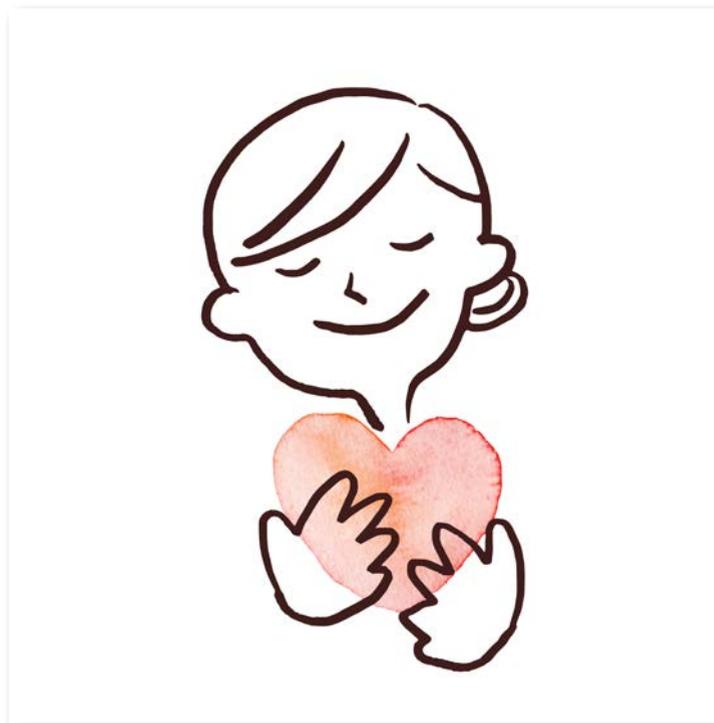
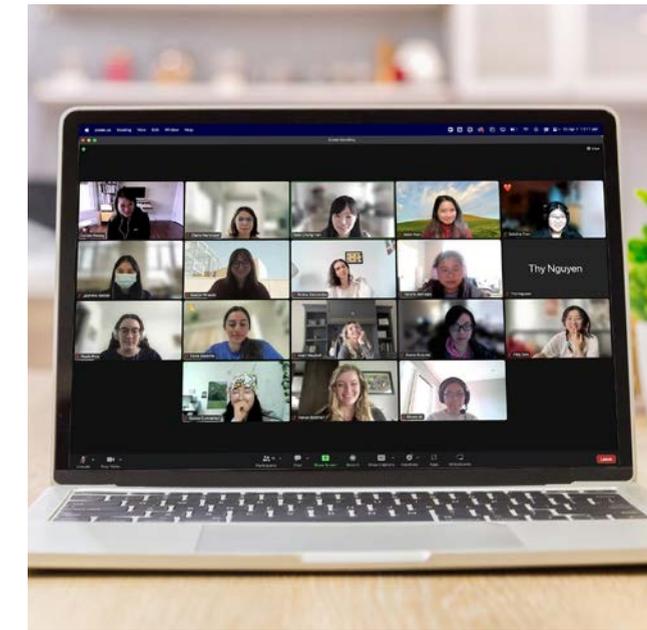
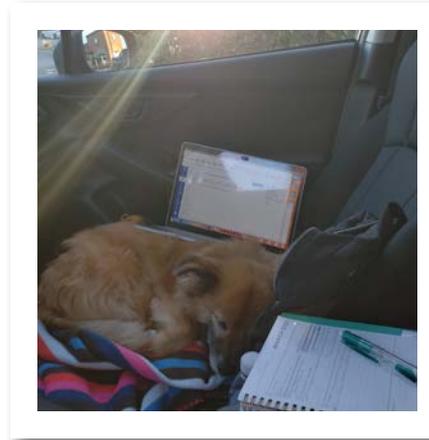


56	Reflection
57	Acknowledgments
58	Bibliography
59	Colophon

Reflection

As my third and final user testing session came to a close, I was overwhelmed with positive feedback, many asking "When will this be released?" or "When will we be able to buy this?" The positive feedback *warmed my heart*, and although I had to remind them this is my Senior Thesis project, I also look forward to the *possibilities* this project could potentially hold in the future.

Should this project move forward in the future, I think it could benefit from being placed in a development software, at which point the interface could be even more fully fleshed out so that even more interactivity can be user tested.



Acknowledgments

The success to this project is all thanks to the *many people* who have supported me along the way.

Thanks to *Connie Hwang, Chang Sik Kim, Yoon Chung Han, and Randall Sexton*, for their guidance throughout this project and the BFA Graphic Design program.

Thank you to the many people that were patient enough to be a part of my user testing groups and those families who allowed me to visit their homes and learn more about their experiences.

Thank you to my *Mom* for being so supportive of me, reminding me to sleep and eat, and for encouraging me to pursue something I am truly passionate about.

Thank you to *my dog, Lion*, whose soft kisses and reminders to get take a break, get some fresh air, and take a walk were very helpful.

Thank you to the *BFA Class of 2023*. Your support has meant so much to me and I am honored to be a part of such an amazing class.

Annotated Bibliography

Thanks to these wonderful, educational sources, who helped me through the development of this project and further my understanding of the entire experience.

Abel, Susan. "Social Media, Rituals, and Long-Distance Family Relationship Maintenance: A Mixed-Methods Systematic Review." University of Southern Queensland (September 2020). <https://doi.org/10.1177/1461444820958717>.

With social media quickly becoming the main or only source of communication amongst family members, Abel explains the many issues while also reviewing the benefits of mainstream, popular social media.

The issue of "context collapse" is becoming evermore relevant, resulting in very impersonal and overly filtered communication, in which co-workers, bosses, close friends, acquaintances, and family members are all receiving the same surface level communication. People modify their tone and self-presentation when communicating with people from different groups in their lives.

Long distance families are developing highly individualized patterned routines designed to work over social media. The routine may be as simple as a daily wakeup call or text message, yet the repetitive nature of the act provides meaning and value for the relationship. These daily activities cultivate intimacy and positive affect. Social media has led to a form of "connected presence," in which individuals make shorter, more frequent, and less formal communicative gestures. The gestures fulfill a phatic function, in that the act of communicating is more important than what is actually said.

Campaign to End Loneliness. "The Facts on Loneliness." Campaign to End Loneliness (February 2023) What Works Centre for Wellbeing. <https://www.campaigntoendloneliness.org/facts-and-statistics/>.

As a campaign specifically designed to end loneliness, the campaign contained an abundance of information on the real experience of people around the world and their loneliness. By conducting surveys, the campaign was able to create a fact sheet to help educate about the experiences and effects of loneliness.

Loneliness is seen by many as one of the largest health concerns we face. A survey by Action for Children found that 43% of 17–25 year olds who used their service had experienced problems with loneliness, and that of this same group less than half said they felt love. The number of over-50s experiencing loneliness is set to reach 2 million by 2026. This compares to 1.4 million in 2016—a 49% increase in 10 years. Half of a million older people go at least five or six days without seeing or speaking to anyone at all. Over half (59%) of those aged 85 and over and 38% of those aged 75 to 84 years of age live alone. Two-fifths of all older people (about 3.9 million) say the television is their main or only source of company in their daily lives.

David, Patty. "Tech and the Modern Grandparent." AARP Journal of Research (April 2019). <https://doi.org/10.26419/res.00289.016>

AARP Journal of Research conducts research about the experience of elderly. In this specific edition, they reviewed a new study on the modern grandparent, highlighting the importance of technology in the lives of grandparents and their grandchildren.

Over half of grandparents (52%) have at least one grandchild who lives 200 or more miles away, and about a third (29%) live over 50 miles from their closest grandchild. In order to stay connected, grandparents have learned to embrace technology, influencing how they communicate with their family members.

Commitment to technology and interest may be high but keeping up in this ever-evolving space is a challenge. About half (46%) of grandparents claim to connect most often with their grandchildren via the telephone, while only 5% send mail. About 72% of grandparents own a smartphone. About 75% of grandparents have one type of social media, but only use it once a week or less, meaning they may not be able to keep up in their family's lives. With the number of phone calls of decreasing, the reliance on Facebook is increasing, which is not considered a personal form of communication with a family member.

David, Patty. "Grandparents Embrace Changing Attitudes and Technology." AARP Journal of Research (April 2019). <https://doi.org/10.26419/res.00289.001>.

While digital literacy may be limited, many grandparents are developing a growing appreciation for technology, especially in regards to connecting them with their family members, near and far.

Distance is the biggest barrier preventing grandparents from having a close connection with their grandchildren, with about 69% claiming that distance has emotionally separated their family. With grandparents still in the workforce today (40%), their busy schedules as well as the schedules of their children and grandchildren create the second largest barrier to spending time with their grandchildren and family members.

Many grandparents feel it is vital to connect with their grandchildren because it gives them a mental and emotional boost. Many grandparents (47%) like the idea of messaging with family members but wish there were more ways to do it that are more personalized and familiar to them. Grandparents often seek out new information about how to actively engage with their grandchildren because they want to remain an important part of their grandchildren's lives. Grandparents believe that the more emotional support grandparents and grandchildren give each other, the happier and healthier they will all be.

Wiggins, Doug. "COVID Mail Attitudes." USPS Market Research & Insights (April 2020). <https://postalpro.usps.com/market-research/covid-mail-attitudes>.

USPS Market Research and Insights reveals that people feel more connected through handwritten letters than other impersonal forms of written communication. Respondents feel they can feel more connected to people through mail. About 62% of respondents claimed receiving a letter in the mail makes them feel more connected, especially during social distancing. The same rhetoric can be applied to long distance relationships. About 61% of respondents claimed mailing and receiving letters from family and friends is extra special compared to other forms of communication. About 60% of respondents claimed it means more to receive a card or letter than a digital email. About 55% of respondents claimed to feel less isolated when receiving a letter in the mail.

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