



Technology for Mental Health:
Grief and Loss

**A2: POVs, HMWs, and
Experience Prototypes**

Meet the team!



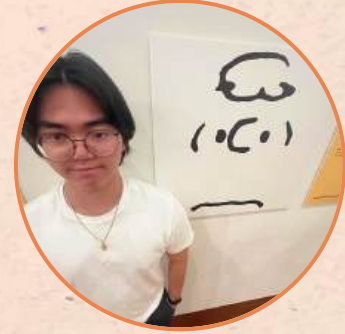
Felicia Yan
Sophomore
CS (HCI)



Sunny Yu
Junior
SymSys (CogSci)



Myan Ngo
Junior
CS (HCI)

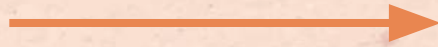


Thu Le
Junior
CS (HCI)

Focusing our problem domain

Original

**Managing
stress and
emotional
wellbeing**



Focused

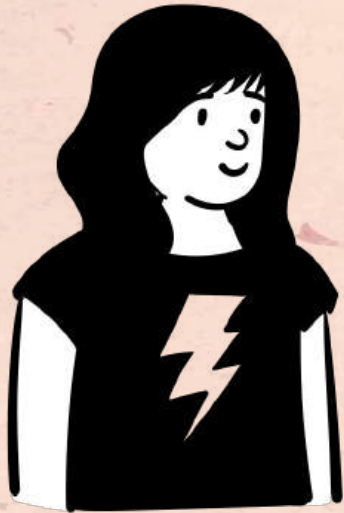
**Grief and
loss among
immigrant
adults**



01

Additional Needfinding

Interview 1: “Sophia”



Background:

- EMT in her late 20s
- First-generation immigrant from the Philippines
- Grew up in poverty in a “broken family,” raised by a single mother after father died when she was a child
- Faced many losses of loved ones throughout her life (murder, accident, moving away)

Interview Setup:

- In-person at Town and Country
- 45 minutes
- Sunny + Felicia interviewing, Sunny taking notes



"Other people my age aren't suffering like this"

"I used to feel like I was the only one"

Conflicted about the death of her abusive dad, if it was a good thing or not

Sharing her story can inspire other people

Says

Thinks



Does

Feels

Jokes about her trauma

Whispers when talking about her experience with loss

Desperate to find community in the US

Feels sad seeing happy families during holidays like Christmas

Key insights

1

Sophia felt **very alone in her experience** despite knowing that loss was very common

2

Sophia **uses humor to heal**, making difficult topics easier to talk about and giving her control over emotions

3

Loss for immigrants is amplified by the **unique challenges of migration** (e.g. lack of community, distance from home)

Interview 2: “Alan”



Background:

- Vietnamese young adult in his early 20s
- First generation immigrant, moved to the states when he was 5
- Mother was killed during a mugging when he was 16
 - Was a witness
 - Had to juggle school, newfound home responsibilities, and news outlets reaching out to him
- Deals with depression, PTSD, anxiety from incident
- Got help through a nonprofit organization that helps with LI people going through mental health crisis

Interview Setup:

- Over a Zoom call
- 50 minutes
- Myan interviewing, Thu taking notes



Says

"It's kind of crazy to expect a teen to know what their resources are"

"As a teen, I wished that someone talked to me about my positions and defended me more, especially when I didn't know how to defend myself"

"By the end of it, I didn't find joy in things. Only comfort and distraction"

"I hate it when a story I know concisely gets distorted by news outlets"

"My voices became my mother"

"Grief is a lifetime thing. The pain dulls"

"If the first therapist doesn't work, it's not on you"

"Anything that wasn't on the same level of severity was immediately invalid."

"[When referencing things that bring him joy] "Even till now, I don't think I was looking for joy, but looking for something comforting [or distracting]"

"We're all expected to be adults and pick ourselves up and dust our knees. Some people can, some people can't."

Thinks

resources should reach out to kids instead

what made him feel better could've been triggering for others

his youth was a big barrier to therapy

knowledge about the healthcare and mental health system is good

there should be more structure in finances and legal work

he had to function as an adult and navigate things

it was all settled after years of therapy

news outlets distorted stories

didn't know that it wasn't fair/normal to translate and work for family matters

when we figure things out, that's when things are usually done

Does

sought comfort in others

had to strictly parent himself

had an insane study schedule

talked to news outlets

went to multiple therapists

was not aware of resources available to him - waited for others to reach out

talked with a friend who also lost a loved one

hanged out with peers, family

woke up at 3 am consistently

neglected social life

Feels

lost without direction and guidance

a lot of blame for failure

strong expectation to be independent

disappointed in himself

upset that his mother wasn't coming back

frustrated that he was still grieving

like he could only talk about his grief for a limited amount of time

I started to feel like I was annoying people

detachment from peoples' more mundane problems

Feels fine now

"It's kind of crazy to expect a teen to know what their resources are"

"As a teen, I wished that someone talked to me about my positions and defended me more, especially when I didn't know how to defend myself"

Knowledge about the healthcare and mental health system is good

Resources should reach out to kids instead

Says

Thinks



Does

Feels

Was not aware of resources available to him – waited for others to reach out

Talked with a friend who also lost a loved one

Like he could only talk about his grief for a limited amount of time

I started to feel like I was annoying people

Feels fine now

Key insights

1

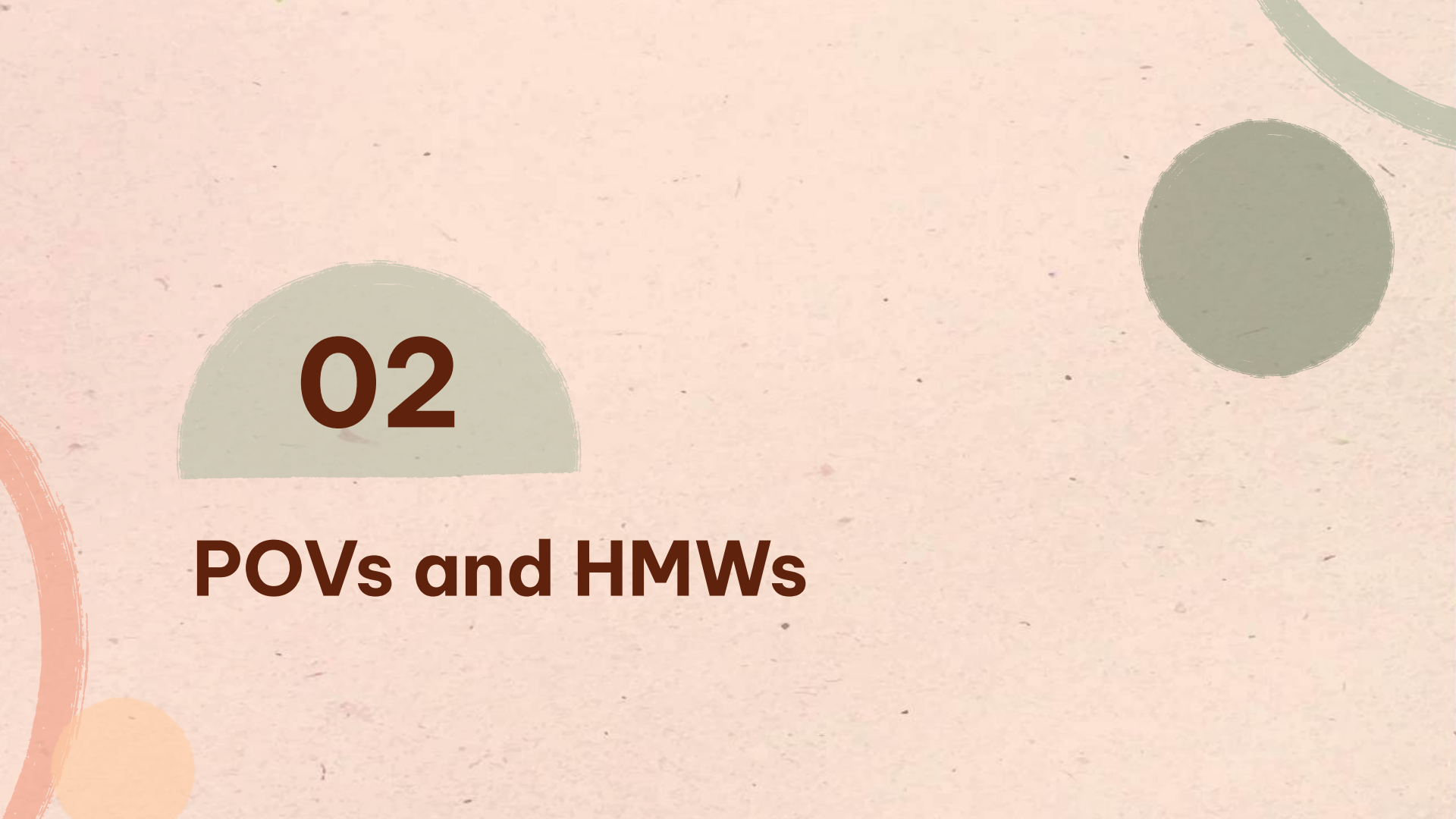
Alan can only relate/
empathize when the
experience is a **similar
level of severity** (ex. loss by
murder vs loss by old age)

2

Alan only utilized his
resources when **they
reached out to him first**

3

Alan felt like his grieving
process was frustrating
those around him who
**couldn't understand his
trauma**



02

POVs and HMWs

POV: Amy (from Studio 2)

We met Amy, a Chinese female CFO **who takes a lot of pride in her career and personal stability.**

We were surprised to realize that despite branding herself as a strong businesswoman in complete control of her stress, she **openly displayed emotional vulnerability** to strangers.

We wondered if this means that she is **in denial about the true impact of her struggles** on her wellbeing.

It would be game-changing to allow her to **explore her own feelings** and **be honest with herself.**



HMW connect people with shared struggles?

HMW allow people to share about loss without being defined by it?

HMW leverage anonymity to create spaces for opening up about trauma/pain?



POV: Sophia

We met Sophia, a Filipino immigrant who **grew up in a broken family** being raised by a single mother after the murder of her abusive father.

We were surprised to notice that despite her **envy** of happy families, she **often joked about her trauma**.

We wonder if this means by sharing her stories and joking about her trauma, she is **reconstructing a new narrative** around her past and **gaining more agency** through the process.

It would be game-changing to **shift the narrative around grief** from personal, private, heavy and melancholic to something that's **public, communal, and lighter**.

HMW balance the seriousness of grief with the lightheartedness of humor?

HMW make the process of fostering deeper connections more common and open?

HMW make grieving a positive experience instead of something to be avoided?




POV: Alan

We met Alan, a 23-year-old Vietnamese young adult who went through **significant trauma due to witnessing the murder of his mother**.

We were surprised to notice he **tried to enforce social and mental limitations on his grieving process** despite the natural need for emotional healing and support in such a profound tragedy.

We wonder if this means that his limitations stem from a deeper cultural or personal belief, where **vulnerability is equated with weakness**.

It would be game-changing if trauma **support felt as automatic and integral** as physical emergency care, connecting people like Alan with help before they fall deeper into despair.



HMW provide direct support to people going through specific traumas who are otherwise at a loss?

HMW provide structured support for families going through the loss of a loved one?

HMW make him feel more empowered to access his resources?



Top 3 HMWs

HMW leverage **anonymity** to create spaces to open up about trauma?

HMW make the process of fostering deeper connections more **common and open** ?

HMW provide **direct support** to people going through specific traumas who are otherwise at a loss?



03

**Solutions and
Experience Prototypes**

Solution

1

1

Solution:

Daily Thought Prompts

An app that prompts users to answer a “deep” question every day and reflect on their responses later

HMW make the process of fostering deeper connections more **common and open** ?

Assumption

As people answer deep questions and reflect on their responses, they will better understand themselves.

1

Experience Prototype: Daily Thought Prompts

hi raul! how are you today?

emotion:

- neutral
- happy
- sad
- angry
- content
- stressed

what's a challenge you're facing that you wish more people knew about?

options:

- answer and submit (txt back)
- remind me later

hi raul! earlier you said you were happy, and your response to the question, "what's a challenge you're facing that you wish more people knew about?" was:

"a challenge I am facing is there

take a moment to reflect on your response. how do you feel now?

- neutral
- happy
- sad
- angry
- content
- stressed

Delivered

Prototype:

- Ask how they're feeling, and ask initial prompt
- 5 hours later, asked him to reflect

Participants:

- Raul, Stanford alumni
- Recruited based on (known) experiences
- Relevant because he recently lost a family member

1

Daily Thought Prompts: Results



Learnings

- *Timing matters!* – didn't gain more understanding of himself when asked again too soon after
- Lack of autonomy over when to answer → less meaningful reflection



What worked?

- Seemed to have good reflection skills
 - Need to test for longer to get a concrete assumption confirmation

What didn't work?

- Timing was bad most of the time
 - When busy, answers were more superficial/brief → need to have user set a specific time to answer the question?
- Little change in emotion from 1st to 2nd prompt
 - Too little time between?



Solution

2

2

Solution:

Truth Chatroom

A chatroom where everyone submits their true feelings on a topic and a moderator reads them out loud for discussion

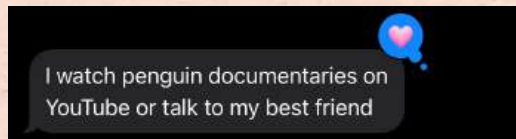
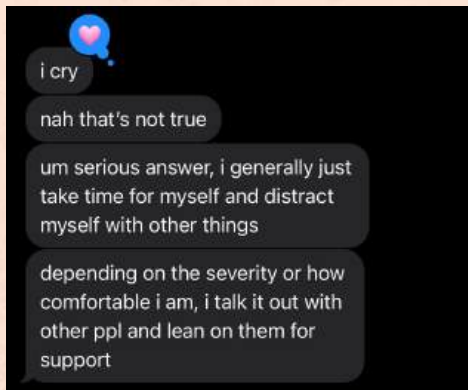
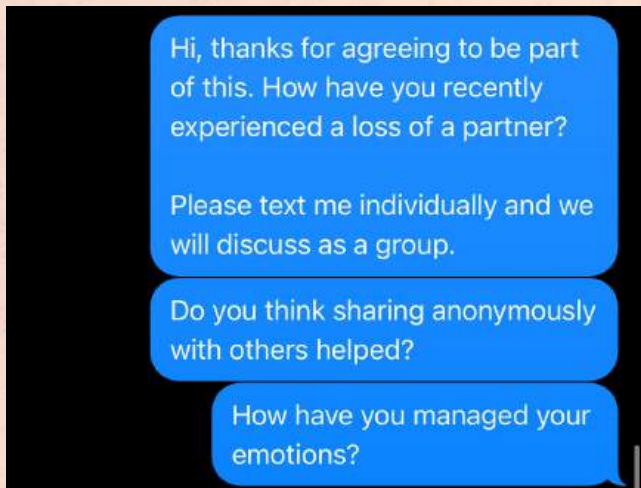
HMW leverage **anonymity** to create spaces to open up about trauma?

Assumption

People will feel comfortable submitting their true thoughts and engaging with the thoughts themselves rather than problems attached to a person.

2

Experience Prototype: Truth Chatroom



Prototype:

- Asked users to individually text me their experiences and then verbally discuss their responses anonymously

Participants:

- Avanti, Tia, Naomi, and Amanda, four Stanford students
- Recruited based off (known) experiences
- Two were coming out of difficult relationships, the other two being controls

2

Truth Chatroom: Results



What worked?

- Already previously aware of two of their hardships, but the other two also confessed to their problems
- The anonymous space and presumption of shared experiences fostered good conversation that would otherwise be untold

Learnings

- Get people to open up first!
 - Conversation got better after they had time to talk more
- People drew connections over similarities and were able to empathize despite differences
- Unexpectedly, they transitioned to verbal communication



What didn't work?

- In the beginning, it took a bit longer for everyone to respond because people had to sort out their emotions first
- Some weren't as eager to talk about their problems as they had already been coping in other ways



Solution

3

3

Solution:

Healing Roadmap

An app that generates a structured, actionable recovery plan catered to specific traumatic events

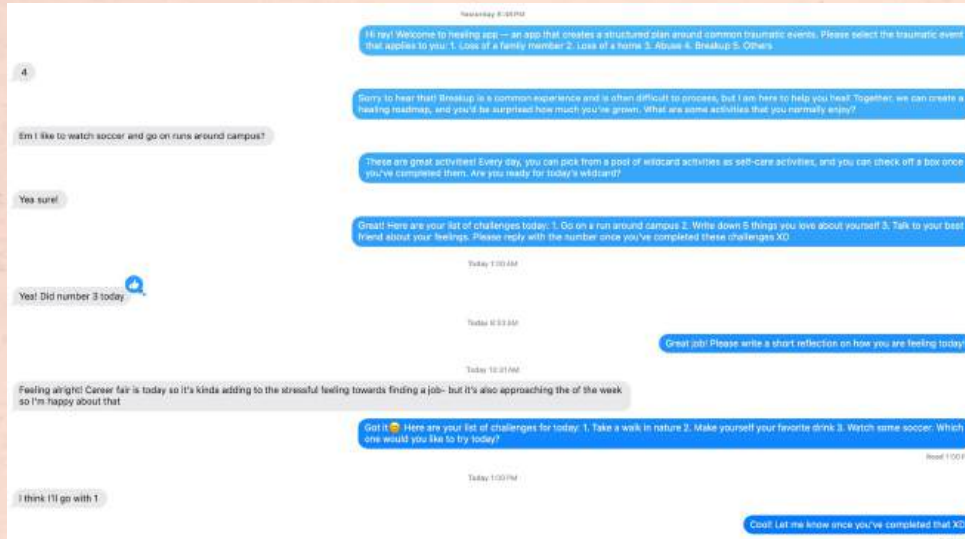
HMW provide **direct support** to people going through specific traumas who are otherwise at a loss?

Assumption

There is a universal set of healing activities that work for everyone that has gone through similar experiences.

3

Experience Prototype: Healing Roadmap



Prototype:

- Ask user to select the event (e.g. breakup, loss of family member) that applies to them
- Offer activities/challenges that they can choose from to check off and complete each day

Participants:

- Ray, Stanford student
- Recruited based on (known) experiences
- Relevant because he recently went through a breakup

User selects event

Hi ray! Welcome to healing app — an app that creates a structured plan around common traumatic events. Please select the traumatic event that applies to you: 1. Loss of a family member 2. Loss of a home 3. Abuse 4. Breakup 5. Others

4

Choose to do something from a random selection of healing activities

Great! Here are your list of challenges today: 1. Go on a run around campus 2. Write down 5 things you love about yourself 3. Talk to your best friend about your feelings. Please reply with the number once you've completed these challenges XD

Today 1:00 AM

Yea! Did number 3 today

Check off once you've completed it

Got it 😊 Here are your list of challenges for today: 1. Take a walk in nature 2. Make yourself your favorite drink 3. Watch some soccer. Which one would you like to try today?

Read 1:00 PM

Today 1:00 PM

I think I'll go with 1

Cool! Let me know once you've completed that XD

Delivered

Today 9:00 PM

Yep! Did the walk around campus as I was going to the dining hall

3

Healing Roadmap: Results

Learnings

- Need to design a more interactive system that empowers users
- More incentive needed besides sense of completion
- Common activities picked over wild cards because they are easier to do

What worked?

- User likes the idea of the system
- Enjoys the activities

What didn't work?

- Lack of motivation from the user
 - User had to be extremely internally motivated to self-care to use the app
- Suggested having more rewards



What's next?

Final Solution!

1

Daily Thought
Prompts

+

3

Healing
Roadmap



An app that combines **daily deep reflection questions** with **personalized recovery plans** tailored to specific types of loss to provide structure for people navigating grief.



Ethical Considerations

What are the ethical implications?

- **Privacy/data security** - deeply personal thoughts, sensitive information
- **User autonomy** - choices to opt out without guilt
- **Potential for mental harm** - distressing or triggering topics
- **Accessibility** - not all activities will work for everyone

Who does it serve?

- People who have experienced loss, especially young adults
- Tech savvy people, people who already use their phones daily

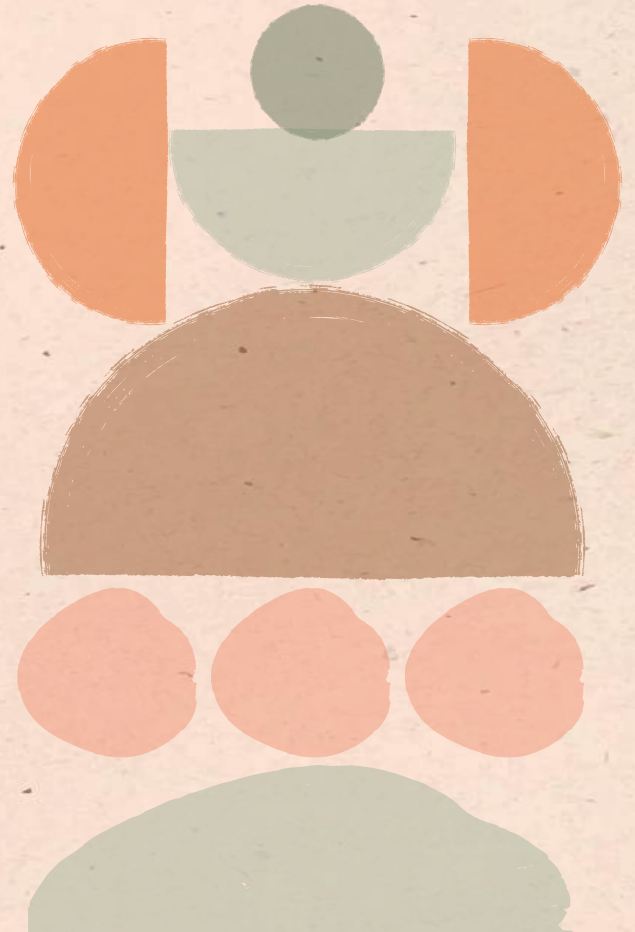


Who might it leave out?

- Less tech savvy people, people who don't use their phones often
- People who don't have the time or resources to participate in certain activities
- Non-English speakers (if there is no built-in translation)

Thanks!

Any questions?



Appendix

HMWs: Amy



- Allow people to freely express their emotions without being judged?
- Allow people to share their losses without being defined by that identity?
- Help people process traumatic events and the impacts these events have on them?
- Make emotional vulnerability something to be proud of, not embarrassed by?
- Encourage people to open up to close friends and family members?
- Make opening up and being vulnerable a natural process instead of being forced?
- Make overcoming grief as empowering as being a successful CFO?
- Allow people to think about their losses without feeling so much pain?
- **Leverage anonymity to create spaces to open up about trauma?**
- Make sharing with close friends/family members as easy as someone you don't know?

HMWs: Sophia



- Change the way people feel about grief from heavy to light?
- Encourage people to talk about their grief?
- Balance the seriousness of grief with the lightheartedness of humor as a coping mechanism?
- Create an environment that encourages people to open up naturally without feeling judged?
- Turn seeing happy families or reminds of regret into a positive experience instead of a painful one?
- Make the grieving process enjoyable instead of something people generally avoid?
- Turn sensitive, personal topics that are currently the taboo in everyday conversations a normal part of things people talk about daily?
- **Make the process of fostering deeper connections more common and open?**
- Make people who share their personal experiences feel heard, understood, supported, and not alone?
- Question assumptions about others and get to know their more authentic sides beyond what is shown on the surface?

HMWs: Alan



- Make him feel more empowered to access his resources?
- **Provide direct support to people going through specific traumas who are otherwise at a loss?**
- Dismantle personal social/mental limitations during the grieving process?
- Provide niche advice for him that only few have experienced?
- Provide structured support for families/individuals that are going through the loss of a loved one?
- Reassure him that he shouldn't restrict his grieving process to be socially polite?
- Ensure therapists and other mental health services directly connect traumatized individuals?
- Distract him from his grief to better cope with it?
- Provide support to help replace the loss of one of his parents?
- Remove and re-delegate responsibilities placed on him to translate and be involved in adult affairs?

Solutions Brainstorming

BRAINSTORM

1. Make the process of fostering deeper connections and understanding in interpersonal relationships more open and common in everyday conversation
 - a. Make a group chat that is intentionally prompted to talk about feelings, with an encouragement to talk about difficult things
 - b. Prompt users to answer a "deep" question every day and reflect on their responses +++
 - i. Anonymous initial text: how do you feel at the moment, then [deep prompt here] – have time limit
 - ii. Follow-up text: how do you feel at the moment, then reflect on your answer to this [deep prompt] [show response]
 - iii. (Like Bereal) with questions, the reflections are random but the time is set
 - iv. Inside-out component: make a visual sense of self based on all the information

Critical assumption: As people answer deep questions and reflect on their responses and emotions, they will improve their understanding of themselves.

 - c. ** This and allow users to share to specific boards (after it's gone through a check from moderators) where others can see and respond
 - b. Like that card game I forget what it's called but it has red cards and it has random deep questions on it → earn points by answering a question every day, can make a friend group + if all your friends also answer, everyone's answers are revealed → incentivizes everyone to share to each other +
 - c. Initialize a user's profile using answers to these more personal questions and use these stories instead of simpler identities to represent themselves ++
 - d. Have a pool of suggested questions in the chatbot or an NLP system that automatically generates these questions as suggested questions when the conversation goes in that direction
 - e. Gamify creating deeper connections (the deeper you go, the more points you get) +
 - f. Have people play simple and fun games while talking to others about their pains +
 - g. People input their personal information/stories and as others slowly get to know them, they answer questions about the people they are getting to know and question their own assumptions about them
 - h. Like Inside Out 2 with a sense of self, people can each have a virtual sense of self which they talk to like an interactive journal which summarizes what they've said (sentiment analysis ish) – and share it with their friends – can keep things confidential from certain people – you can look at people's sense of self, can see some things they've talked about +++
2. Leverage anonymity to create a safe space to open up about traumas/pains

- a. Have an anonymous chat room that a moderator can set a theme and everyone talks +
 - b. Create an online support group for those who are going through the same thing (specific trauma) that is moderated by a mental health professional (or someone with equivalent qualifications) +
 - c. Have an anonymous panel where a speaker talks about their trauma and everyone listens +
 - d. Metaverse vibe where everyone has an avatar/game characters + can create a garden that grows + you feed the garden by talking/writing about things + different plants grow depending on what you talk about, other people can visit your garden without knowing your real identity
 - e. Everyone adopts pseudonyms and intentionally talk about deep topics, people are able to connect to the idea/identity of a person while preserving a sense of anonymity and lack of judgment +
 - f. Everyone submits their true feelings on paper, and a speaker reads them out loud to a group to discuss +++
 - i. Join a room that's focused on a specific topic (live session) – there's a topic/prompt and everyone writes a response, then afterwards it's shared to the group (after moderation)
- Critical assumption:** people will feel comfortable on submitting their true thoughts and engaging with the thoughts themselves rather than problems attached to a person
- g. Users can "unlock" more information about the people they are interacting with the more they talk to them +
 - b. Confession booth ++ +
 - c. VR game lobby where people play games together, but people are encouraged to chat about deep topics and feelings (actually a thing on youtube, there's this video of this former vet who talks about feelings) +
 - d. Club penguin type beat, but everyone shares their trauma – can have fun and deep ++ +
3. Provide direct support to people going through specific traumas, who are otherwise at a loss
 - a. Match users with similar experiences and engage in a discussion forum
 - b. Match users with volunteer therapists who specialize in the areas of the users' need +
 - c. Create a structured plan around common traumatic events (loss of a parent, loss of a home, break up) +++
 - i. Have a healing roadmap where users can choose which ones to access and keeps a record/timeline of the healing process
 - ii. A wildcard/challenge where users can pick from a pool of self-care activities
 - iii. Add your own activity/resource and that will be updated in other people's pools
 - iv. Every day journal about healing process, and that could be shared with others anonymously

- Brainstormed together in person for solutions to HMW statements
- Each member anonymously voted for top 7 favorites, then picked top 3 with most total votes

Critical Assumption: There is a universal set of healing activities that work for everyone that has gone through similar traumatic experiences

- d. Create a group of mental health professionals that scout out for young(?) people going through particular traumas
- e. Given a user's location + questionnaire, determine the best counselor/therapist/service they need based on local reviews, professional medical guidance, etc. and connect them directly
- f. Create a guide for hospitals to use when dealing with people going through loss of a loved one (so they can direct and connect people to resources)
- g. Create an app where users can go through a mental evaluation (intro therapy session) and referred as needed
- h. Have structured legal, medical, mental advisory set up automatically as part of medical/emergency services post-care +
- i. A storytelling platform where people share their traumas and resources for coping with the traumas, and users can directly access these resources +++
- j. A personalized questionnaire that identifies users' most urgent needs and provides corresponding resources based on those needs +

Solutions - Ethical Implications

1

Daily Thought Prompts

- **Autonomy** - give choice to skip questions
- **Mental harm** - potential to cause distress, trigger bad memories, contribute to negative thinking patterns
- **Privacy** - protect sensitive information and everything users want to keep confidential

2

Truth Chatroom

- **Anonymity and privacy** - if we are going to guarantee anonymity, this needs to be protected
- **Moderation** - power dynamic with a moderator can be abused, e.g. silencing voices
- **Trolling, bullying, or harassment** - if not moderated adequately

3

Healing Roadmap

- **Data collection** - consent for collecting data, esp. on people's traumatic experiences
- **Effective guidance** - materials should be based on professional mental health guidance to minimize potential harm
- **Agency** - users should have choice for activities