Slide 3 - 7: Stats (Add pauses between numbers and explanations)

Six, Hundred, Billion, Dollars. It is not the net worth of a billionaire, not the revenue of a whole industry. (c) It is the value of unpaid caregiving in the USA in one year alone. (c)

Eighty two billion Hours. It is not the length of human history, (c) but the amount of care provided by 40 million caregivers to people with dementia in 2015 alone. (c)

1.5 million, Not the number of people with a specific disease, (c) but the number of caregivers who provide over **50 hours** of care **weekly** in the United Kingdom. (c)

[Phanh] And behind these numbers, real people, struggling mentally and emotionally, with an estimated **40%** of family caregivers at risk of depression. These numbers speak volumes — but still, the voices behind them often go unheard (c)

[Phanh] Slide 8-13: News report

Let me bring you into their worlds. Millennial siblings (c) talk about guilt, loneliness, and being torn between their future and their responsibilities.(c) Danny Mendoza, caring for his dad with dementia (c), described feeling **suicidal**.(c) (c)The mental toll is alarmingly immense.(c)

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[Phanh] Slide 14 - 16: Key problem

From our research, we identified 3 core challenges faced by caregivers today

First, they often carry a **silent burden**. They don't speak up, not because they're fine — but because they feel they have to stay strong. (c) Over time, that silence creates **distance** from society.

Second, there's a fear of being judged which slowly turns into **solitude** — a quiet loneliness, even when they're surrounded by people.

And finally, caregivers are overwhelmed by a busy schedule, making it difficult for them to seek help and even when help exists, it often arrives **too late**. (c)

Putting every piece of puzzle together, (c) we arrived at two words, isolation and misfit (c)

[Phanh] Slide 17 - 19: Current solutions

currently, there are three main streams of support for caregivers.

social media: emotional support

forums: practical help and experiences

governemnt : professional help resources

yet, something is lacking in **all** of them. (c)

- Social media groups are often **inconsistent**, and sometimes harmful, filled with judgment instead of support.
- Forums may have kind users, but it can take **hours** or **days** for someone to respond
- Government services are too **generalised** and bureaucratic to meet the emotional needs of individuals in crisis

most impprtant of all (c), it is **passive**.

[Phanh] Slide 20: Vision

With that in mind, we asked ourselves: What if caregivers could receive support **immediately** not just when they asked but the **moment** they needed it? (c)
That's why we came up with **CycHope**— (c) a digital platform created with one goal(c): **Bridging technology and community for caregivers.** (c)

[Phanh] Slide 21 - 26: CycHope

At the core of our solution is CycHope — the **hope sharing** feature. Once the caregiver gives consent, our system will **learn their emotional signals** and **respond in real-time**. © For example: (c)

When positive emotion is detected, © such as, users are playing happy music, they will be invited to record Hope voice messages to encourage other caregivers who might need it later. (c)

On the other hand, when signs of depression or loneliness are deêtcted, (c) the app will suggest playing a pre-recorded Hope Message from its database to comfort and support the user. (c)

It's **immediate**. © It's **relatable** (real people behind these messages). (c) And it's **active** (support will reach you not the other way around). (c)
At the end of each month, users will receive a **summary**: how many Hope Messages they have **shared** and how many they have **received**. It is an assurance that they are both **cared for** and **caring for each other**.

To further encourage the culture of empathy, for each message recorded & verified by our monitor, users will receive **sparks**. These 'sparks' can then be used to **exchange government vouchers.**(c)

[Trang] Slide 27: CycHope vs MindFi

While platforms like MindFi rely on users to manually log their emotions and book consultations, CycHope offers a more **intuitive experience**. It **automatically detects emotional states**, prompting an **immediate response**. And, instead of passive lectures, CycHope connects users with **heartfelt messages** from real caregivers — bringing **human warmth.**

[Trang] Slide 28 - 29: Vent Canvas

But what if, they WANT to explain their emotions? What if they just need a listening 'ear'? (c) Our **Vent Canvas** is here to help!

Vent Canvas provides users a **safe & therapeutic space** to express their suppressed emotions by turning the recording of their venting sessions into **sketches** at real-time pace. (c)

Users will record voice journals or venting sessions. After that, our algorithm will **analyze the mood of the user** and match it to the suitable colour & theme that reflects the user's emotions at that moment.

And of course, user privacy is our top concern, so all recordings will **immediately be deleted** after processing.

With Vent Canvas, we *"**Keep the Emotion, Not the negativity**"*(c)

[Trang] Slide 30: VentCanvas vs other apps

While ArtMyMood relies on static photo analysis to reflect emotions and VentNow offers generic AI chatbot interactions, VentCanvas stands out by **capturing emotional nuance directly from voice tone and words**. It doesn't stop there — VentCanvas channels those emotions into personalized art, offering both expression and insight in one powerful experience.

[Trang] Slide 31 - 33: Smart Grouping

Caregivers often say: 'No one understands what I'm going through.' (c)
That's when **Designated Chatgroup** comes in (c)— a small, curated support circle made up of people in similar situations.

For example, (c)Ivy is a working adult caring for her mother with dementia. (c) The app identifies these attributes and allocate her into respective support groups of others just like her (c) — people who truly get it.

When Ivy voices out her struggles in the groupchat but no one replies, our chatbot will immediately step in with **supportive and tailored responses** based on the knowledge it gained from **observing group interactions** (c)(c)

Chatbot is also responsible for **disseminating specific information from NGO & Govt** to targeted users.

This grants users direct access to professional help and resources.

To protect users, the chat is **moderated** using both tech filters and human oversight. We want caregivers to feel safe expressing their struggles, without fear of privacy.(c)

[Thomas] Slide 34: Feasibility

Now we have seen how our solution addresses the needs of the caregiver, let's move on to the feasibility of our solution.(c)

[Thomas]Slide 35: CycHope

At the early stage: (c)Free & lightweight software (Mongodb and Pandas)(c)
At a later stage: transit to a more versatile and powerful database & insightful data analysis(c)

[Thomas] Slide 37 - 44: Mood inference
(Just potential methods, not our "real" method)

What lies at the heart of CycHope is Mood inference technology. Here is a summary of how mood inference **might be achieved** with Artificial Intelligence.(c) Although "Mood" is a very subjective topic, it can be inferred through the multitude of information provided by the mobile phone. (c)Be it through detecting facial expression, tones and words in speeches, duration and types of apps used, and the content they browse. Research across the world shows that AI can quite accurately infer the emotions of users in a controlled environment.(c)

Here are some existing AI architectures we can leverage for various channels of information.

Beyond more conventional information sources, (c) we also find some research showing more inconspicuous and novel methods of monitoring emotions, that might be less intrusive for the users. (c)

Now, how might our app leverage users' data to improve its prediction? Reinforcement learning **might** be one approach.
The model will automatically collect explicit user feedback, meaning when AI is unconfident with the prediction, it will confirm with the user.
And implicit users' feedback, meaning to assess whether the user's following action follows the model's prediction. (c)

The sensor data can also be used to improve our model. (c)We can run a clustering algorithm on the data collected, (c)and associate the clusters with specific characteristics, (c)Then, we can evaluate the appropriate actions when clusters are identified in the future.(c)

Slide 45 - 46: VentCanvas (just live demo)

[Thomas] Slide 47: Smart grouping

We will categorise users based on the information they provided, If users do not want to provide personal information due to a lack of trust, the VentCanvas & CycHope feature will still be available to them.

For more **accurate and humanised support** for future users, we will train the AI Chatbot to learn from past users' data.(c)

[Trang] Slide 48-52: Privacy Framework

We understand how personal and sensitive the data provided is. (c)That's why privacy isn't an afterthought — it's the **foundation**.(c)

We ensure **full transparency**.(c) Users are clearly informed about how their data is used — no hidden clauses, no print traps. Every feature comes with a **consent** — caregivers choose **what to share, how, and with whom**.(c)

All identifiable information such as (c)Names, faces, locations — anything that could reveal identity is either removed or replaced. What's shared is never tied back to the individual.(c)

To go further, we use federated learning.(c) That means we train our models directly on users' devices. The raw data never leaves the phone — only the encrypted learnings do. It's like teaching the system without handing over your diary.(c)

On top of that, we implement end-to-end encryption. (c)Only the user and their intended recipient can access the data — not even we can see it. And with zero-knowledge servers, we don't store any decryptable information. Even if the system is breached, the data remains unreadable."

We designed this feature with careful consideration, because it's built for those who give care and need care. And safety — emotional, digital, and personal — is something every caregiver deserves.(c)

[Trang] Slide 53 - 55: Financial Feasibility

Moving on to financial feasibility.(c)

Our main revenue stream is from the Government such as GovTech and Institute of Mental Health, & NGO Grant, like Caregivers Alliance Limited. CycHope compliments other solutions by disseminating information accurately and more effectively, therefore helping the agencies to save cost and reach caregivers directly.(c)

On the other hand, art by VentCanvas encapsulates the emotions of the user. These arts have aesthetic values, such that they can be turned into NFT. Revenue made from these NFT will be used to maintain the app and keep it free for all.(c)

Evaluation

[Thomas] Slide 56 - 57: Cost Structure

to evaluate the sustainability of our.

We have identified three key areas of cost in running the application. Hosting the backend, Training AI models, and App Development.(c)

We can reduce the cost via these three strategies. Serverless hosting reduces the cost of hosting and allows scaling features without exponetially increasing cost

Using open source and pre-trained models at the start of deployment, allows for a lower starting cost.

And we can outsource our models and service APIS to trusted agencies.(c)

[Thomas] Slide 58, 59: Impact

We will evaluate the impact by three guiding factors: Active Users, Stress Reduction & Depth of Usage.(c)

For Active Users, we aim for at least 25% Day-30 retention for the first year — meaning 1in 4 users are still engaged a month after downloading.

Another type of quantitative data that we focus on is Depth of Usage of the app. We deem our app as successful in this criterion if after 1 year, >= 30% of users spend more than 5 minutes per session.

For stress reduction, we would also be sending monthly surveys to users to collect qualitative data of the effectiveness of our features in reducing stress.(c)

[Thomas] Slide 60: Closing

[Trang] This is the end of our presentation, but **NOT** the end of our solution

[Thomas] We envision our solution to go out into the world,a nd impact lives of millions of caregivers

[Phanh] Thank you for your time, and remember:With CycHope…

[Together] **hope shall find its way**