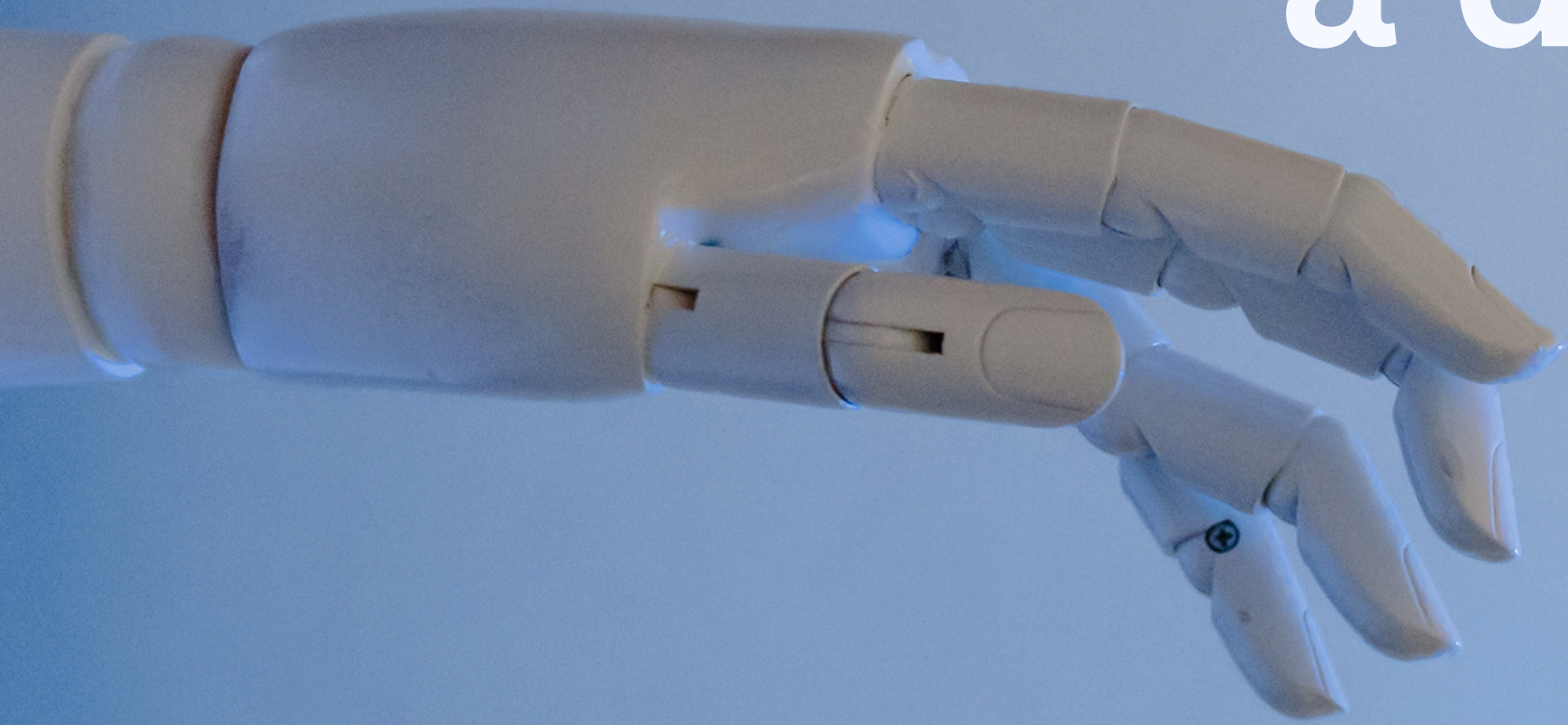


Kai

Bringing technology and design together for
everybody

Meet Kai, a dog powered by AI



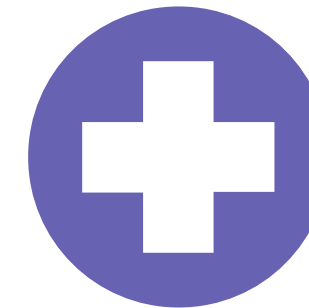
Designed to revolutionize eldercare

Interactive features

Kai's intuitive mode of operation ensure a seamless integration into the elderly person's daily life



VOICE ASSISTANCE

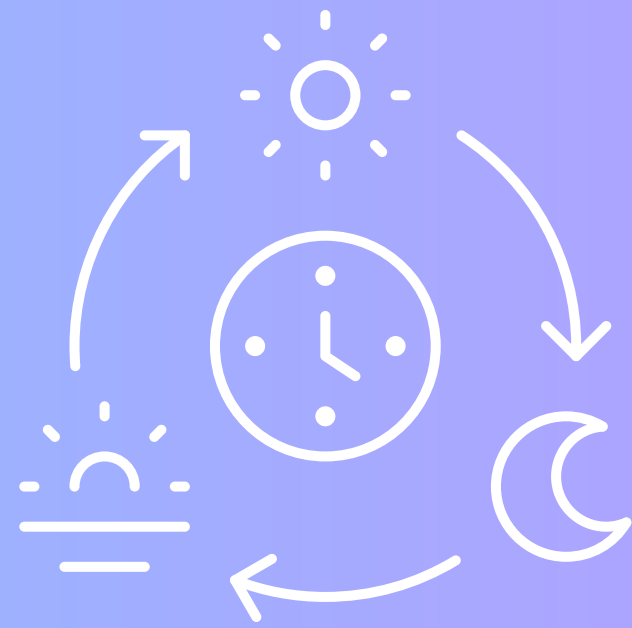


HEALTH MONITORING SYSTEM



COMPANION APP

NEW ERA OF ELDERCARE



Seamless integration
into daily life



Presence not intrusive but
a welcomed addition to
their living space



Provides
companionship, social
connection , against
isolation

Defining our users

REBECCA

SEMI-EXPERIENCED
TECHNOLOGY USER



AGE: 65
 OCCUPATION: Retired teacher
 EDUCATION: Bachelor of arts
 MARTIAL STATUS: Married
 LOCATION: Essex
 ONLINE LOCATION: Smartphone and iPad
 DEVICES: Smartphone, iPad, and landline
 INTERNET USAGE: 3 hours a day

SKILLS

- Good basic skills using help iPad
- Technology enthusiast
- Quick learner

FLAWS

- Impatient
- Bad eyesight
- Reduced mobility

PROFILE

Rebecca is a keen technology user. Her skills vary but she mainly uses her iPad. She usually uses technology to contact her friends and family, but also to play online chess. Her skills using her iPad are good, however she cannot properly use her smartphone yet. She recently started looking for help to download her photos from her iPad onto her phone.

Obstacles Rebecca faces:

- dealing with new smartphone technology
- struggling to manipulate social media

HOW WILL REBECCA INTERACT WITH TECHNOLOGY?

Questions Rebecca will ask:

- How can I use social media?
- How can I set up my smartphone and pay bills?
- Will my reduced mobility limit and eyesight limit my experience using my smartphone?

WHAT INFLUENCES REBECCA TO USE TECHNOLOGY?

50%

For herself and entertainment

50%

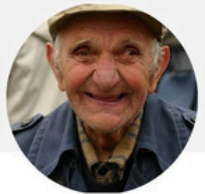
To contact her friends and family

REBECCA'S SITUATION

- Wants to learn how to use her phone properly, despite having good skills using her iPad
- Looking for help and support

DIDIER

UNEXPERIENCED
INTERNET
USER



AGE: 67
 OCCUPATION: Retired
 EDUCATION: Secondary school
 MARITAL STATUS: Widowed
 LOCATION: Yorkshire
 ONLINE LOCATIONS: Mobile
 COMPUTER(S): Iphone and landline
 INTERNET USAGE : One hour a day

SKILLS

- Quick learner
- Curious
- Good eyesight

FLAWS

- Outdated IOS
- Slow internet
- Nervous

PROFILE

Didier is a retired fireman with very little experience using technology. He recently got scammed by a text message which incited him to click on a phishing link. He still feels the need to use internet and technology as it is his only link with his family. He also struggles with internet connection as he lives in an isolated location.

Obstacles Didier faces:

- Exposure to scams
- Little knowledge on usage and functionality of technology

HOW WILL DIDIER INTERACT WITH TECHNOLOGY?

Questions Didier Will ask:

- How do I safely use my phone?
- How can I navigate new interfaces such as social media or calling apps?
- How can I navigate online ?
- How much will my phone bills cost me? And how much data do I need?

WHAT INFLUENCES DIDIER TO USER TECHNOLOGY?

30%

For himself and entertainment

70%

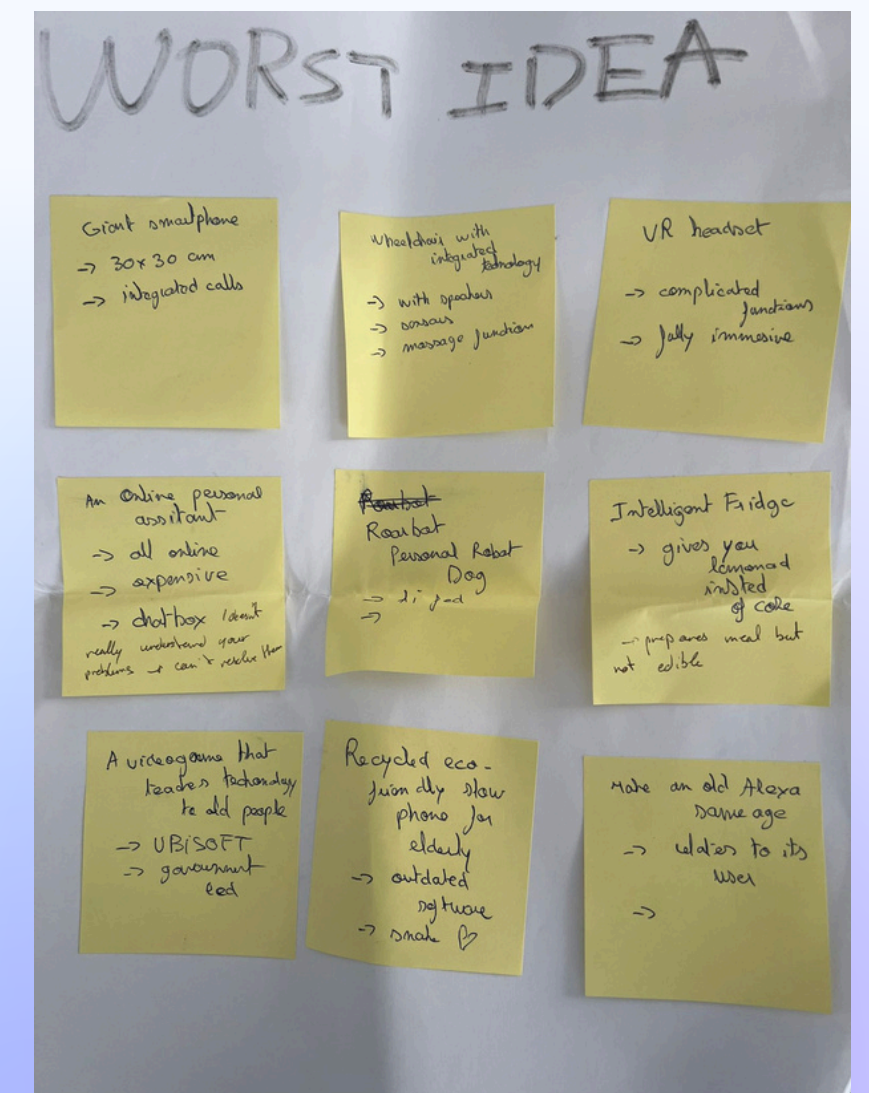
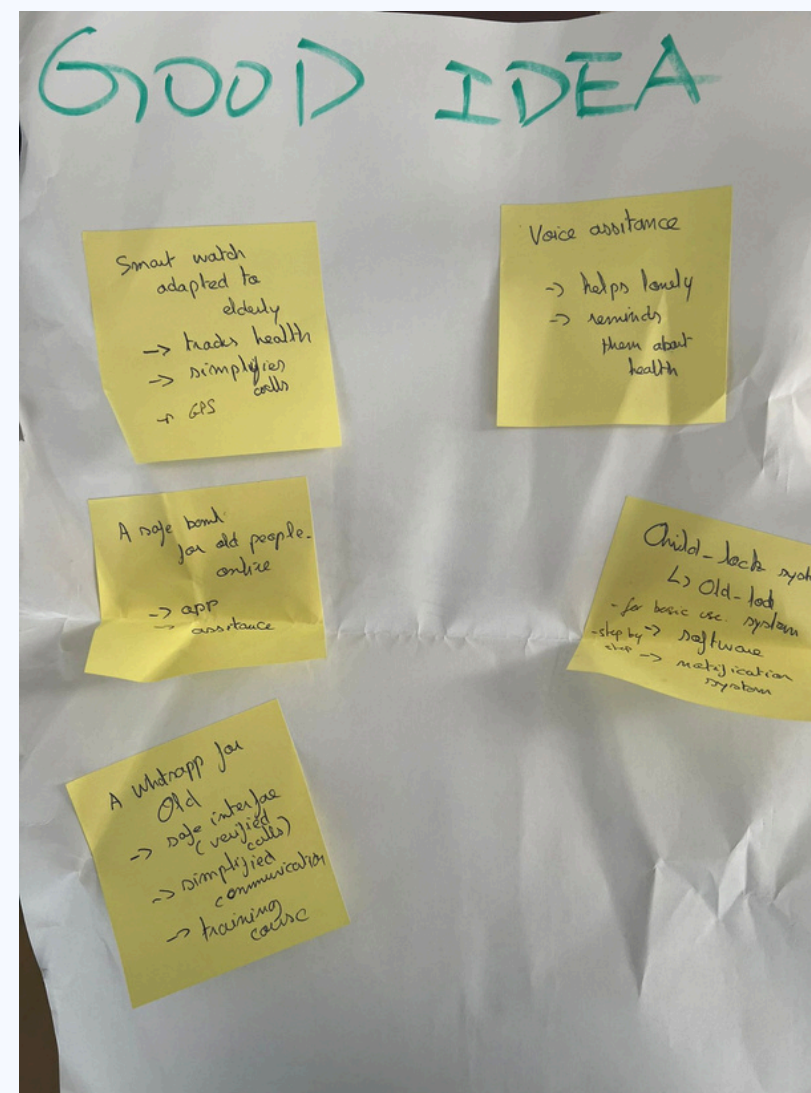
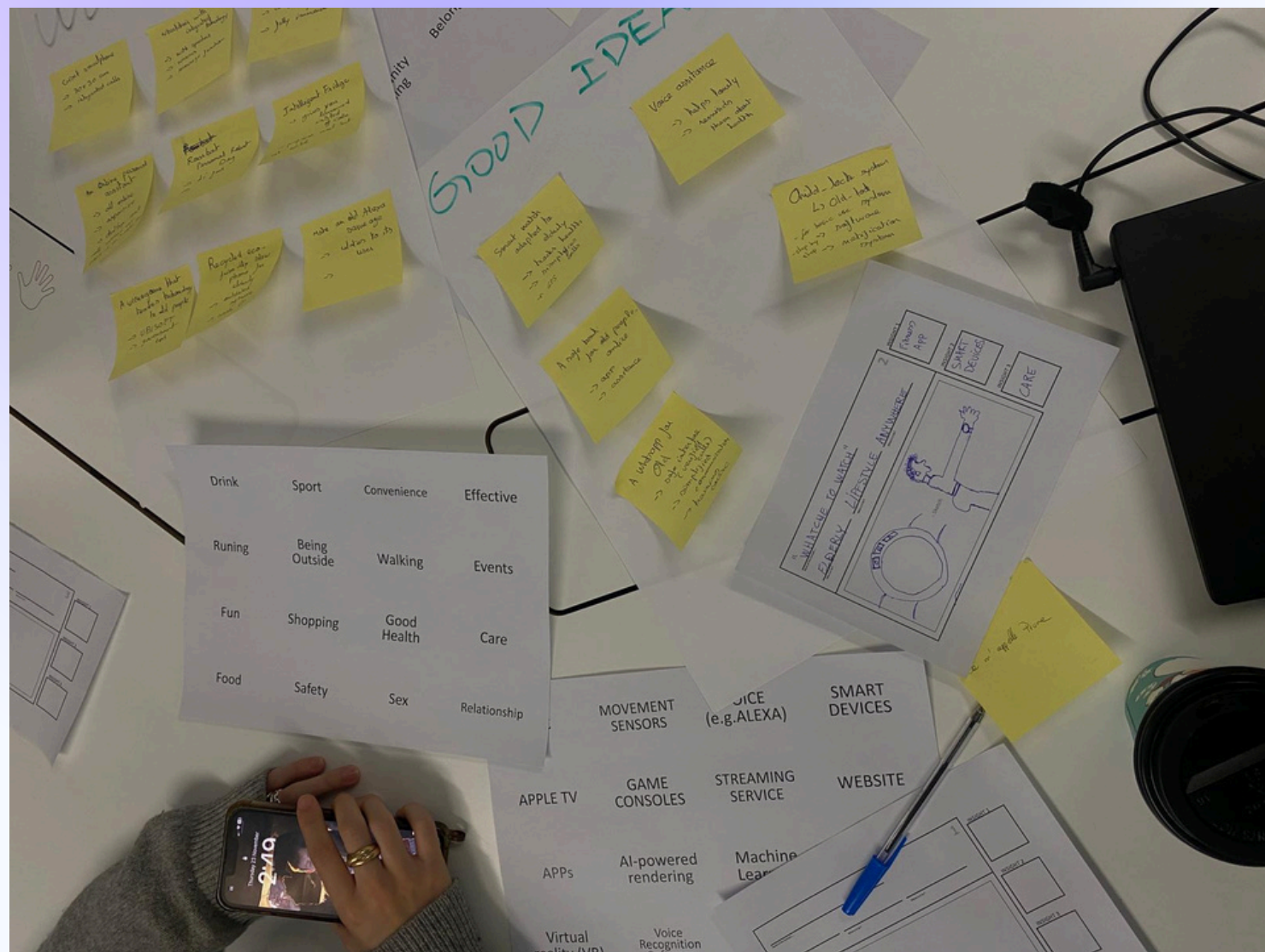
For his family and friends to stay in touch

DIDIER'S SITUATION

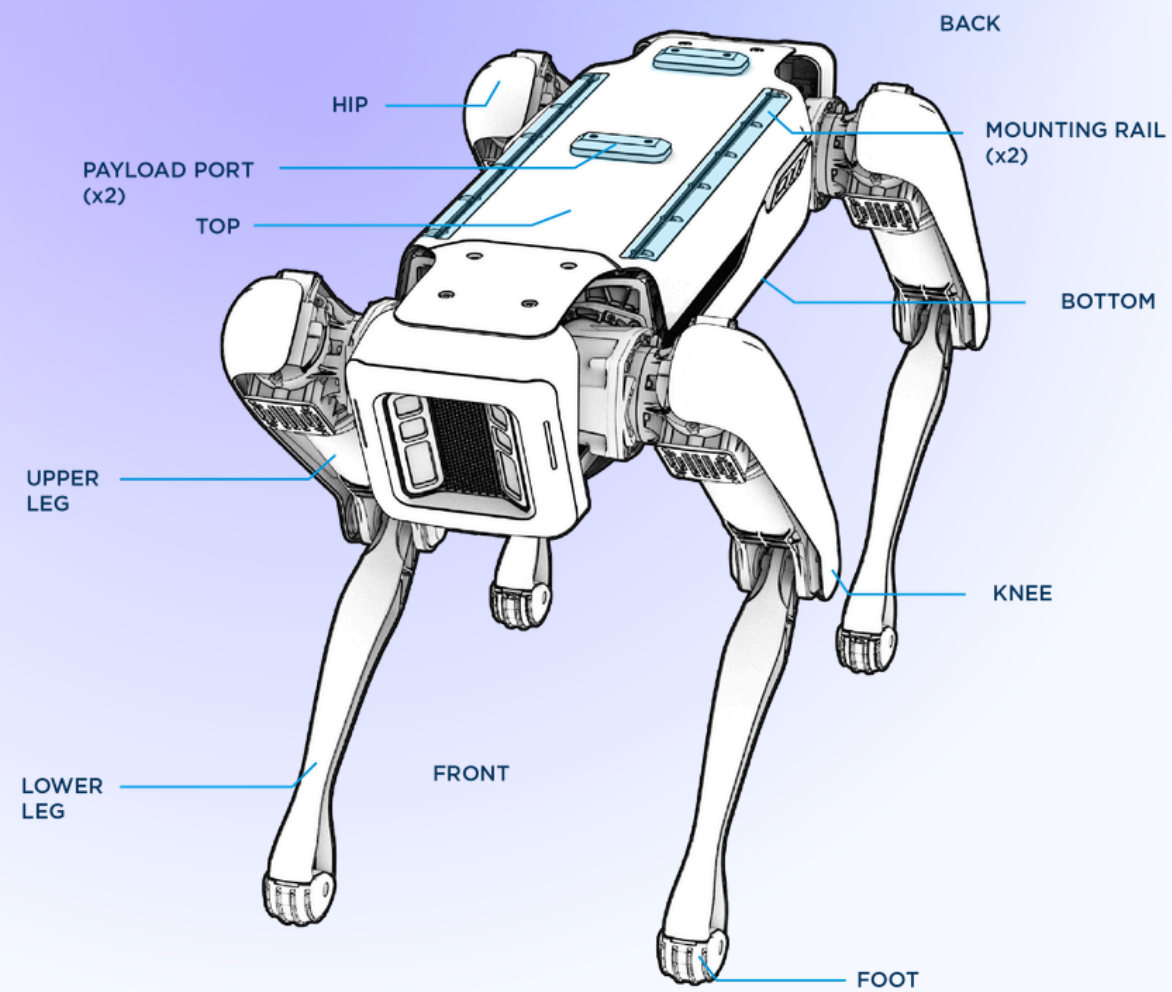
- Anxious when using technology because of previous scams
- Unfamiliar with new technologies and apps
- Didier wants to learn how to properly use his smartphone but doesn't know where to seek for help

Ideation

“Design a digital product or service that allows elderly users to stay safe and remain as healthy as possible”

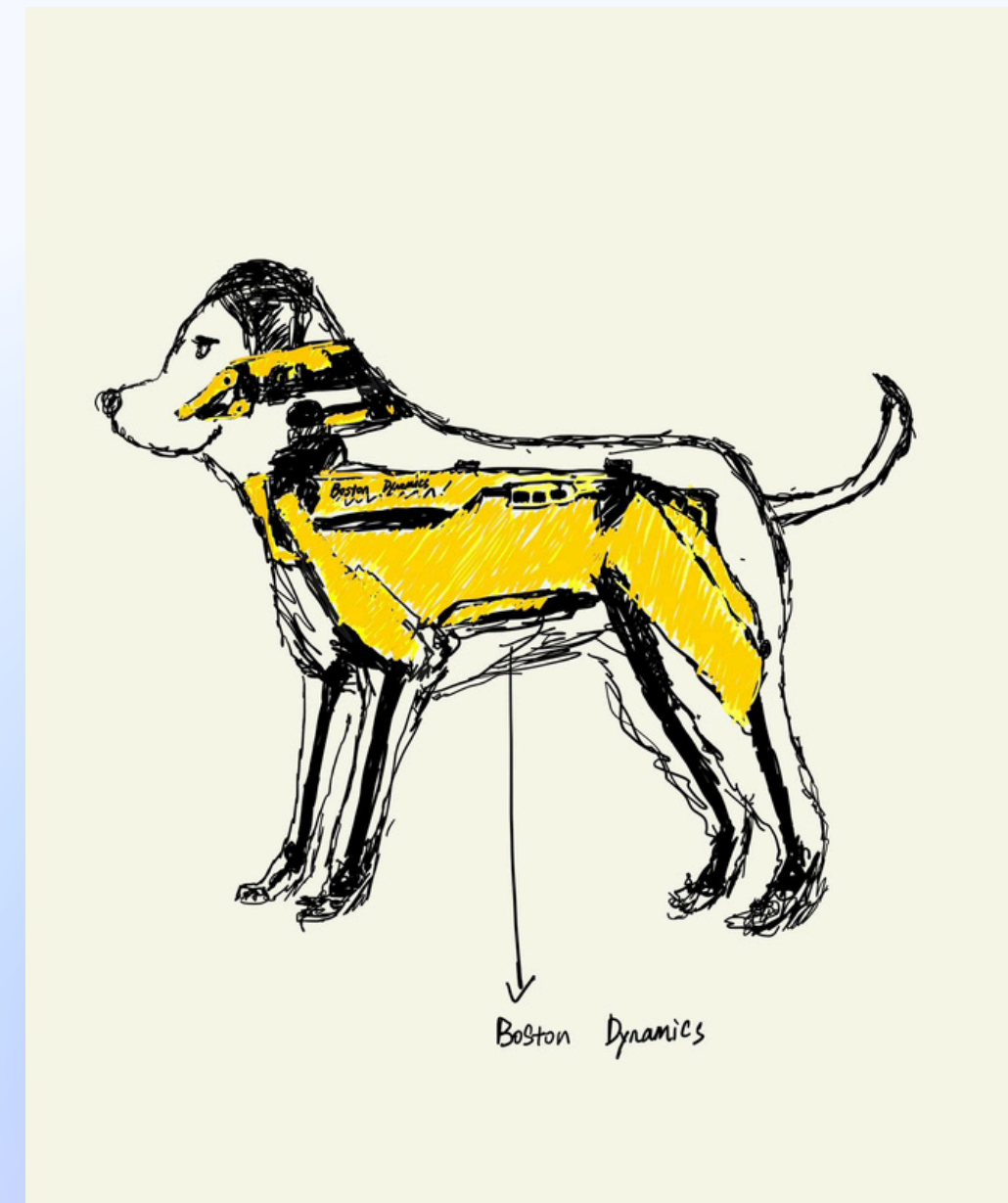


Refinement



Prototyping

Sketching



Prototyping

Programming our voice assistance

The screenshot shows the Vercel AI Assistant prototyping interface. On the left, there's a sidebar with 'Topics' and 'Components'. The main workspace is a canvas with a workflow diagram. It starts with an 'Event' block, followed by 'AI', 'Talk', 'Listen', 'Logic', 'Dev', and 'Library' blocks. The workflow consists of two blocks: 'New Block 4' with a prompt '*(last_response)*' and 'setting persona', and 'New Block 5' with a prompt 'Capture user reply to (last_response)'. On the right, the 'Response AI' configuration panel is visible, showing 'Data Source' (AI Model selected), 'Prompt' (*(last_response)*), 'Prompt settings' (GPT-3.5 turbo), 'Temperature' (0.70), 'Max Tokens' (128), and 'System' (You are an extremely helpful and engage with any interaction with another question).

The screenshot shows the Vercel AI Assistant interface displaying a transcript of a conversation. The transcript is titled 'Transcripts (2)' and shows a conversation between a 'Test User' and the assistant. The user asks 'How may i help you today?' and the assistant responds 'Good morning! How can I assist you today?'. The user then says 'Good morning! How can I assist you today?' and the assistant responds 'To say thank you for your kind words! As an AI language model, I strive to provide accurate and helpful responses to all questions and interactions. Is there anything specific you need help with today?'. The user then says 'I just want to be loved' and the assistant responds 'It's completely understandable to want to feel loved and appreciated. Remember that love comes in many forms, and it's important to love and care for yourself first. You are deserving of love and respect, and it may take time to find the right person who will give you the love you deserve. In the meantime, focus on building strong relationships with friends and family, pursuing your passions and interests, and taking care of your physical and emotional well-being. Remember that you are not alone, and there are people who care about you.' The interface also shows a 'Build your first assistant' button and a 'Notes' section.

SOFIYA'S PART

Evaluation

Drawing from insights garnered in seminar sessions, we employed a SWOT analysis to dissect the internal strengths and weaknesses, as well as the external opportunities and threats. This rigorous analysis brought to light the necessity for a more profound and invaluable perspective to critically examine potential challenges inherent in our product. It also pushed us to quickly adjust and improve any noticeable weaknesses, guaranteeing a strong and adaptable product development path.

SWOT	
internal	external
<p>Strengths:</p> <ol style="list-style-type: none"> 1. Customised automation systems with great interaction and user experience for the elders 2. Emotional support and reduced isolation for elders 3. A good health monitoring and emergency assistance 4. User-Friendly Interface for elders 	<p>opportunities:</p> <ol style="list-style-type: none"> 1. technological advancements can enhance the AI dogs' capabilities, which help to build a more efficient and interaction AI dog. 2. Possibility of collaborations with tech firms, senior housing complexes, and healthcare providers(thus have chance to obtain the funding). 3. Although AI dogs were first intended for the elderly, there is potential to extend their use to other populations, such as those in need of rehabilitation assistance or those with disabilities. 4. AI dogs are expected to become more popular and adopted as society grows more accustomed to using robotics and AI in everyday life.
<p>Weakness:</p> <ol style="list-style-type: none"> 1. potential challenges in mass production(manufacturing parts, supply chain, quality control) 2. Resource limitation (eg. human resource, cost, technological issues) 3. User privacy and data protection are critical for a product handling sensitive health data, and they may be compromised if the company lacks strong data management and security procedures. 4. User acceptance and trust may be significantly impacted by the AI dog's dependability or safety concerns. 	<p>threats:</p> <ol style="list-style-type: none"> 1. A potential constraint is the need for confidentiality, as an AI dog must possess extensive information and data pertaining to the elderly individual it is providing care for. The issue of confidentiality can present ethical dilemmas 2. Elderly individuals, despite the AI dog's advanced technology and seamless integration into their daily routine, may be hesitant to adopt the technology and fail to derive any benefits from it or successfully incorporate it into their lives. 3. Reliability and functionality are concerns when relying too much on technology, particularly in emergency situations. 4. Increased competition could result from an influx of comparable technologies or alternative solutions into the market.

Reference list

Evans, B.J. (2023). Rules for robots, and why medical AI breaks them. *Journal of Law and the Biosciences*, 10(1). doi:<https://doi.org/10.1093/lb/lsad001>.

Groumos, P.P. (2019). Artificial Intelligence: Issues, Challenges, Opportunities and Threats. *Communications in Computer and Information Science*, pp.19–33. doi:https://doi.org/10.1007/978-3-030-29743-5_2.

Othman, A., Eriksson, Y. and Chirumalla, K. (2019). Mapping Artificial Intelligence (AI) Capabilities around Human Competences: An explorative study. [online] Available at: <https://www.diva-portal.org/smash/get/diva2:1333412/FULLTEXT01.pdf>.

External VS Internal



opportunities

- **AI Enhancement:** Upgrading KAI functionalities for better efficiency and interaction.
- **Broader Application:** Adapting KAI for diverse groups including rehabilitative support and disabled individuals.
- **Partnership Potential:** Exploring joint ventures for investment opportunities with technology companies, senior living facilities, and medical institutions.
- **AI Adoption Surge:** Increasing familiarity with robotics to boost KAI popularity.

threats

- **Confidentiality Concerns:** KAI must safeguard sensitive elder care data, raising ethical questions.
- **Tech Adoption Reluctance:** Seniors may resist using KAI, missing out on potential advantages.
- **Tech Dependability Doubts:** Overreliance on technology, especially in crises, poses reliability risks.
- **Market Rivalry Risks:** New tech app with the same type could intensify competition in the tech market.

- **Elder-Friendly Automation System:** Tailored interactive systems for senior ease-of-use.
- **Companionship Care:** Emotional comfort and solitude mitigation for the elderly.
- **Health Vigilance:** Efficient monitoring and urgent aid for seniors' well-being.
- **Intuitive Elder Tech:** Simplified interfaces designed for elderly accessibility.

- **Resource Constraints:** Navigating limitations in staffing, budget, and technology for project execution.
- **Privacy Imperative:** Ensuring robust data security for sensitive health information management.
- **Reliability and Safety Trust:** Building user confidence through dependable and secure KAI performance.

strengths

weakness

Reflection



Teamworking



Technical Challenges



Learning & Growth



Innovative Thinking