

REVIEW 1

By Silver Mindbot

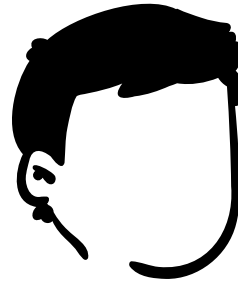


TEAM



Anandakumar
Kavyakrithika

- Sales
- Finance



Long Hoang

- Visionary
- Operations



Shi Wei

- Technology

Silver Mindbot

Vision

To become the world's most trusted companion for the elderly, bringing comfort, joy, and dignity to aging through intelligent care.



The background of the slide is a collage of images. On the right, a large photo shows an elderly woman with short white hair and glasses, wearing a light blue sweater, sitting in a wooden chair and holding a black walker. On the left, there are smaller, partially visible images: one of an elderly man's face, and another of a robotic arm with a blue and white gripper.

Silver Mindbot

Mission

To create emotionally intelligent robots that provide meaningful companionship, mental well-being, and daily support to the elderly—enabling them to live fuller, happier, and more connected lives.

Silver Mindbot

Goal

To ensure that every elderly person can enjoy the comfort of intelligent companionship.



OUTLINE

- Problem
- Market Size
- Competition
- Product
- Product features
- Pretotype
- Validation Methodology

CONTEXT

1/5

Of Singaporeans are
aged 65 and above.

83,000

Elderly
Singaporeans will be
living alone in 2030.



PROBLEM

THE STRAITS TIMES

SINGAPORE

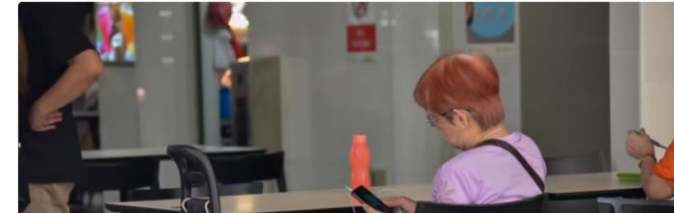
More seniors in Singapore calling
helpline over loneliness and mental
health concerns: Charity



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Commentary: Loneliness is an overlooked public health challenge in ageing Singapore

Countries like Singapore place an emphasis on self-reliance, making it difficult for individuals to acknowledge their loneliness and seek support, say researchers from Centre for Ageing Research & Education, Duke-NUS Medical School.



Angelique Chan

Rahul Malhotra

Ad Maulod

11 Jul 2023 06:00AM
(Updated: 11 Jul 2023 08:24AM)

"Loneliness" & "Social Isolation"

PROBLEM

To Glen, the sad thing about his uncle's death and those who have died at home alone is that "there was no one there with them", he said in a previous CNA interview.

But these people are not necessarily living alone — they could be living with their family, yet feel lonely.

She pointed out that the sense of community in Singapore has declined because of the living environment and urban design.

The response during the trial in Yuhua was good, but over time, the number of subscribers has dropped until a "very small group" is left now, he added. "The elderly sometimes said they didn't want to be monitored."

She thinks such a set-up is a model for the future — though it does not come cheap, costing up to S\$2,000 a month.

- Lack of
Companionship.
- A Need for
a Personal and
Affordable Solution.

CUSTOMER PROFILE

83,000

Singaporeans who are
aged 65 and above who
live alone.

62.4%

who have mobility issues.



78%

who are digitally savvy.

1 in 5

have early signs of
depression and anxiety.

ALTERNATIVES & THEIR SHORTCOMINGS



- ✓ Home Medical Services
- ✓ To train caregivers on providing both emotional and physical support for elderly.
- ✗ A minimum group size of six participants are required.
- ✗ Limited Awareness.



- ✓ Recreational and learning activities are offered.
- ✓ Befriending services for elderly who live alone.
- ✗ Low staff-to-senior ratio.

ALTERNATIVES & SHORTCOMINGS



Call for emotional support and practical help around the house.



Hotline is only available on weekdays from 9am to 5pm only.



Lack of elderly volunteers.



Mental-health screening and home-based clinical visits.



Only Diagnosed seniors are supported & limited availability.



Professional referral required & Charges apply.

EMOTIONAL IMPACT



Elderly unaware of current solutions may suffer in silence.



Insecurity about the future availability of services.



Seek help less often to avoid being a burden.



Avoid seeking professional help due to financial difficulties.

QUANTIFIABLE IMPACT

Significantly High Suicide Rate

151 to 107

From 2022 to 2023 for seniors aged
60 and above

Suicides by age group from 2019-2023

● 2019 ● 2020 ● 2021 ● 2022 ● 2023

Total deaths by suicide

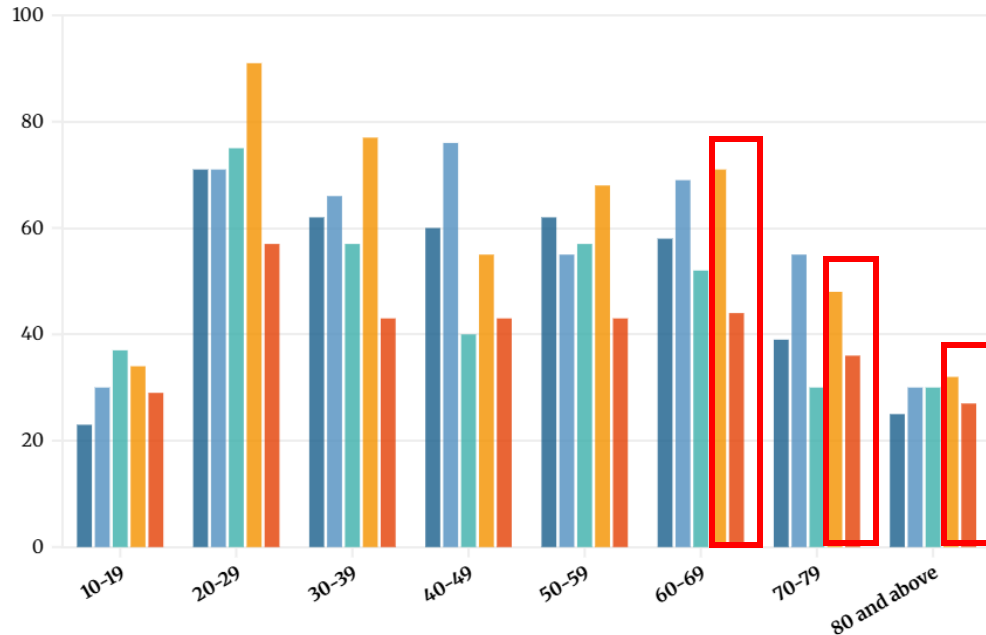


Chart: Clara Ho
Source: Samaritans of Singapore, Jul 12, 2024



Reduced Life Expectancy

3-5 years

Of life expectancy at age 60
compared to peers

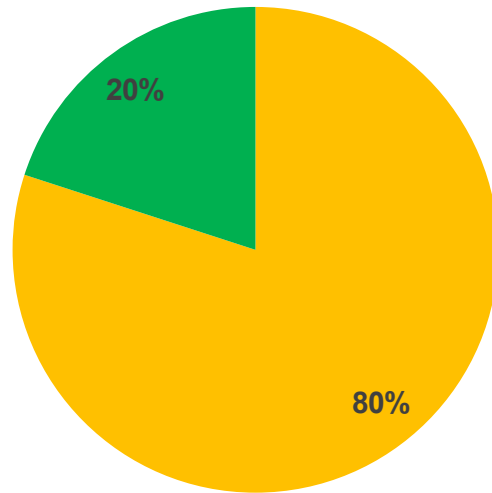
3-4 years

Of life expectancy at age 70
compared to peers

QUANTIFIABLE IMPACT

Large Treatment Gap

Treatment Gap



■ Seniors who did not receive treatment ■ Seniors who received treatment

About < 30% ¹

Who had depression and anxiety disorder
received formal treatment.

High Healthcare Costs

About nearly

\$7,940 ²

Spent in annual healthcare costs
for seniors with depression and
chronic illnesses.

1. *Subramaniam, M., Abdin, E., Vaingankar, J.A., Shafie, S., Chua, H.C., Tan, W.M., Tan, K.B., Verma, S., Heng, D. and Chong, S.A. (2019). Minding the treatment gap: results of the Singapore Mental Health Study. Social Psychiatry and Psychiatric Epidemiology, [online] 55(11). doi:<https://doi.org/10.1007/s00127-019-01748-0>.*
2. *Neo, J.W., Guo, X.Y., Abdin, E., Janhavi Ajit Vaingankar, Chong, S.A., Subramaniam, M. and Chen, C. (2024). Excess costs of depression among a population-based older adults with chronic diseases in Singapore. BMC Public Health, 24(1). doi:<https://doi.org/10.1186/s12889-024-20306-1>.*

PROBLEM STATEMENT

Develop an affordable personal companion for the elderly to alleviate loneliness and provide companionship.

OUTLINE

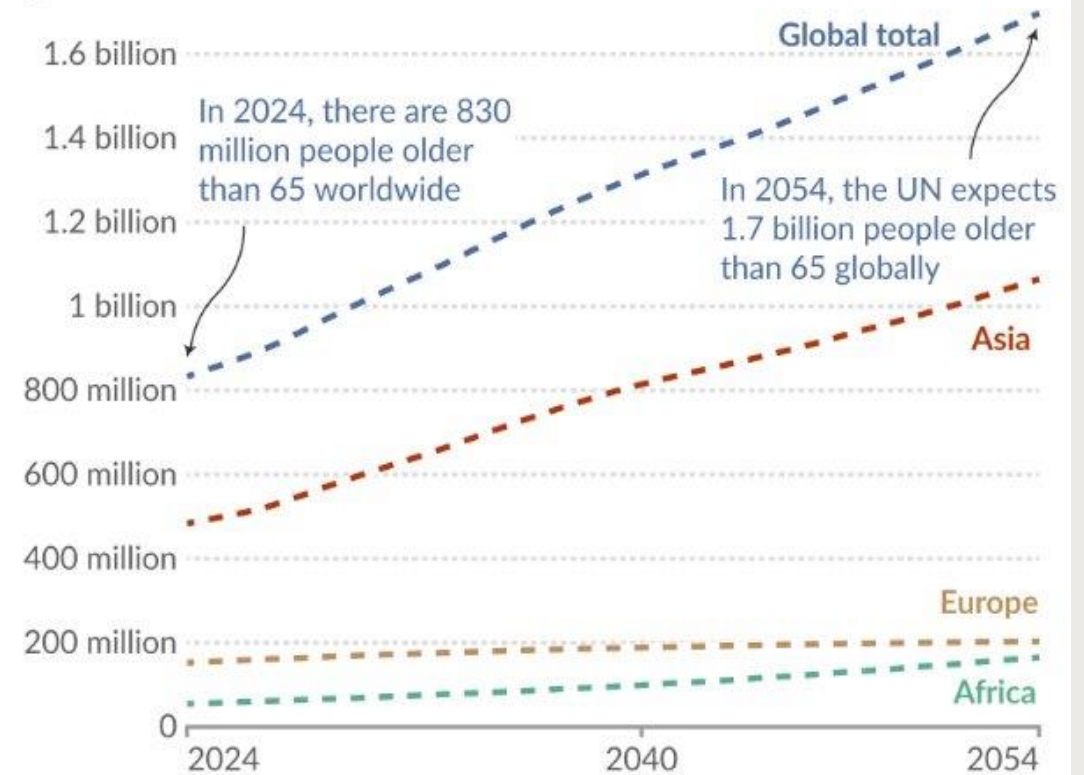
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TOTAL AVAILABLE MARKET (TAM)

- The global elderly population is projected to grow from 830 million in 2024 to 1.7 billion by 2054.
- The elderly market value is expected to double from S\$2.075 trillion (2024) to S\$4.250 trillion (2054).
- Personal care robots are priced around S\$2,500 each, indicating strong commercial potential.

Projected number of people aged 65 years and older

Our World
in Data



Data source: UN, World Population Prospects (2024)

Note: Projections from 2024 onwards are based on the UN's medium scenario.

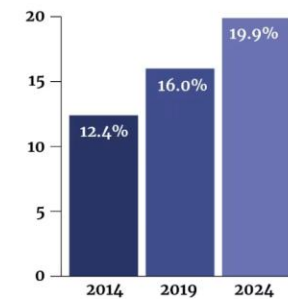
OurWorldinData.org/population-growth | CC BY

SERVICEABLE ADDRESSABLE MARKET(SAM)

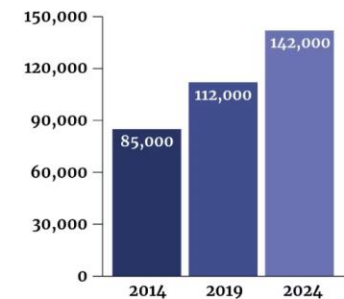
- About 142,000 elders in Singapore in 2024, if it is S\$500 for each robot after subsidy, it should be estimated to be around S\$71 million.

Singapore's ageing population (2014-2024)

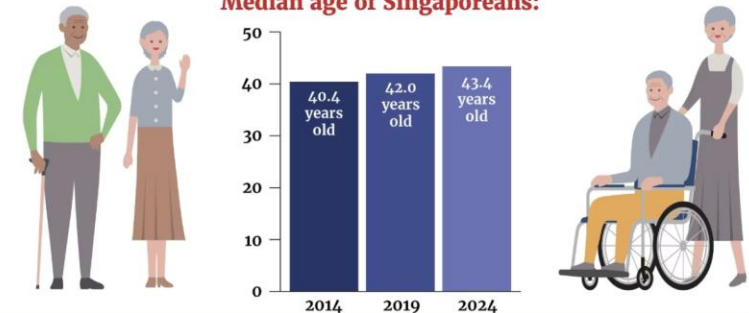
Singaporeans aged 65 and above:



Singaporeans aged 80 and above:



Median age of Singaporeans:



Infographic: Nurjannah Suhaimi
Source: Prime Minister's Office — Population in Brief



SERVICEABLE OBTAINABLE MARKET (SOM)

- **Nuwa Robotics:** a senior-friendly social robot.
- **Lovot:** a robot keeps you company, and keep track of your activities to your family.
- **Paro:** a therapeutic robot that responds according to the actions of the user.
- **Companion Pet:** robots imitate animals such as dogs, cats,...



Nuwa Robotics



Lovot



Paro



Companion Pet

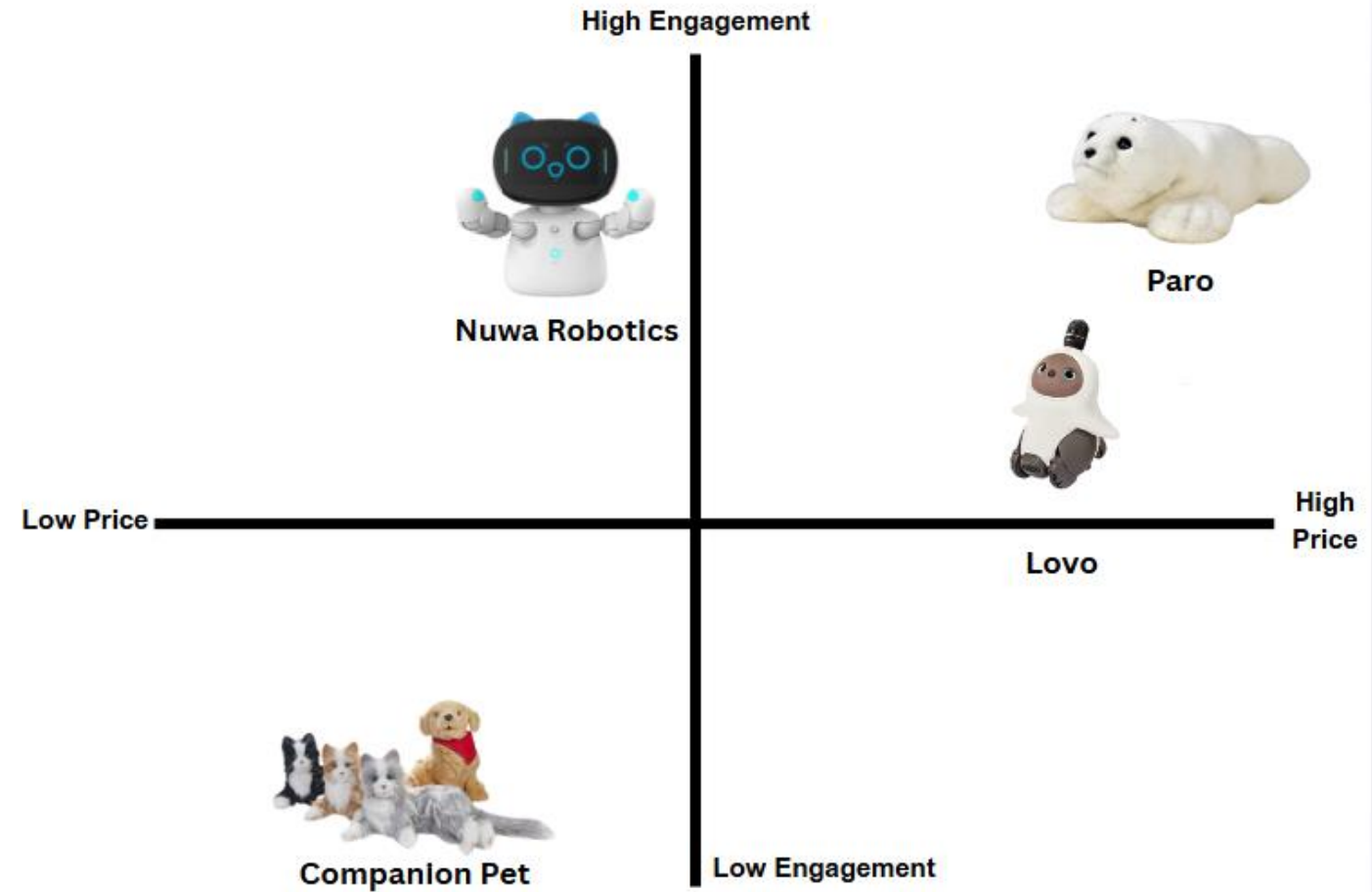
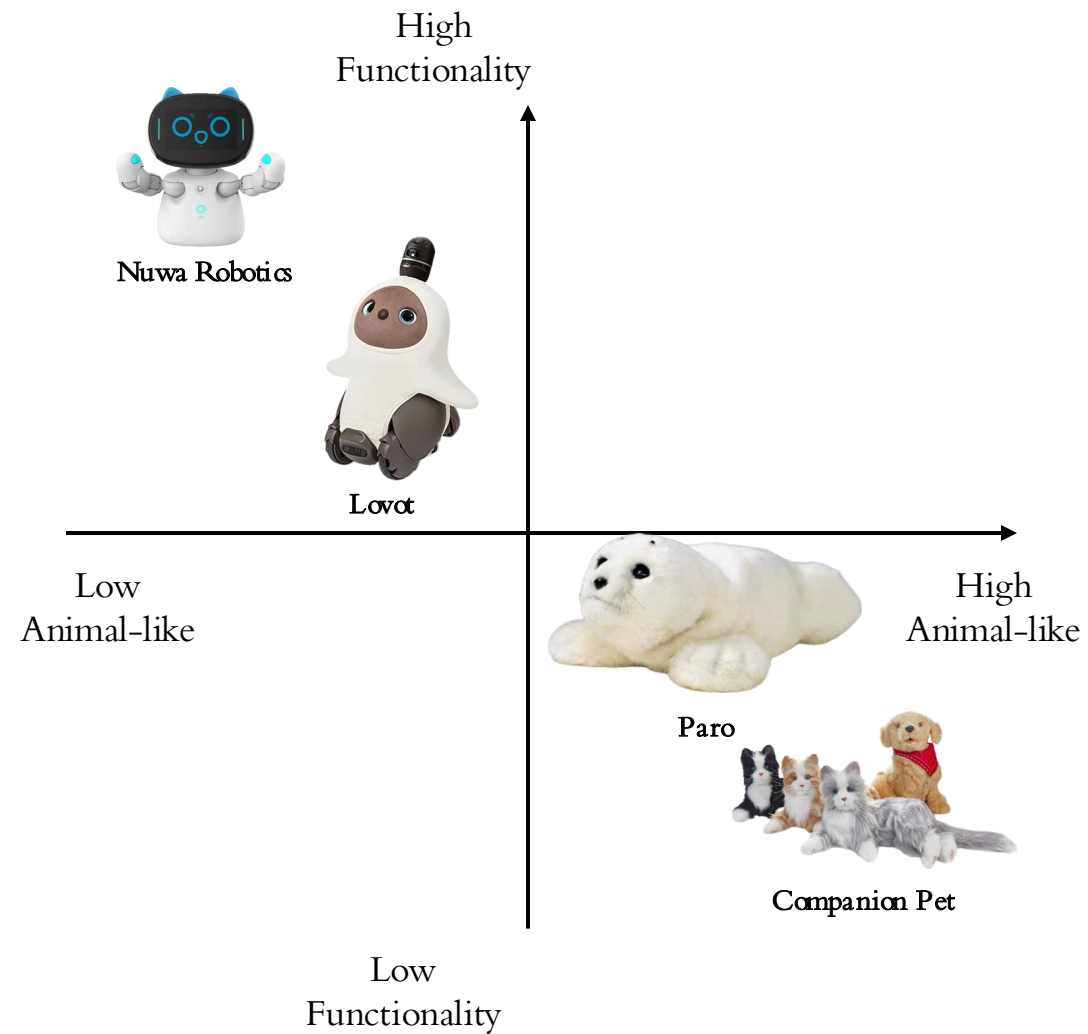
Our expected adoption ratio: 5%

$$\Rightarrow \text{SOM} = 0.05 \star 71 = \$\$3.55 \text{ million}$$





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COMPETITIVE MAPPING

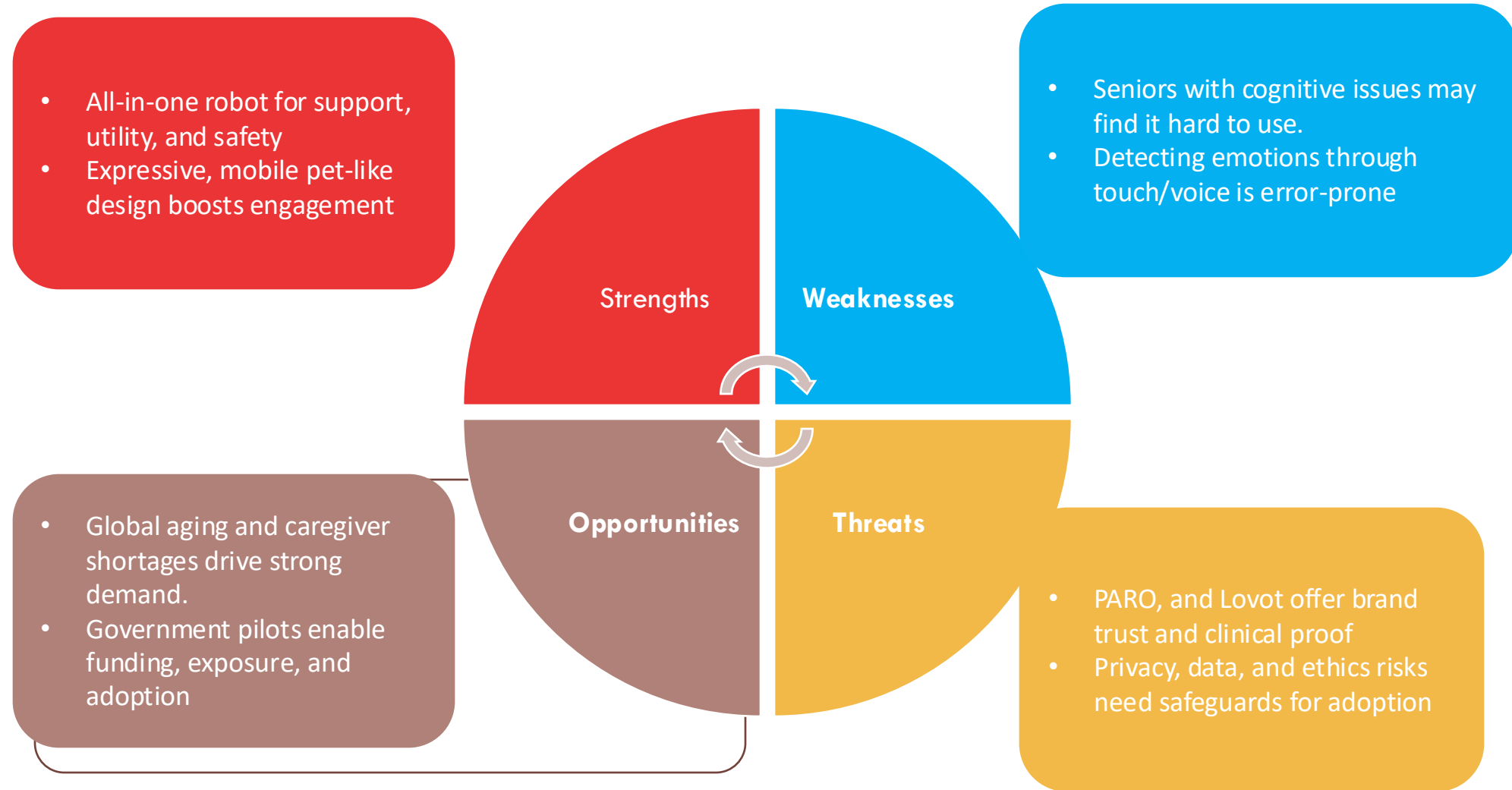


COMPETITIVE ANALYSIS



Company	Primary Focus	Commercial Availability	Key Differentiator
Nuwa Robotics	Interactive social robots for seniors	Taiwan, Singapore	Localized content and elderly-friendly design
Lovot (Groove X)	Pet-like emotional bonding robot	Deployed in Japan; piloted in SG elder care	Evokes affection through expressive behavior
Paro (AIST)	Seal-shaped robot for calming tactile therapy	Used globally and in SG homes since 2013	Clinically proven for dementia; responsive, animal-like comfort
Companion Pet (Ageless Innovation)	Animatronic pets for calming companionship	Globally available online; Budget friendly	Zero setup; emotional care via realistic features

SWOT ANALYSIS



WHY NOW? THE PEST FRAMEWORK



Political:

- Government support for aging-in-place initiatives (Smart Nation, AIC, IMDA).



Economic:

- Growing eldercare expenditures in both public and private sectors.
- Startup funding opportunities and innovation grants (ESG, NRF).



Social:

- Rapidly aging population: 1 in 4 Singaporeans will be 65+ by 2030.



Technological:

- Advancements in conversational AI, emotional recognition, and sensors.

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PRODUCT[A ROBOTIC PET COMPANION(RPC)]

An Interactive Companion at home.

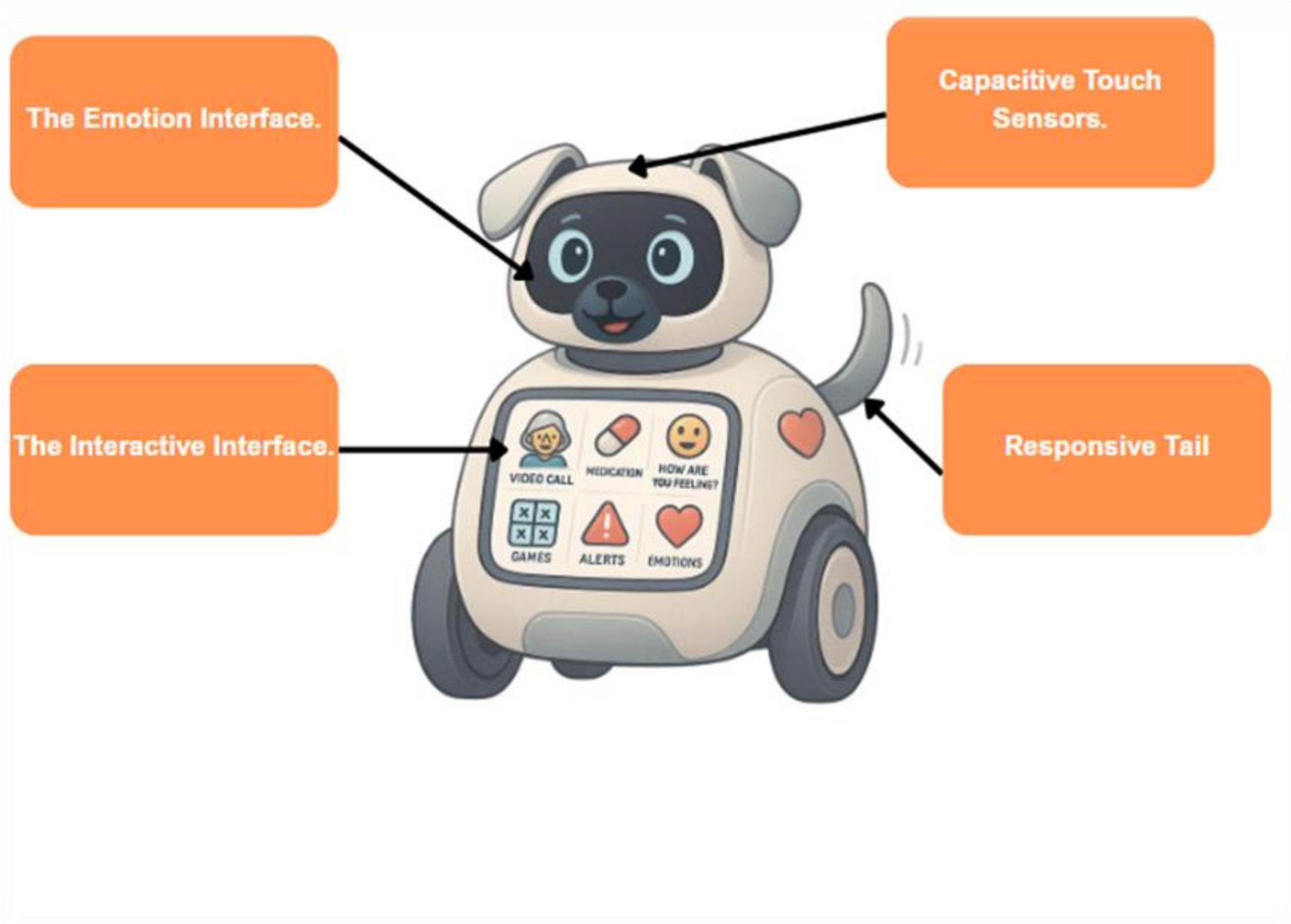
Detect emotions better.

Easy to use.

Product Strategy: Affordable for seniors[Niche Market].

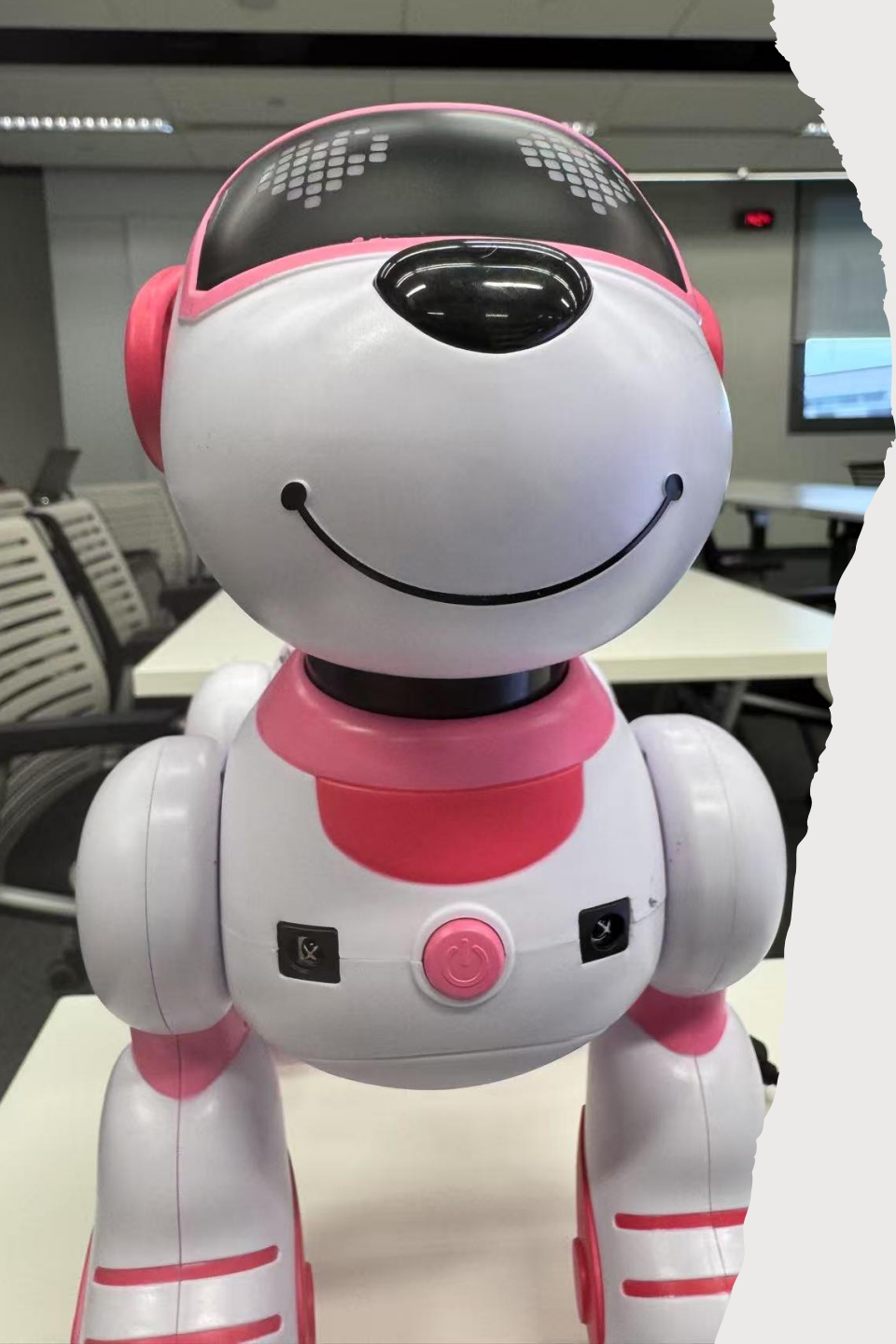


FEATURES



OUR ADVANTAGE

Our RPC is a more affordable and interactive companion that responds better according to the seniors' emotions.



PRETOTYPE

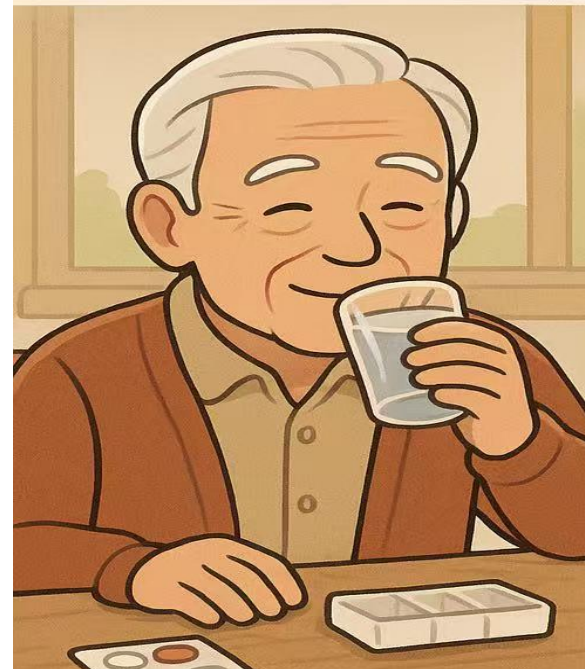
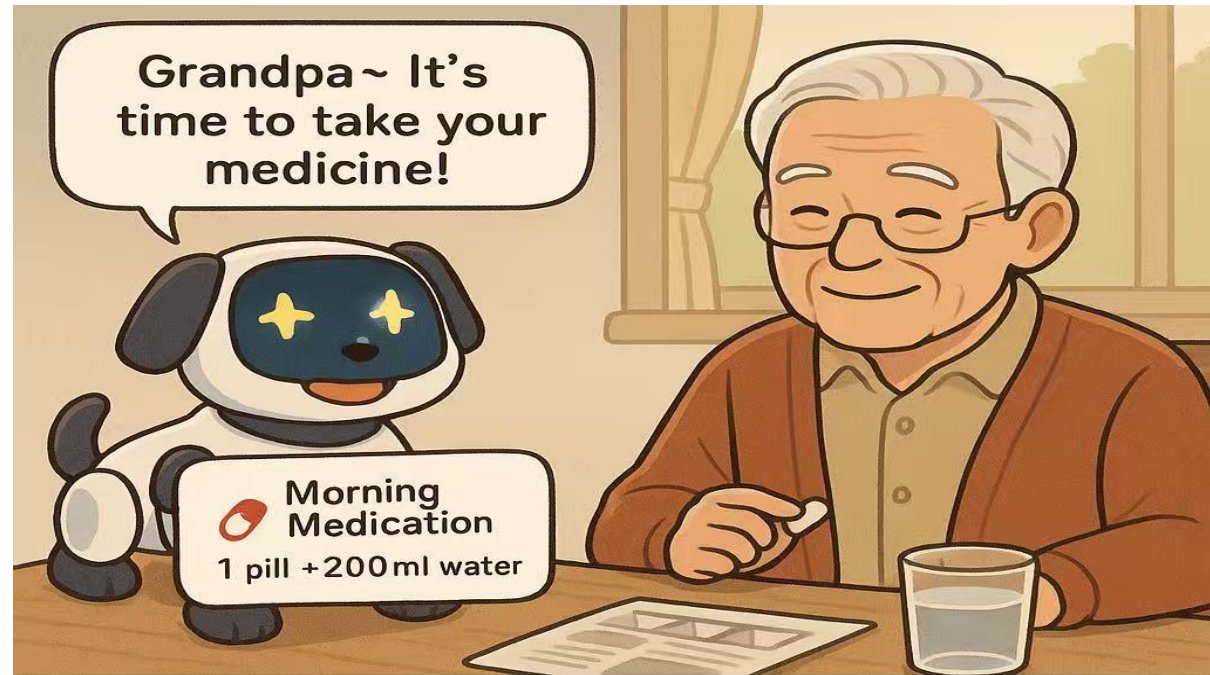
- The Re-label: Put a different label on an existing product

CASE 1: EMERGENCY ALERT

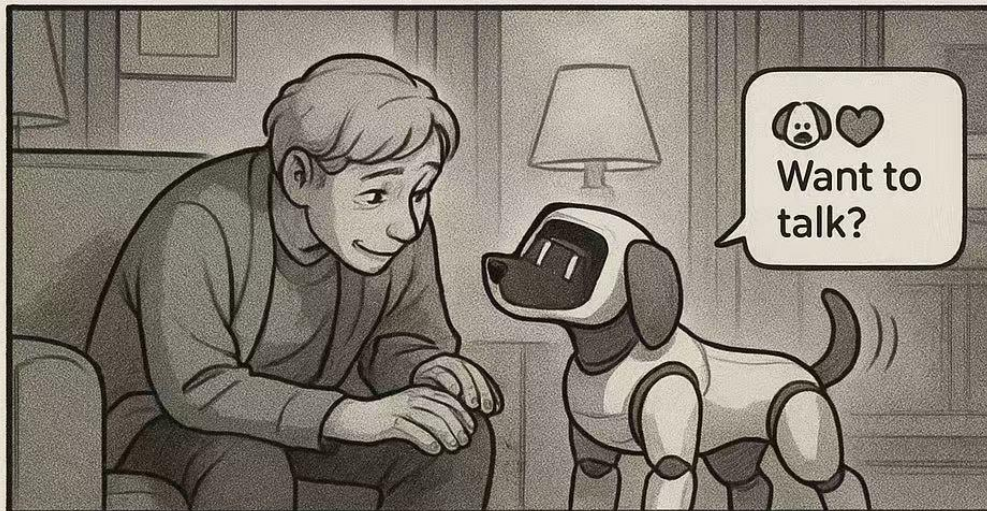
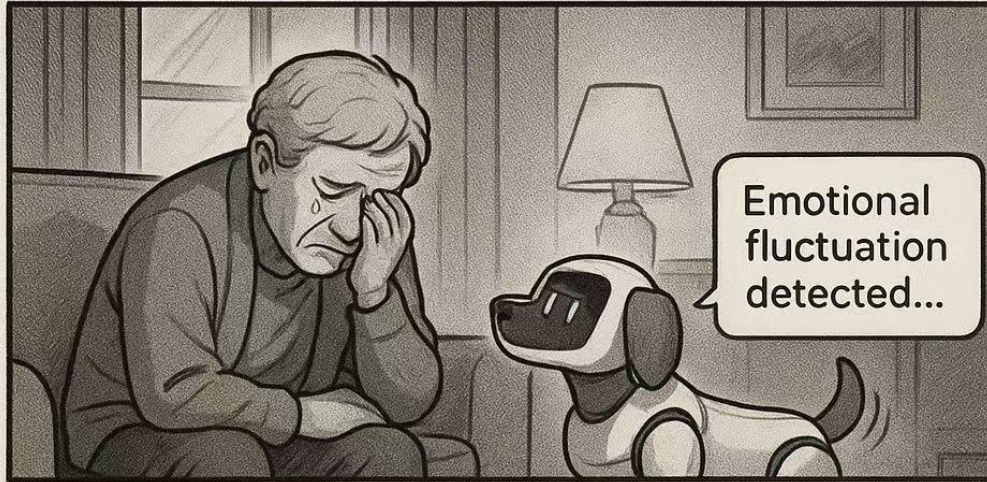


Equipped with an integrated emergency response system

Case 2: Daily reminder



Case 3: Daily Emotional Interaction & Companionship



The robotic dog detects emotional changes through voice and movement analysis, providing comfort through touch and visual feedback.

VALIDATION METHODOLOGY



Objectives

- Evaluate emotional impact, usability, and caregiver support
- Validate key features (mood check-ins, alerts, reminders).



Participants

- 20–50 elderly (65+), mixed mental health profiles.
- Settings: homes, senior centers, nursing homes



Study Design

- Duration: 4–6 weeks
- Daily logging
- Weekly interviews + surveys



Success Criteria

- 20% drop in loneliness, depression scores.
- 70%+ usability satisfaction.
- 80% user and caregiver approval.

THANK YOU



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