

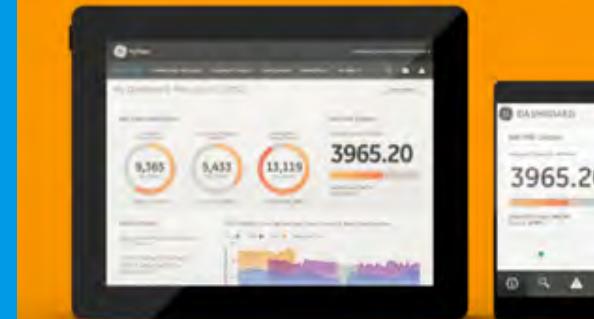


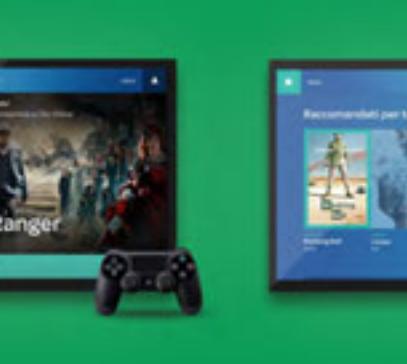
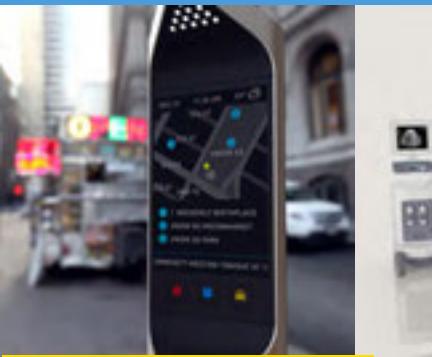
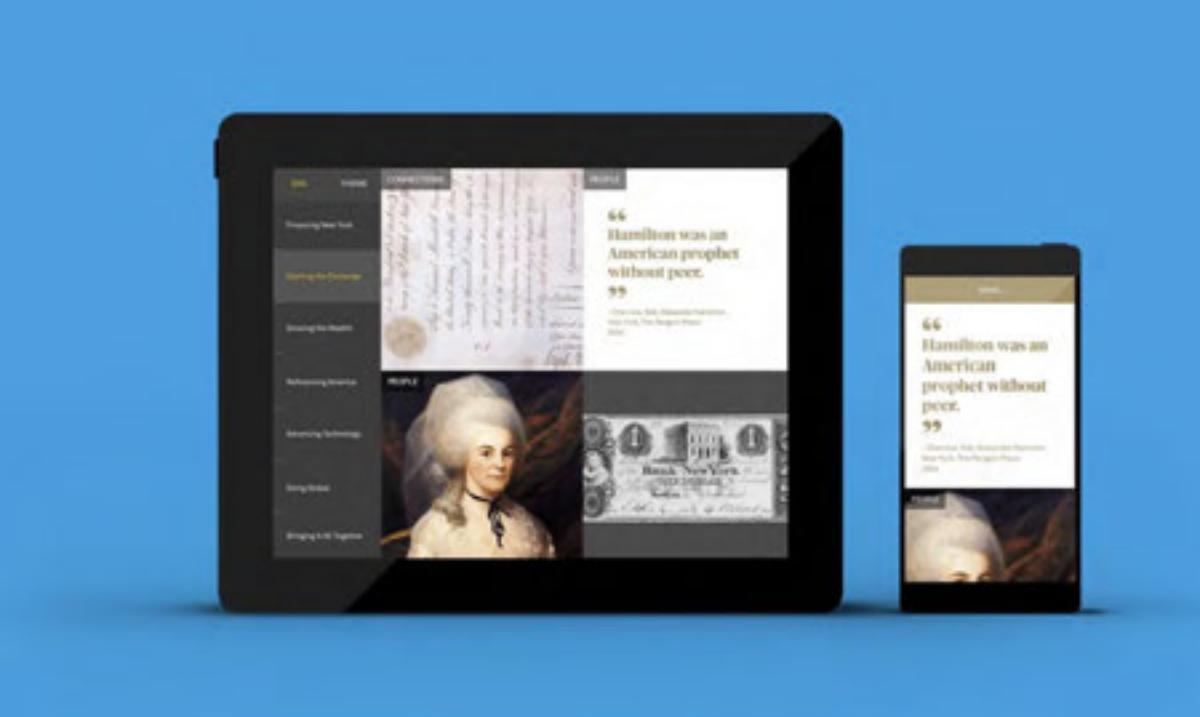
AGING BY DESIGN SINGAPORE

A FROG SALON · MARCH 2015



FROG IS A GLOBAL PRODUCT STRATEGY AND DESIGN FIRM





REACH

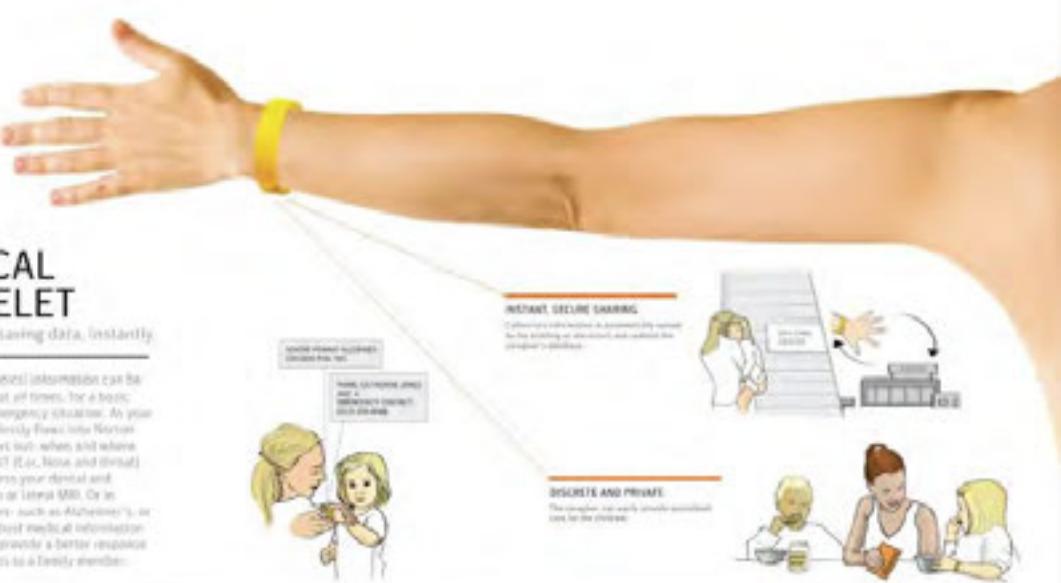
We are more than 600 strategists, researchers, designers, and technologists who partner with clients across industries and geographies.





UNDERSTAND PEOPLE WITH IMMERSIVE RESEARCH METHODOLOGIES

Design research is rooted in understanding human motivation. Our methods provide inspiration and information to envision product and market opportunities. We interview, observe and carefully document attitudes and behaviors in the context in which the design solution will be used.



MEDICAL
BRACELET

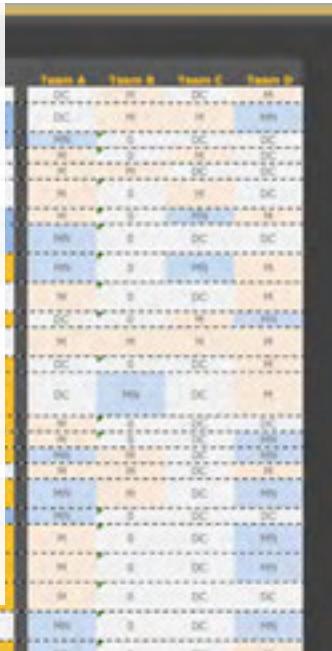
Access to life-saving data, instantly.

more complete medical information can be accessibility to you at all times. For a basic check-up or an emergency situation, An **your information** substantially **reduces time** from **Normal Health**. It also allows you when and where you need it. An ECG (EKG, Heart and blood) physician can access your dental and **orthodontic records** or **Lateral X-Rays**. Or an **special needs records** - such as **Alzheimer's**, or **Epilepsy**. **proper medical information** on a **hospital card** can provide a better response or **immediate access** to a **Dental specialist**.



INTEGRATE BUSINESS PERSPECTIVE INTO DESIGN

We help clients growth their business by developing strategies, analyzing the market context, competitive and comparative landscape and evaluate business implication of innovative product and service portfolios and services.



TRUSTED LIFE SERVICES: BUSINESS IMPERATIVES

PEOPLE
ARE MORE
DIVERSE
THAN
COMPUTERS

THE WHOLE
IS GREATER
THAN THE
SUM OF ITS
PARTS.

From Plastic to Pixels

The cloud as the center of the universe

Is **Estate B** in your view? Please rate the Estate's judgement of how likely this will become reality.

Highly likely to happen

Likelihood of Endstate B Incorporating a modifier

Highly ~~unlikely~~
to happen.

ers. Endstate II offer attractive and interesting opportunities for Symantec/Norton? Please rate the Endstate based on your opinion of how attractive the opportunities for Symantec/Norton will be if this Endstate comes to pass.

Attractiveness of
Highly attractive
opportunities

Telepresence Devices are hot, 60% of households now have some telepresence capabilities

Studies show that 60% of US households have made a telepresence call in the last week; 6 devices selling like hotcakes for telepresence.



COLLABORATE TO BUILD CAPACITY FOR SUSTAINABLE INNOVATION

We bring our clients, end-users, and outside experts in a cross-disciplinary design journey to understand needs, generate ideas, share perspectives, and shape new opportunities.



OUR WORK





WELCH ALLYN CONNEX MONITOR

The Connex Vital Signs Monitor (CVSM) is a portable monitoring device that reduces errors in patient information capture by offering all monitoring functions in a single system and communicating wirelessly to an electronic medical record.



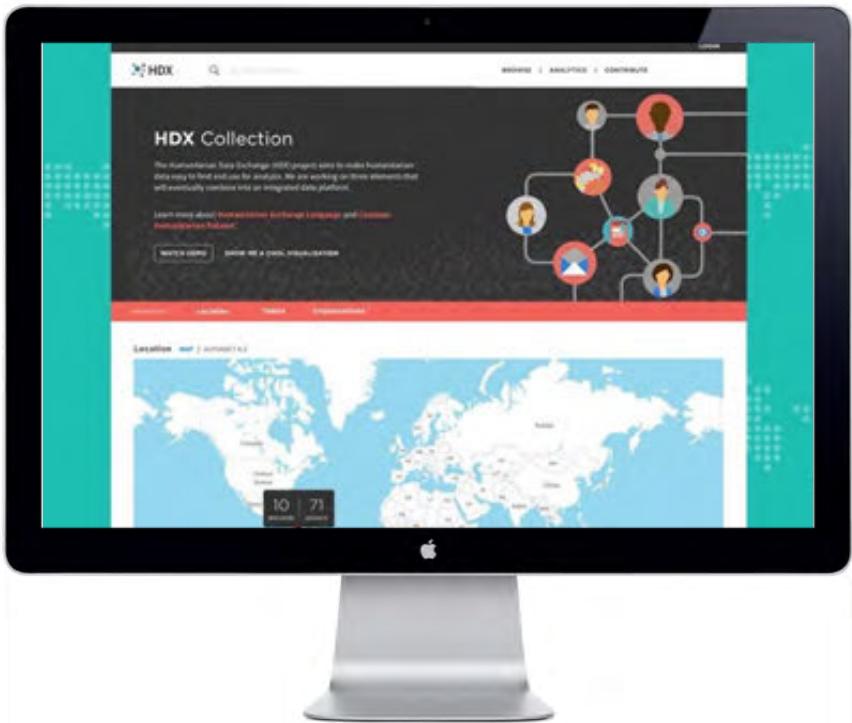


HONEYWELL

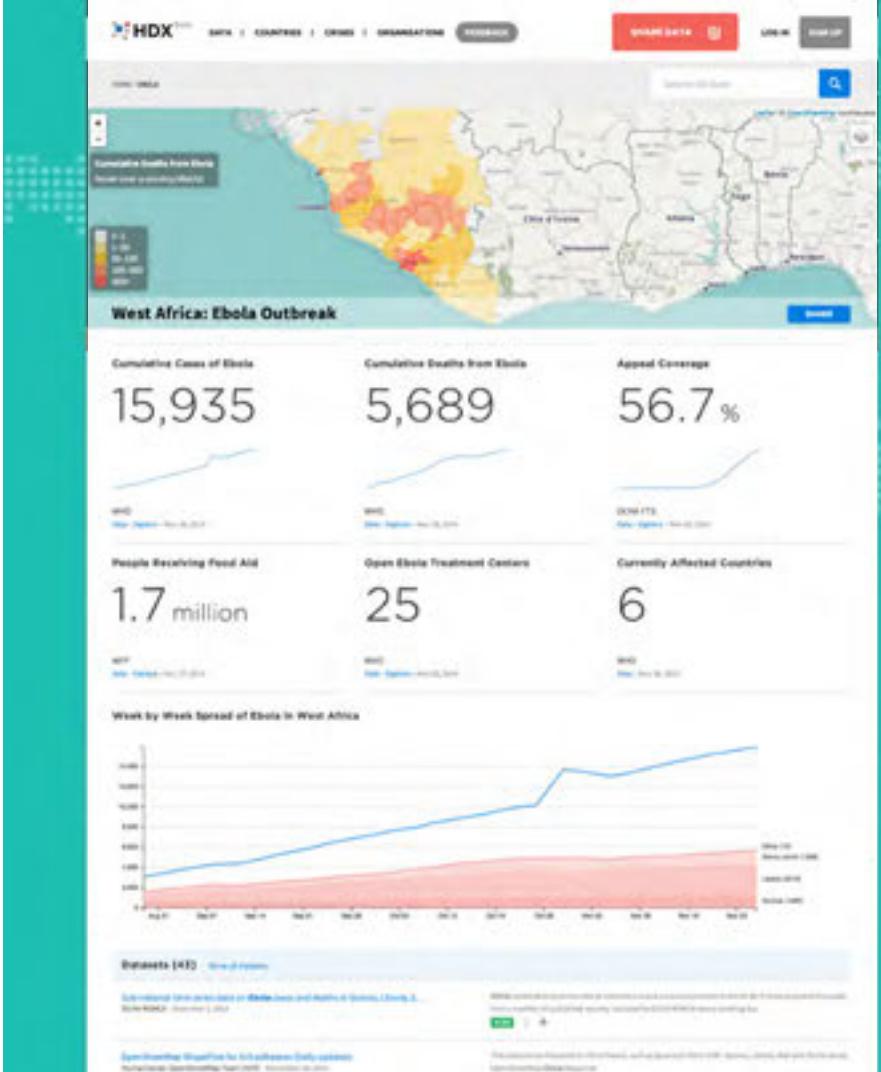
Honeywell asked frog to help create a vision for its connected home platform across its thermostat and security business units. frog's consumer insights and product concepts led to a user-centered home solution, Honeywell Lyric.

CONCEPT





UNITED NATIONS OCHA



The United Nations Office of partner with frog to design and create a Humanitarian Data Exchange (HDX) platform to help humanitarians use data to act fast and effectively.

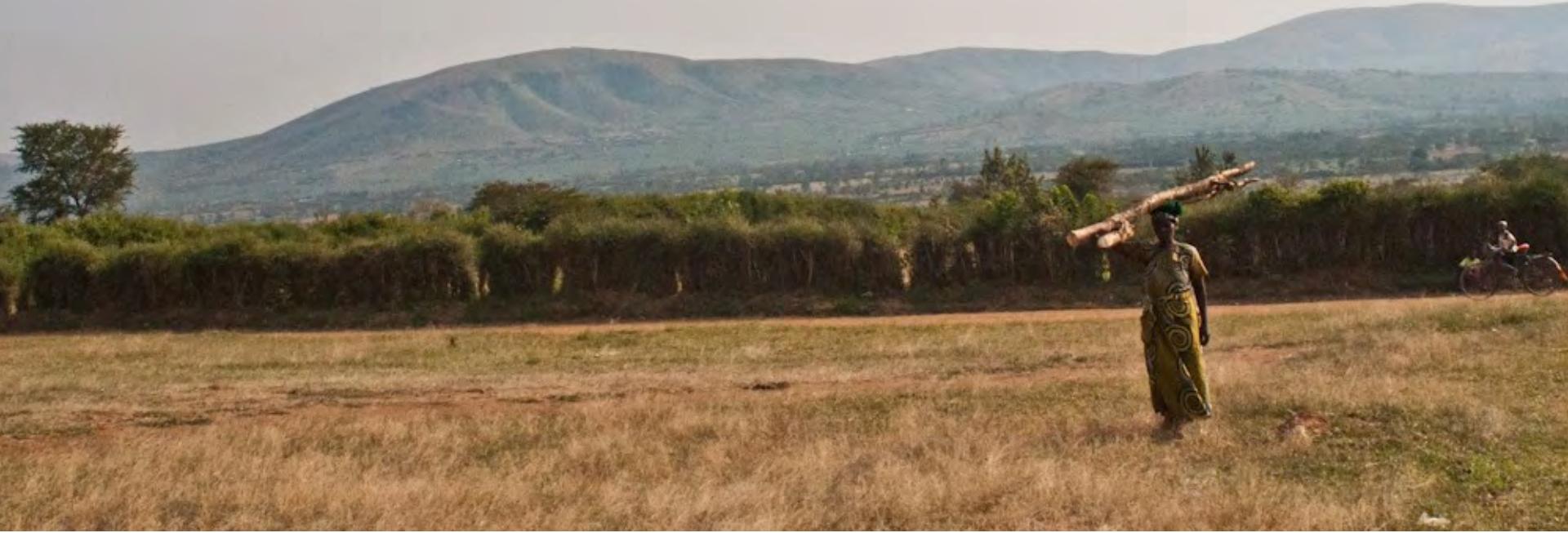
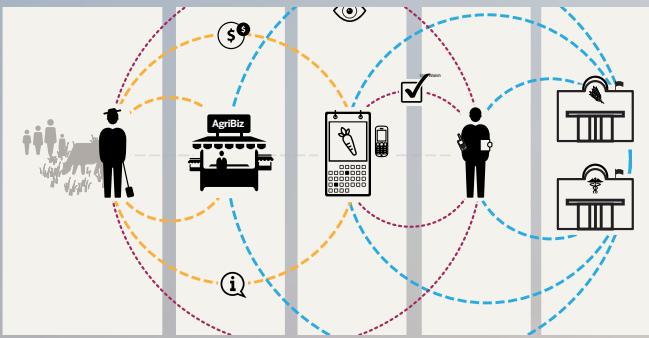




NEW MATTER

frog partnered with incubator Idealab and the founders of New Matter to co-develop the company's experience strategy and design – from branding and identity system to the design of a consumer 3D printer, marketplace, and application.





GSMA M-AGRI

GSMA and frog are currently partnering together to design mobile solutions for ~500 million small holder farmers across the world.





NYC BEACON PAYPHONE

frog reimagined the payphone to better connect New Yorkers with the city's essential services.



AGING BY DESIGN IN SINGAPORE



Seniors will soon outnumber any other demographic bracket.

Today, about 11% of the Singaporean population are 65 years or older. In comparison, the share of up to 15 year-olds is 16.4%.

~430,000

Singaporean population above 65 today



900,000

Singaporean population above 65 in 2030



The cost of care, traditionally a model for the world, is rising fast.

If national health-care expenditure is \$7.5 billion today, what will it need to be by 2030 with more than double the number of seniors?

\$4 billion
FY2011



\$7.5 billion
FY2014





OUR SPEAKER



LINDSEY MOSBY
EXECUTIVE STRATEGY DIRECTOR

Lindsey Mosby is Executive Strategy Director of the Healthcare Practice at frog. Four years a frog, Lindsey has been working in Healthcare for more than 10 years, partnering with organizations like Philips Healthcare, Merck, Roche, Medtronic, UNICEF, Kaiser Permanente, AARP and many others on their strategic planning, experience strategy, and product and portfolio innovation.

Experienced in the methods and practices of major medical players and young, entrepreneurial healthcare start-ups alike, Lindsey collaborates with such groups through highly complex initiatives, employing design strategy, research and business rigor to the ideation and creation of new healthcare products and services.

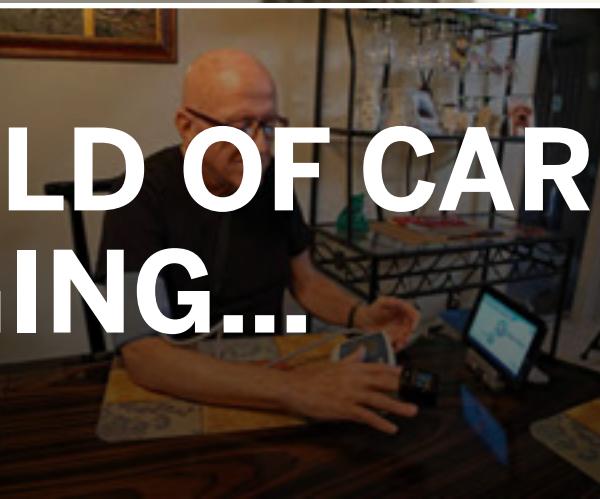
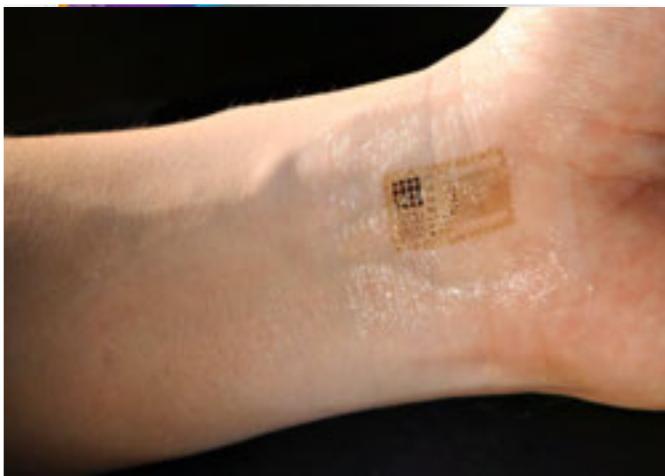
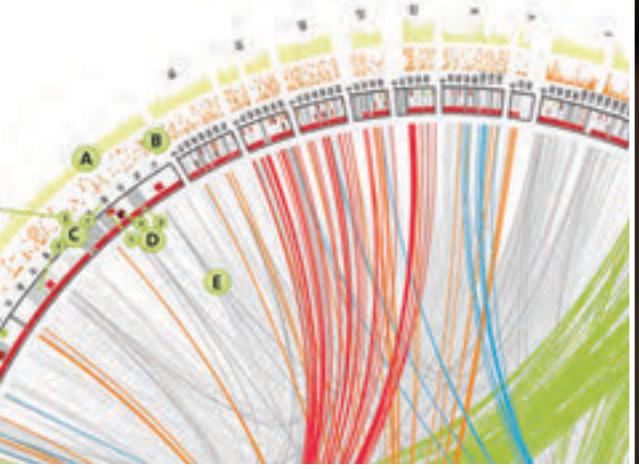




AGING BY DESIGN UNITED STATES

A FROG SALON · MARCH 2015





THE WORLD OF CARE IS CHANGING...



**AND IT CAN'T
COME SOON ENOUGH**





**SAVVY HEALTHCARE
LEADERS UNDERSTAND
THAT EXPERIENCE IS KEY**



AGING IN AMERICA





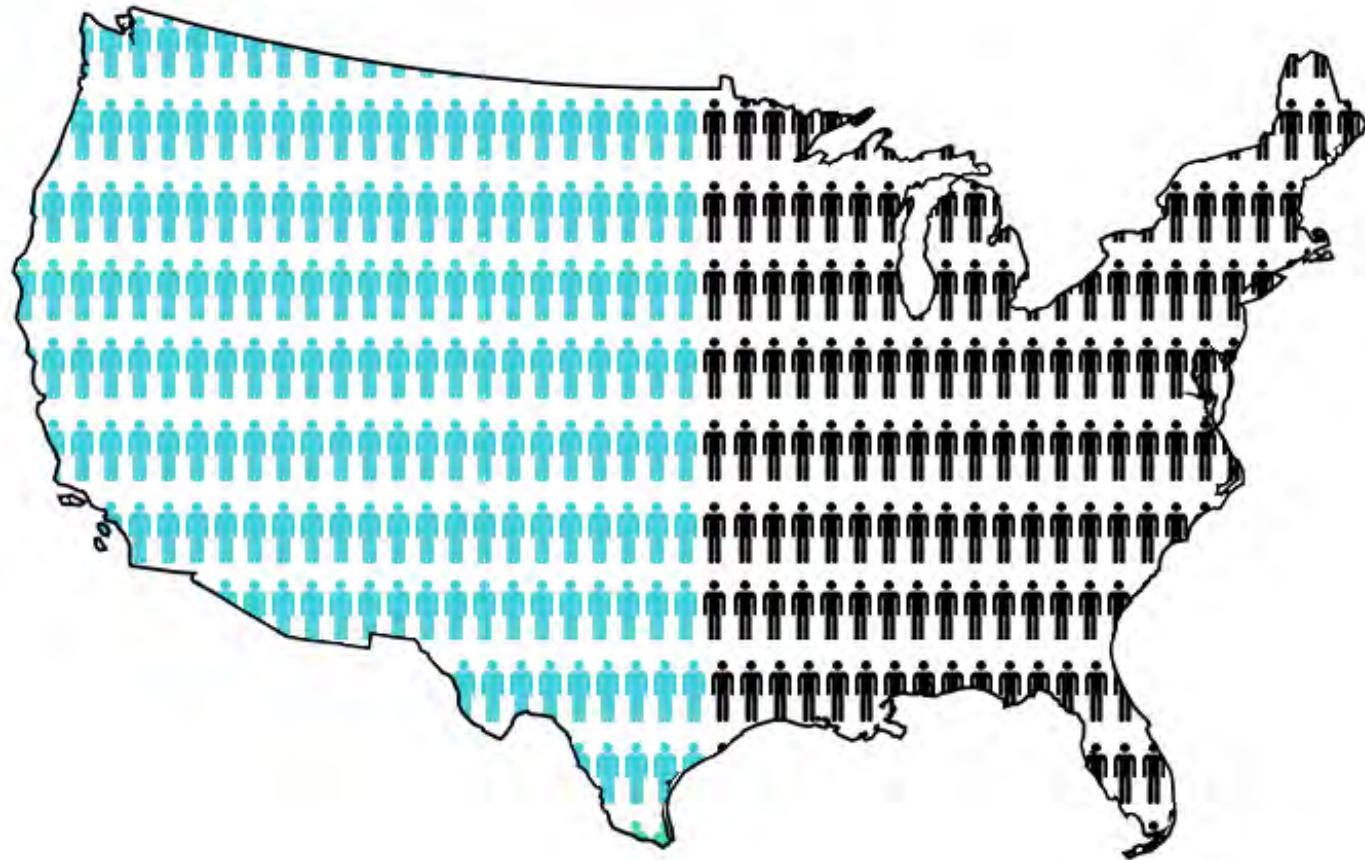
NOT YOUR EXPECTED ELDERLY





2015 = 100M 50+ AMERICANS





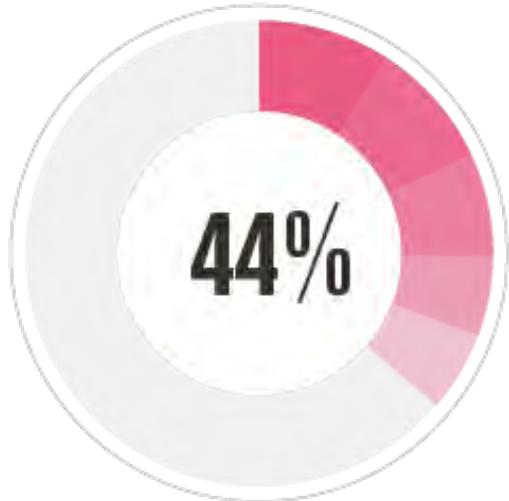
2030 = 130M 50+ AMERICANS



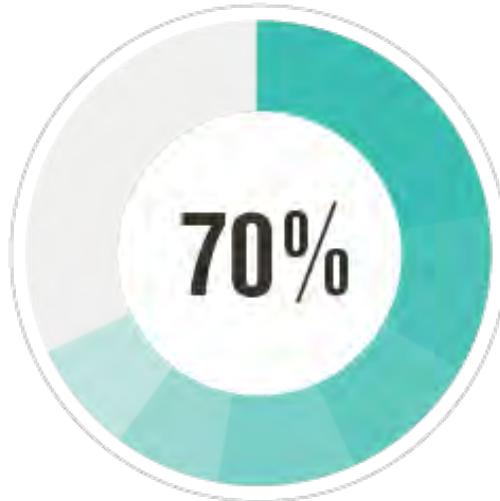
**TV DINNERS &
MOON LANDINGS.
CIVIL RIGHTS &
WOODSTOCK. THE
POST- WAR PRIVILEGED.**

**THE ORIGINAL
INNOVATION
GENERATION.**

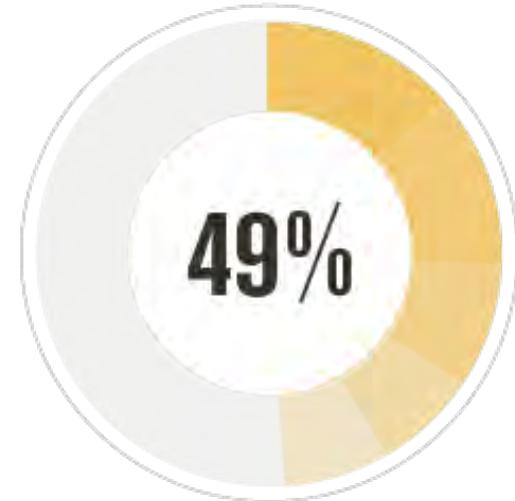




POPULATION



DISPOSABLE INCOME



SPENDING ON CONSUMER GOODS

BOOMERS ARE BUYERS





**53% of Boomers
are on Facebook**



A close-up photograph of a man with a full, grey beard and glasses, wearing a dark hoodie. He is looking down at a blue smartphone he is holding in his hands. In the background, there is a colorful, geometric wall and another person sitting at a table with papers.

**41% of Apple
customers are Boomers**



A group of senior citizens are playing basketball in an indoor gymnasium. In the foreground, two men are in focus. One man, wearing a white t-shirt under a black tank top with "COLBURN" and the number "5" on it, is leaning forward with his arms outstretched, attempting to steal the ball from another player. The other man, seen from behind, wears a yellow t-shirt with "BOONE" and the number "33" on it, along with "75+" indicating he is in the 75+ age group. He is holding a red basketball. In the background, several other players are visible, some wearing jerseys with numbers like "1" and "42".

**45% of people aged
65-74 engage in regular
physical activity**





**Their kids are caught
in the middle**



**OVER 90% OF THOSE
AGE 65 AND UP WANT
TO STAY IN THEIR
HOME FOR AS LONG
AS POSSIBLE.**



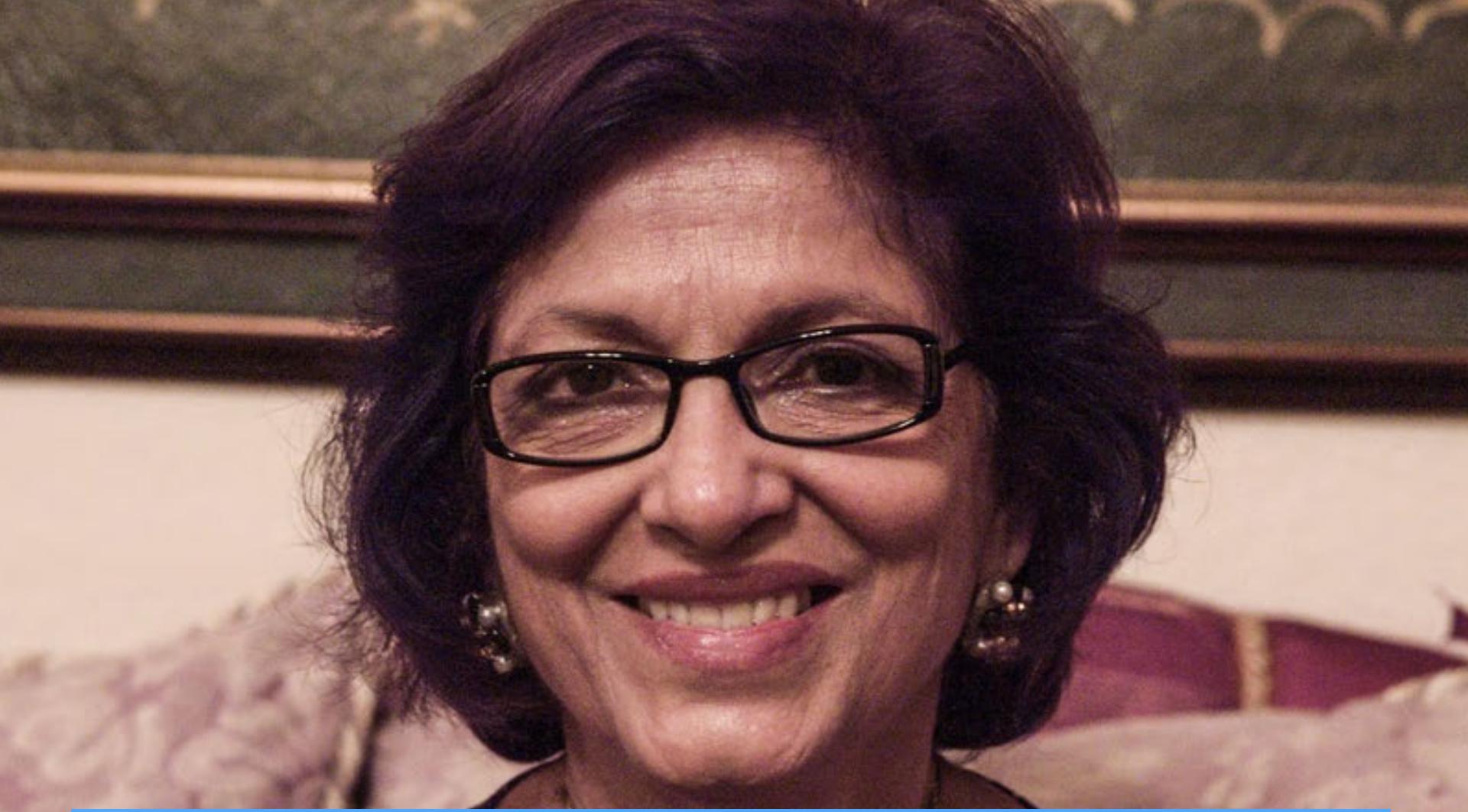


**NURSING HOMES ARE
CONSIDERED WORSE THAN DYING**



WHAT RESEARCH SHOWED US





SOPHIA has taken care of her husband, Salvadore, for the past 23 years of their 50 year marriage. In 1990, a diabetic episode resulting in a fall completely turned their world upside down. Once the provider for the family, Salvadore now struggles. Even as he retreats, Sophia continues to lead an active and engaged life. Sophia's days are difficult – she must balance her own vitality against the exhausting task of caring for Salvadore's failing health and optimism. Even so, she remains positive; "Friction is fun," she says.





Once the breadwinner for his family, **SALVATORE** now works to make himself participate in the life he used to love. Tremendously dependent on Sophia to care for him, Salvatore is often frustrated and depressed with his inability to take care of himself. The good days are precious to both of them as they reclaim bits of their earlier years - cooking, eating, talking and enjoying small, daily routines. The bad days find Salvatore depressed and argumentative, in both physical and emotional pain.





In her late 80s, **BLANCHE** recently lost her husband of over 50 years, but through her faith, creativity, and zest for life, she's persevered. She plays piano, writes poetry on a typewriter, teaches bible study classes, and collects stuffed animals (she has hundreds). Once a week she drives her car to church, calling it "my day out". She gets about 5 hours of sleep a night because of the pain in her hip. To manage, she's customized two reclining chairs in different rooms and a daybed set up in her kitchen so she can catch her shows on the TV that sits on a countertop.





As the eldest daughter, **VIRGINIA** is the point person for her aging mother's care options. As her caregiver, Virginia concentrated on supporting and loving her mother after her father's death, protecting her from unnecessary arguments and pitfalls as her Alzheimer's became more advanced. Virginia makes the best of her mother's nursing home experience by duplicating precious family jewelry, giving her plenty of books and activities, and bending the truth when it is easier to appease her Mom's increasing confusion and demands.





As the only child, **JAMES** always anticipated being the primary caregiver for his parents. What he hadn't anticipated was how completely and totally his life would be changed as he assumed full care of his mother after his father passed away. No longer able to afford to live on her own, James brought his mother home to live with him. While he would never change this decision, he's very aware of how much of his own life he's had to put on the back burner. Now he wonders, who will take care of him?





MEET PEOPLE WHERE THEY ARE





LISTEN TO THEIR STORIES



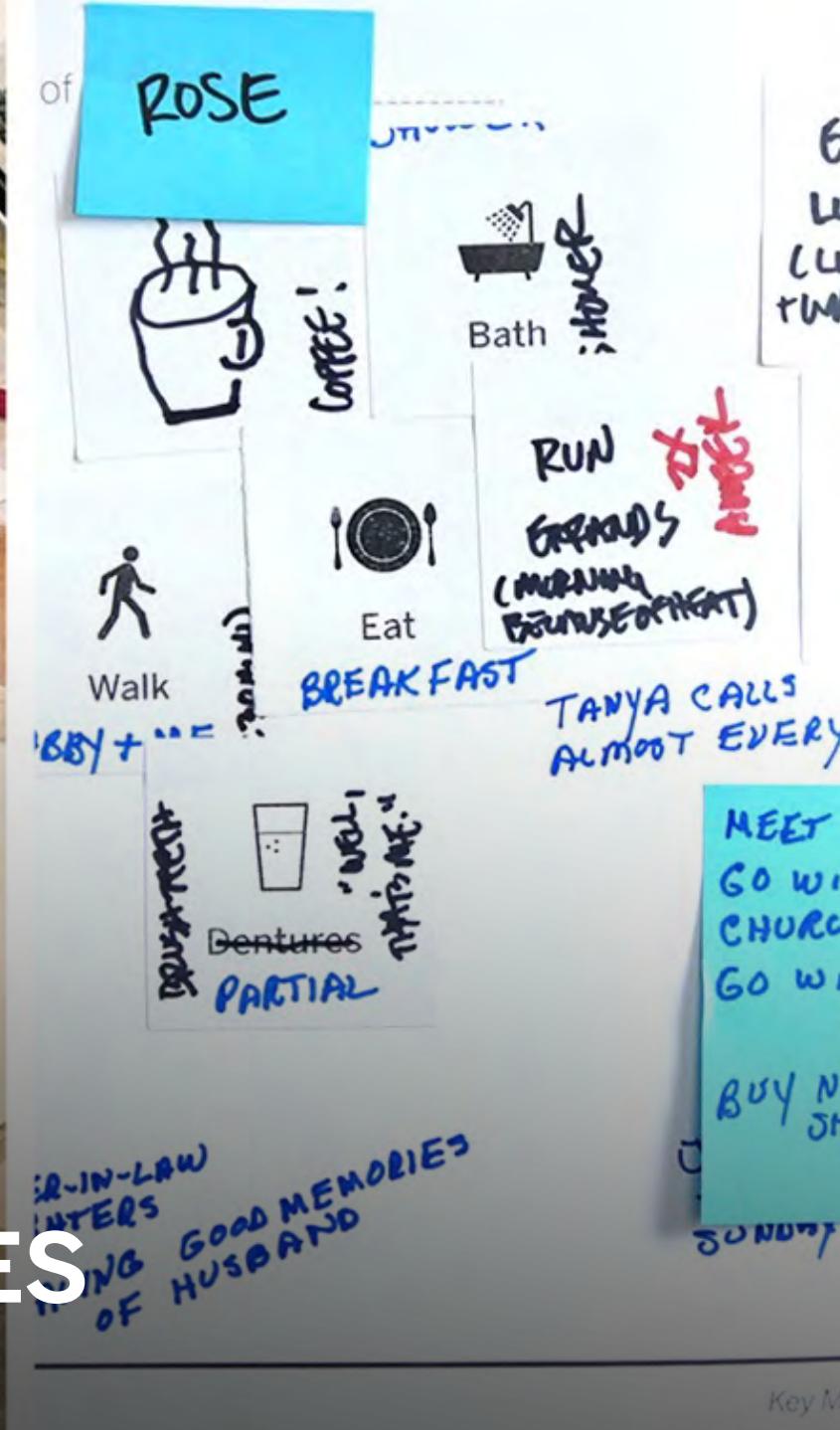


TRY TO EMPATHIZE





EXPLORE THEIR LIVES



Key M

**WHAT SENIORS
WANT IS CONTROL
OVER THEMSELVES,
THEIR SURROUNDINGS
AND THEIR LIFE
DECISIONS**



KEY OBSERVATIONS

1. People want to focus on what they CAN do, not what they CANNOT do.
2. Healthy aging is inextricably linked to social participation.
3. Home, as a lived-in space, is fundamental to the experience of aging.
4. The common perception that seniors are afraid of technology should be viewed with skepticism.



CORE NEEDS

Four needs emerged across the different seniors we interviewed and provided a foundation for building models to think through the problem (such as archetypes and a journey map) and generate product and service concepts.



Senior archetypes (US study)

THE INDEPENDENT



High functioning and able to stay at home alone.

THE TRANSITIONER



Mid functioning and recently moved to a senior community.

THE STRUGGLER

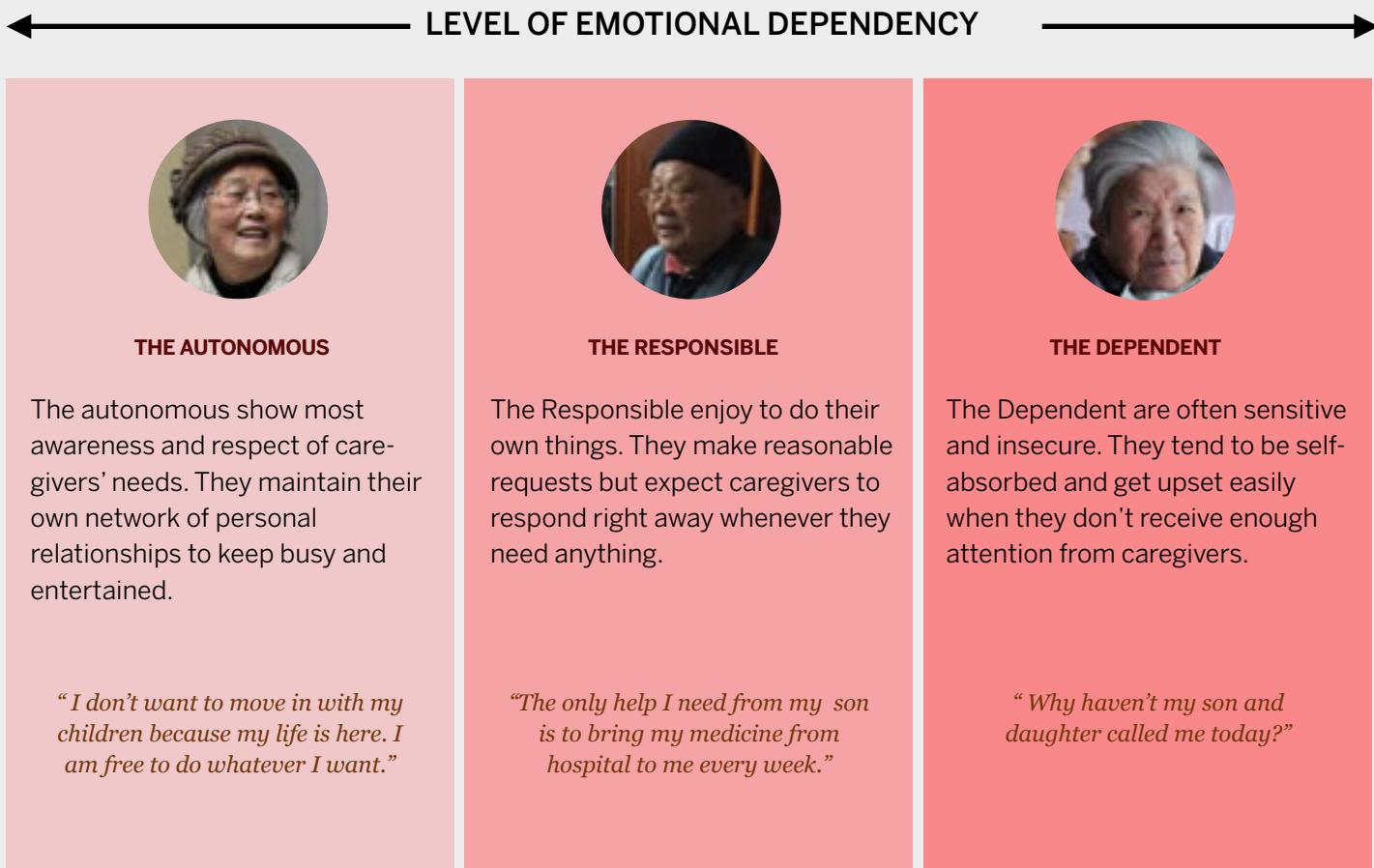


Low functioning and in need of assistance with daily tasks.



Senior archetypes (with a Chinese spin)

China research highlighted that besides their physical condition, a senior's level of emotional dependency is a significant determinant of the care they will need.



Caregiver archetypes (US study)

THE CAREGIVER



Point person for the family.
Could be a senior or a member
of the Sandwich Generation.

HOME HEALTH PROFESSIONAL

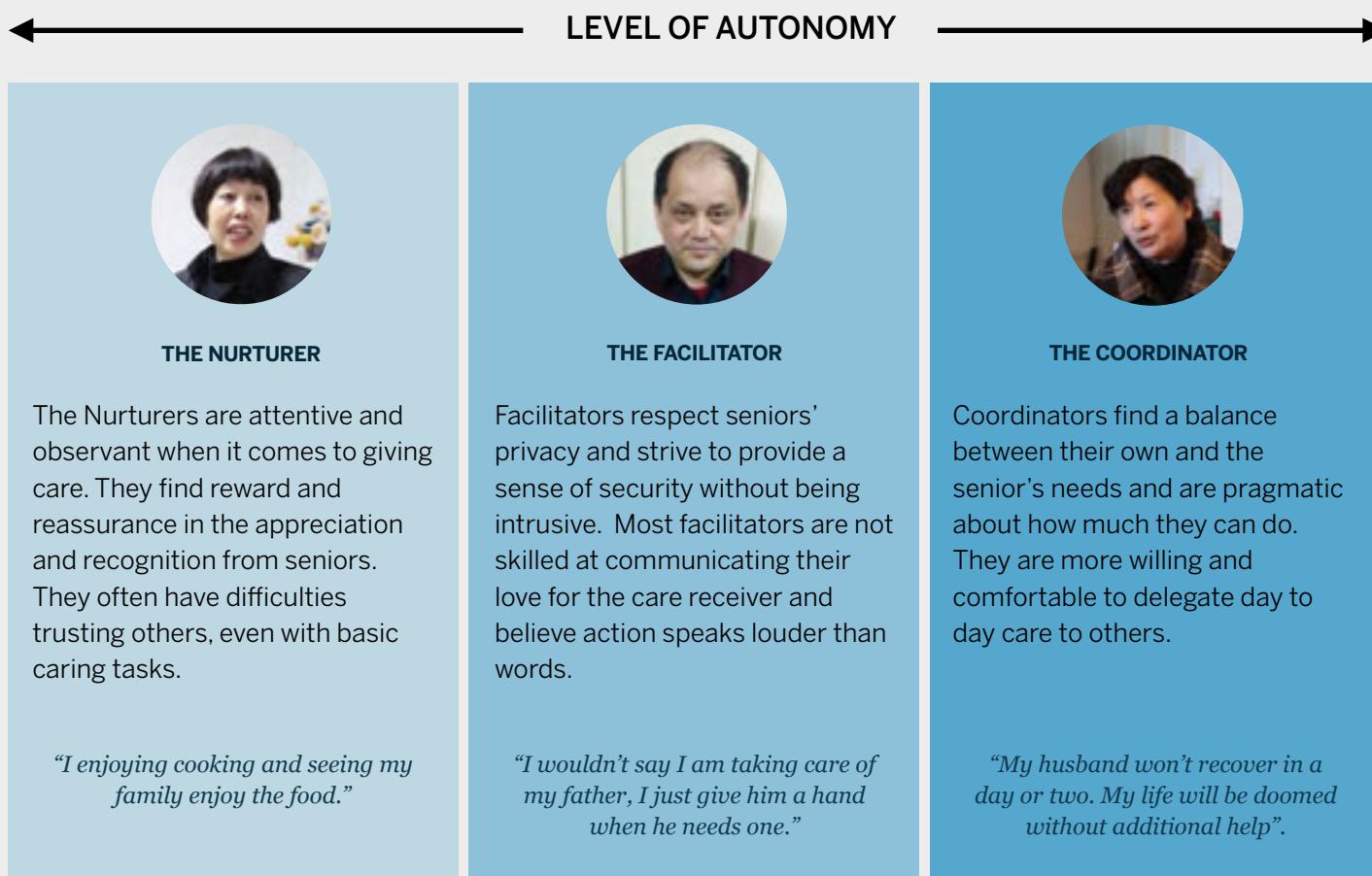


Has the clinical know-how and
is a bridge to the larger healthcare
system.

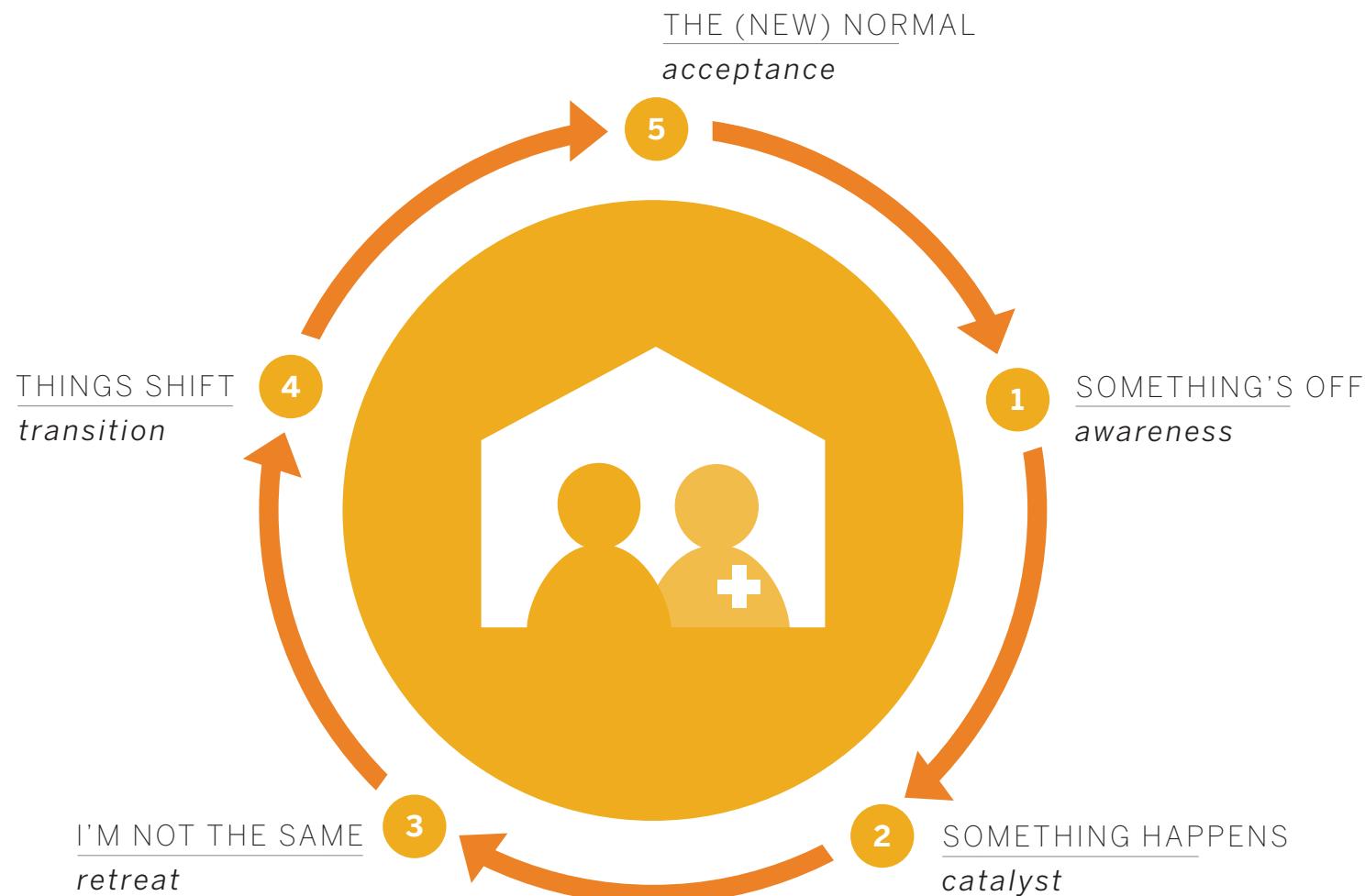


Caregiver archetypes (with a Chinese spin)

We also found 3 different caregiver archetypes, each displaying different behaviors and attitudes towards caring for their senior.

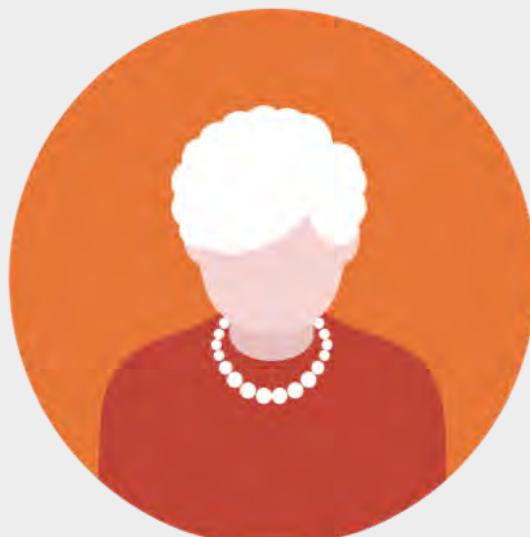


THE EMOTIONAL JOURNEY OF AGING



We expected something like this ...

Governed by the traditional concept of “養兒防老“ (the purpose of raising children is to prepare myself for ageing) seniors expect their children to be their primary caregiver supporting all their needs.



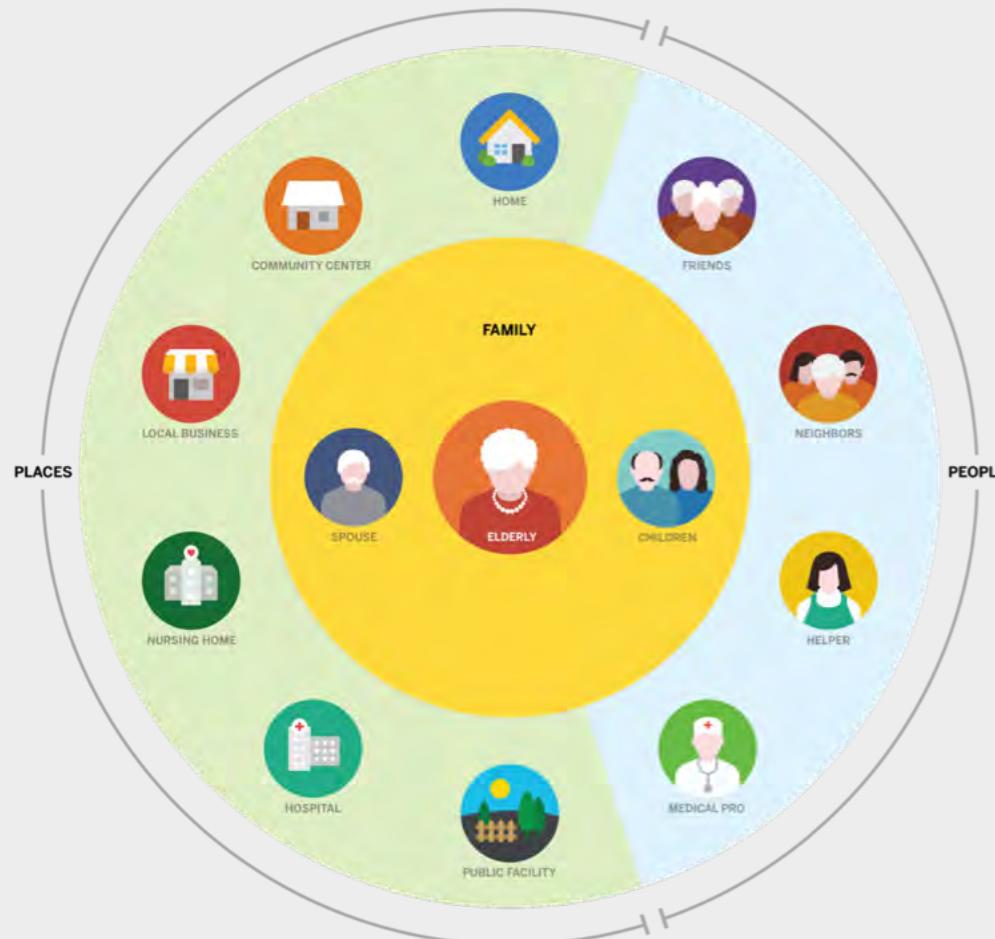
ELDERLY



CHILDREN

... but it's more like this.

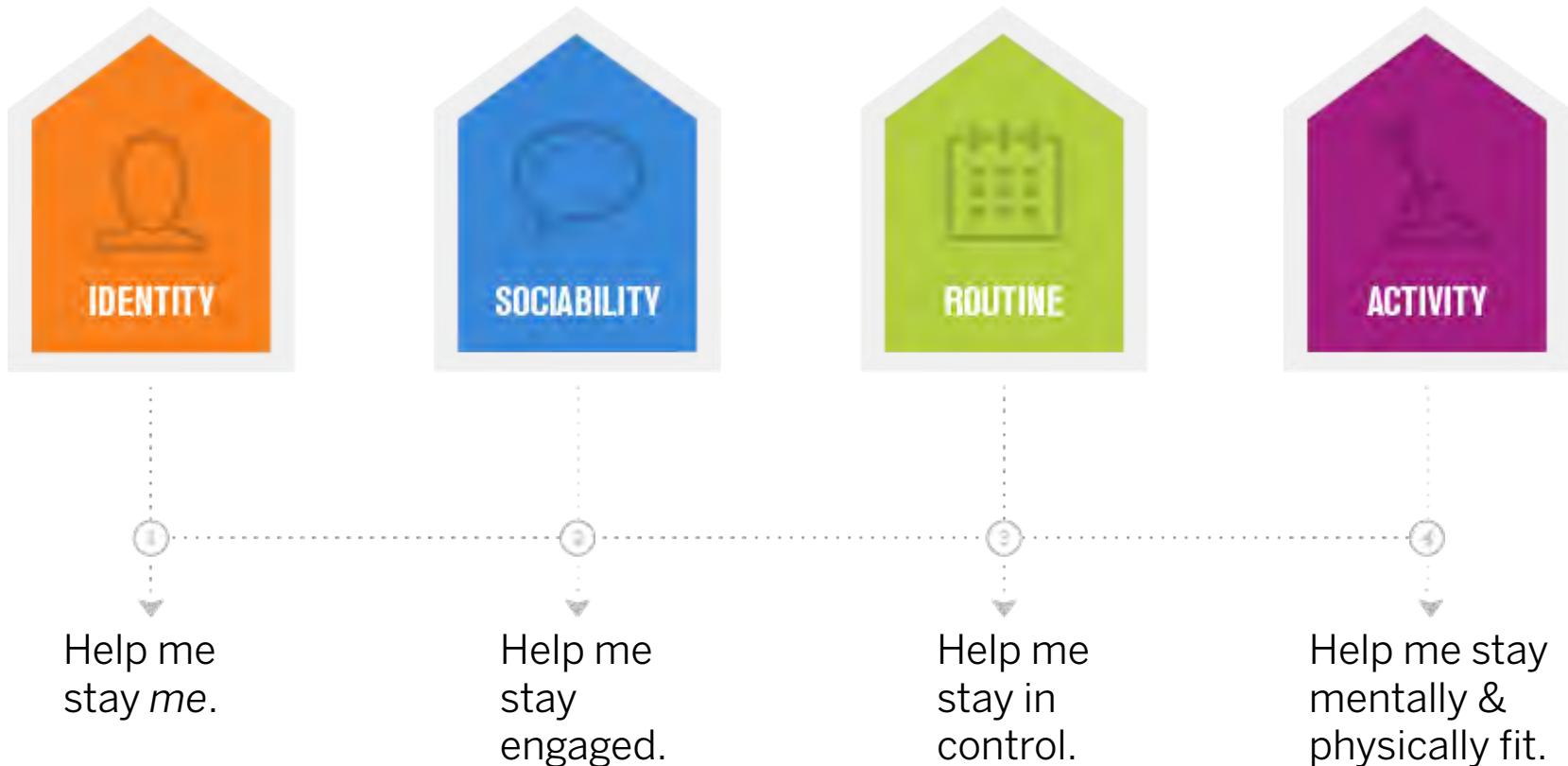
Upon closer look we uncovered that in many cases, it can be a much wider circle of care and influence that is projected on daily life — from housekeeping, errands to money matters and other, more sensitive, decisions. But when it comes to the big problems, family members are the first people seniors reach to for support.



A FEW FROG CONCEPTS

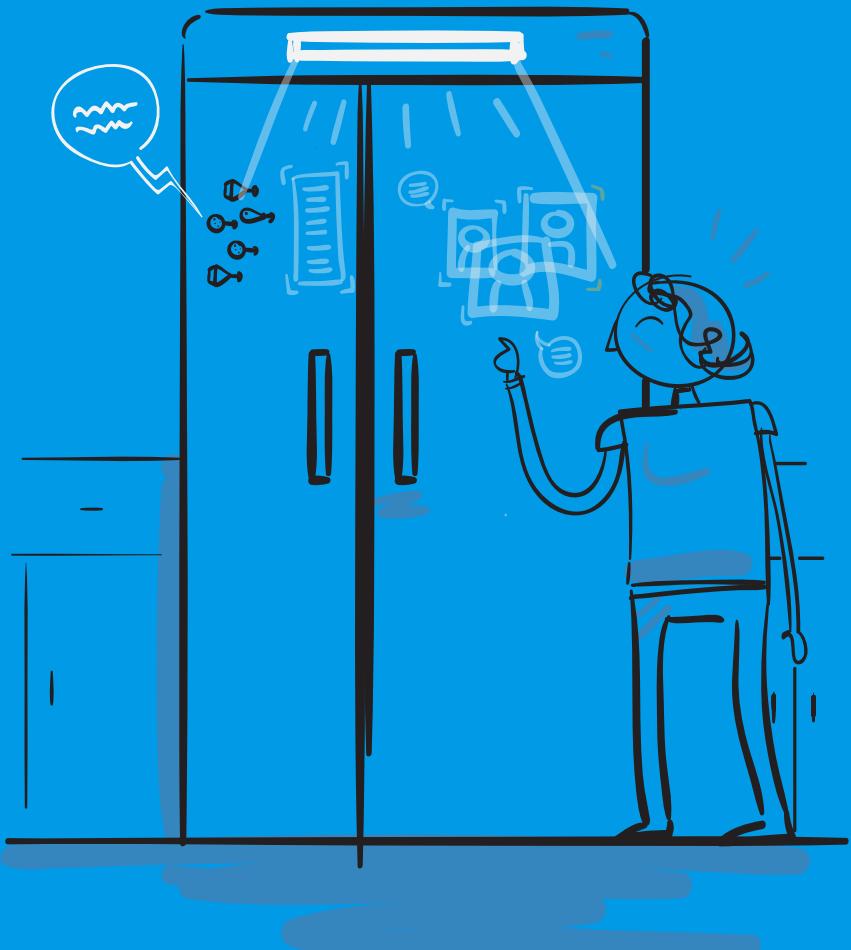


FIRST, REMEMBER THE CORE NEEDS



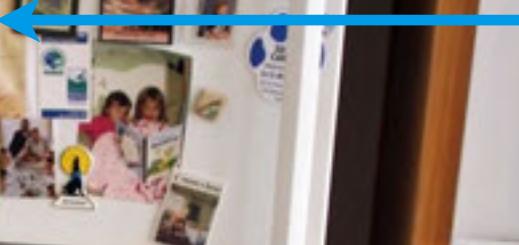
FRIDGE APPS

A simple and fun way for seniors to stay in touch with friends and family, keep track of appointments, manage their diet and keep track of to-do's — all from the “center of the home.”

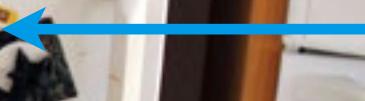




**DOCTORS
APPOINTMENT**



**FAMILY
PHOTOS**



**PHONE
NUMBERS**

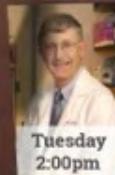


**GRANDCHILDREN'S
ARTWORK**



MESSAGING

ToDo
wash dishes
buy soap



Tuesday
2:00pm



to this low sodium dinner!

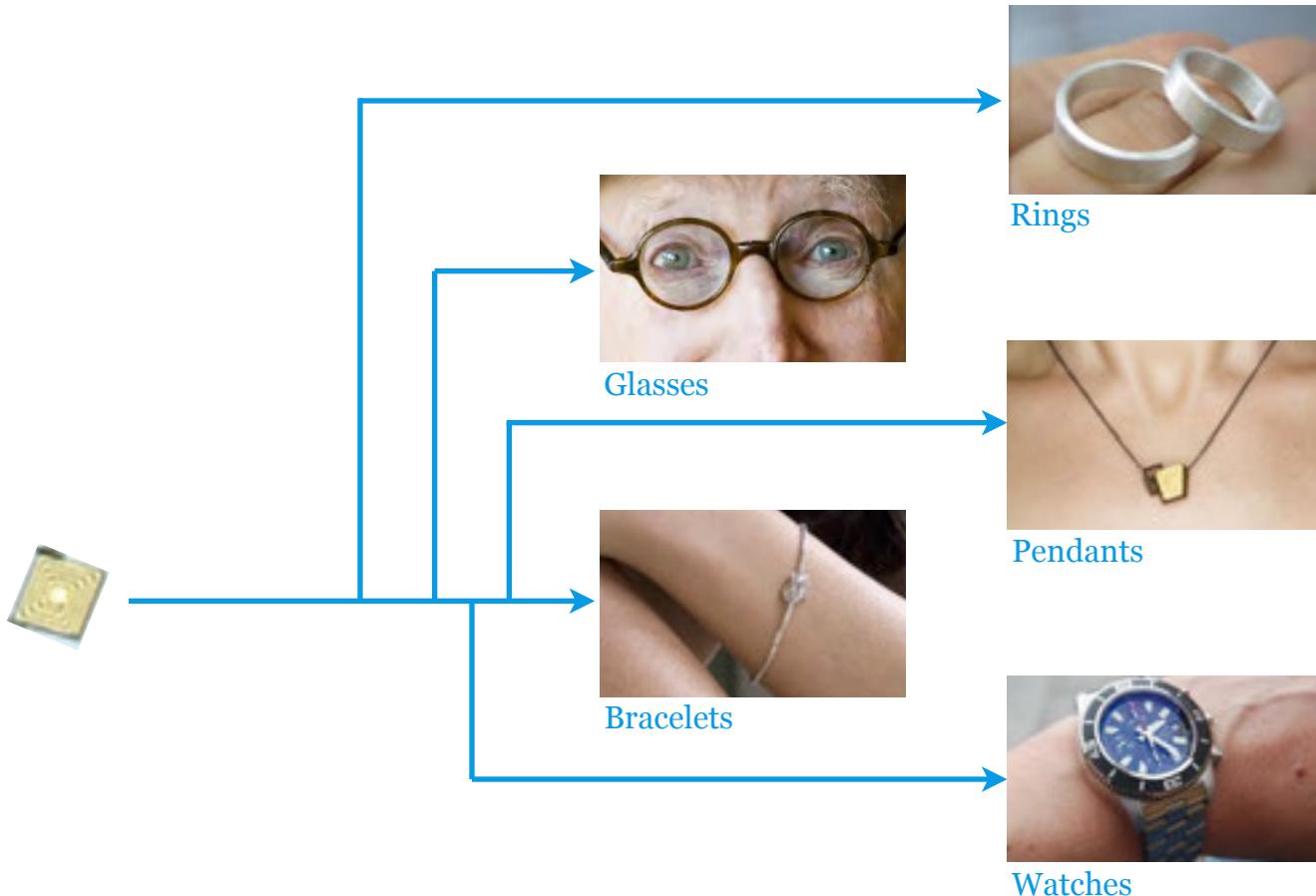


SAGA

RFID technology securely keeps track of vital information and can be shared by permission. Allows seniors to stay in control of their health information and identity.



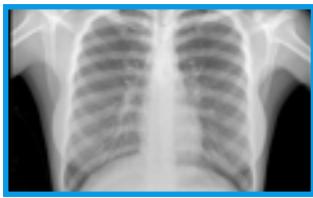
ENCRYPTED RFID TECHNOLOGY



ENCRYPTED RFID TECHNOLOGY



Vitals & Biometrics



Records & Results



Genomics



Medication



Care Providers



+



Security Gateway



Cloud Storage







SNOOZE

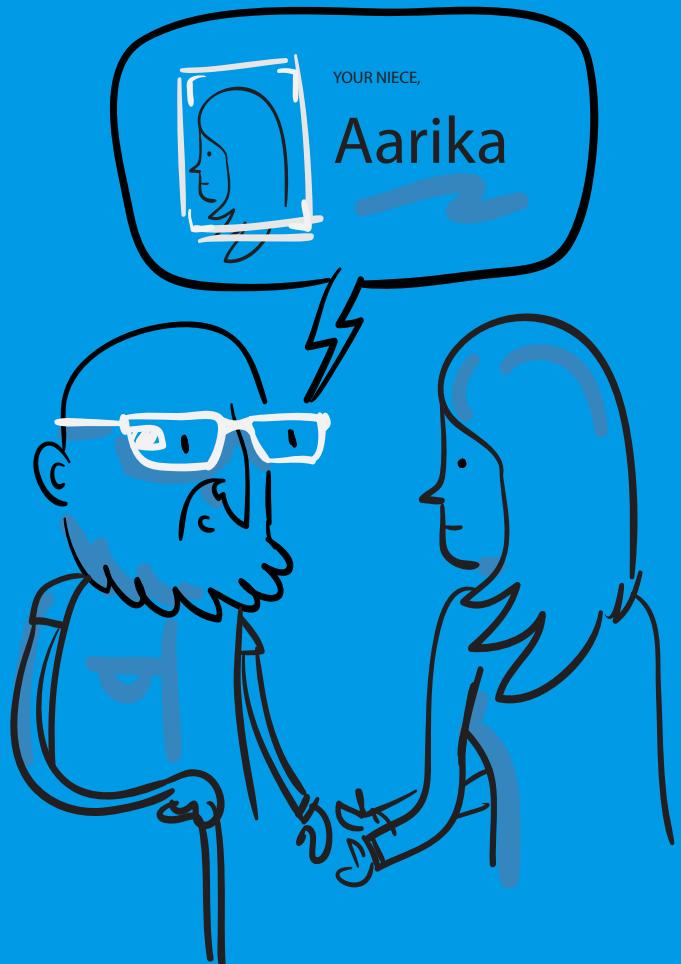
Passive biometric data collected while you sleep gives valuable insight into your overall health. Temperature, heart-rate, respiratory rate and activity can all be monitored and tracked over time.





CUE

A subtle, contextually aware, touch-enabled smart glass application that could help seniors with early stage dementia maintain higher levels of independence and social function.







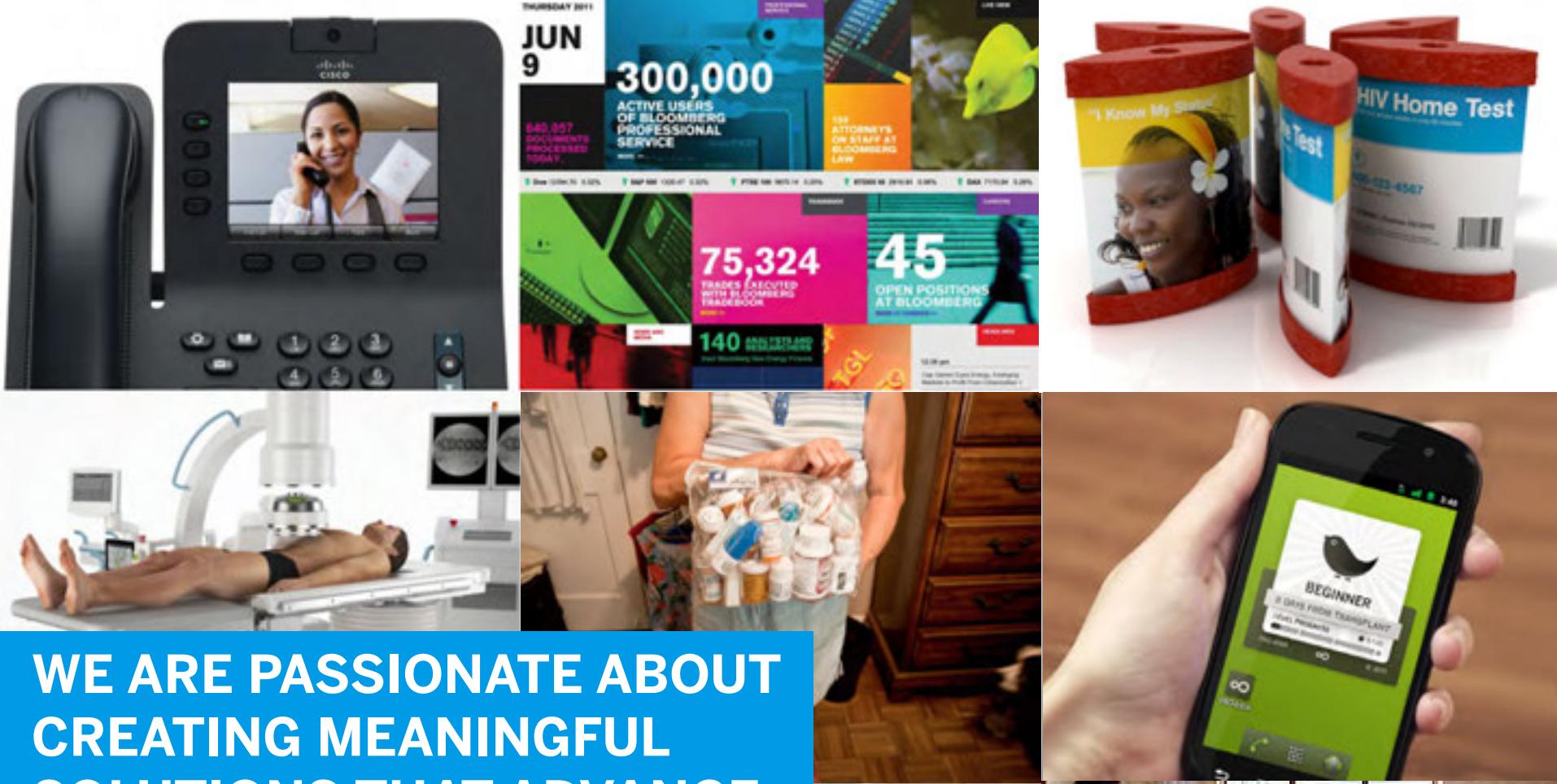
Aarika,
your niece.

P

1







WE ARE PASSIONATE ABOUT
CREATING MEANINGFUL
SOLUTIONS THAT ADVANCE
THE HUMAN EXPERIENCE.



FOR MORE INFORMATION:

visit **www.frogdesign.com**

or email **business@frogdesign.com**

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Thanks

