



The Future of Food Security

May 10, 2017

A partnership between





Table of Content

The Future of Food Security

Infrastructuring

Scenarios

About the research

The primary goal for this study was to gather learnings about challenges of daily lives, and better understand the issue of food insecurity among seniors. By applying design methods, the team conducted qualitative research with seniors struggling with food insecurity to learn about their experiences and the operational, social and nutritional contexts through which senior citizens source their food. Understanding the context of seniors' experiences served as the reference point to envision demand-centered models of sourcing food, consequently re-envisioning current models of delivering food that ensure the accessibility of food security for all seniors.

Executive summary

This design brief is the result of a 14 week collaboration between Feeding America and IIT-Institute of Design. The collaboration was structured under a graduate-level design course at IIT-Institute of Design. This brief presents alternative future scenarios, in which seniors could have access to nutritious food, and live a healthy, active life.

A partnership between



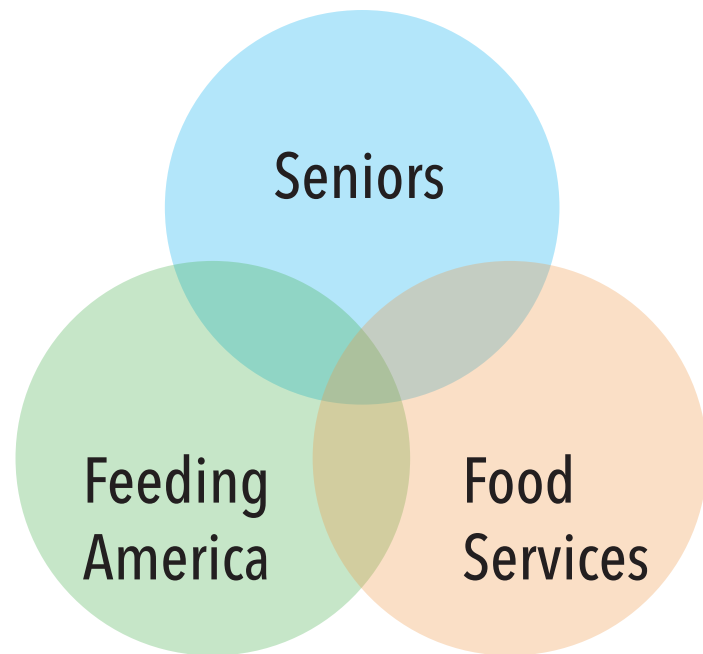
Partners
Maura Shea
Emily Basten

Instructors
Carlos Teixeira
Andre Nogueira

Research team
Lisa Radecki
Xiaojun Du
Kun Zhou
Archana Belani
Aaron Cook
Meng Yan
Jinjia Huang
Sara Tashakorinia

The Future of Food Security

How might we increase food security in a diversifying growing senior population?



How do seniors experience food insecurity?

What does it take for seniors to access food and eat meals?

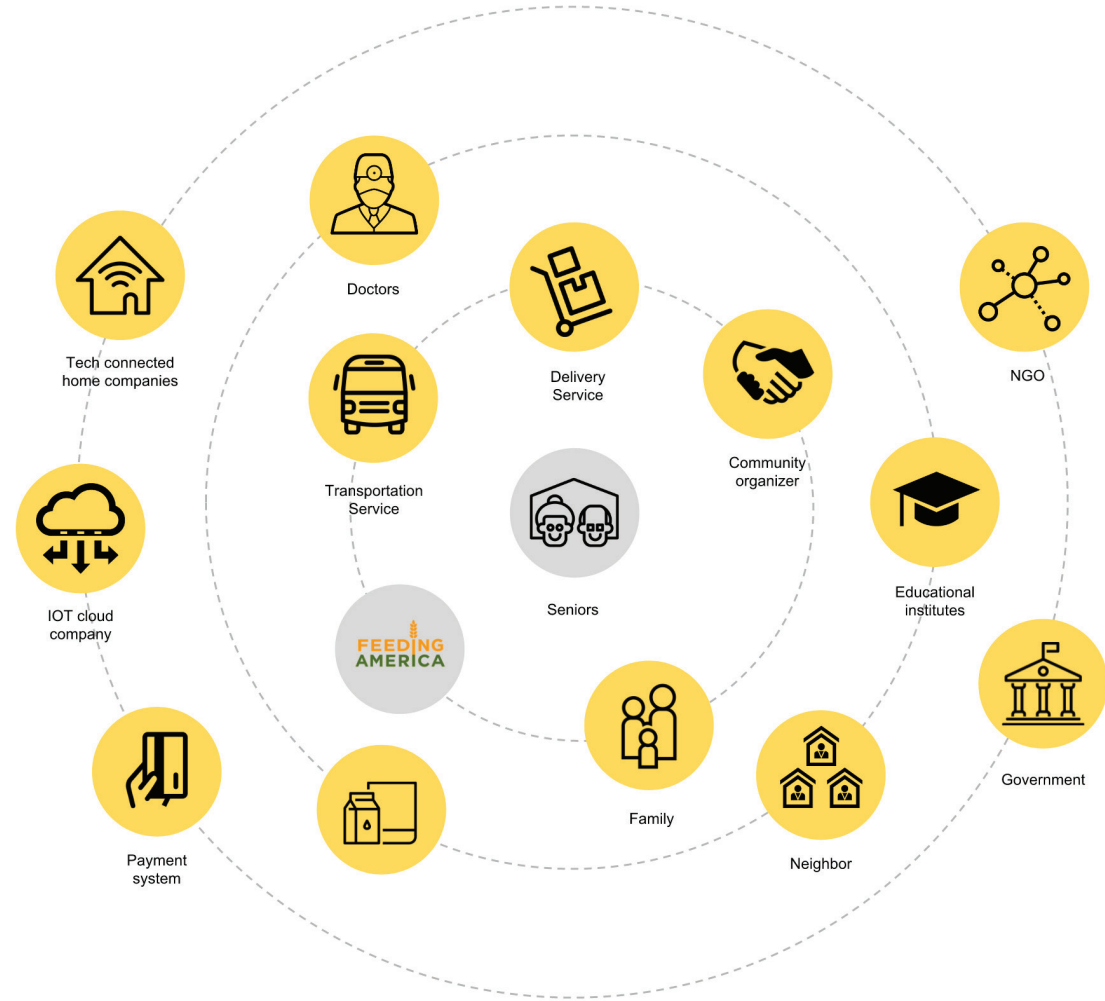
How do seniors understand their eating options and make decisions?



Currently, the Feeding America network serves 7 million adults aged 60 and older in communities across the country. However, the population of food-insecure seniors will double if food insecurity remains constant. By applying human-centered design approaches, prototyping methods, and systems thinking, the research team was able to understand senior's eating choices and experiences seniors on a daily basis, and the operational, social, and nutritional contexts through which senior citizens source their food. To address this challenge, the team focused on seniors' last mile, between accessing

food and being able to produce meals. Understanding context served as basis for the developing actionable insights about food insecure seniors in the US. Throughout the process, the team prototyped demand-centered models of sourcing food, and envisioned revolutionary, yet possible scenarios to serve seniors in new ways. Ultimately, the concepts presented in this document demonstrate alternative paths to impact livelihoods to increase the wellbeing of seniors in the United States.

Infrastructuring Feeding America as a broker



With seniors at the center, this system map provides a clear understanding of potential stakeholders to be involved in the proposed interventions. Through the brokering of knowledge, resources and networks, key stakeholders such as community builders, technology companies, and other organizations can build new relations and leverage existing assets to better serve seniors.

The proposed system of interactions allows for Feeding America to rely on multiple touchpoints, and provide

critical service options for seniors, such as health test, financial consultancy, skill building, etc.

The research team also created an infrastructure tool kit to support Feeding America navigate the complexity behind existing practices, and explore new services and platforming through demand-center processes.

Finally, researchers explored four major concepts to demonstrate new ways to impact livelihoods and their communities wellbeing in the United States

UNDERSTAND

- MAP
- QUESTION
- IDENTIFY
- PRIORITIZE

IMAGINE

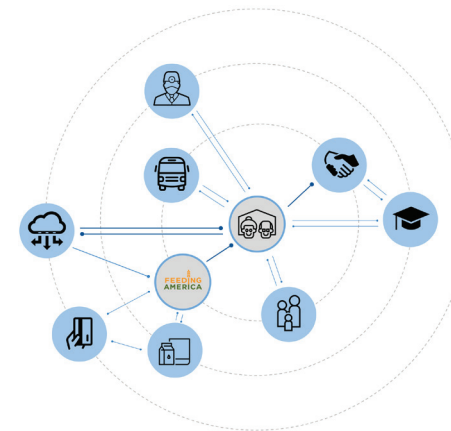
- TOOLS
- STORIES
- RECIPES
- WORKSHOPS

BUILD

- HOW TO
- SUPPORT
- PARTNERS
- RESOURCES

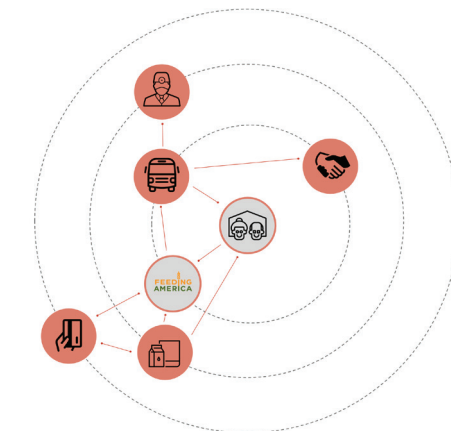
INSPIRE

- SHARE
- SUPPORT
- STRENGTH



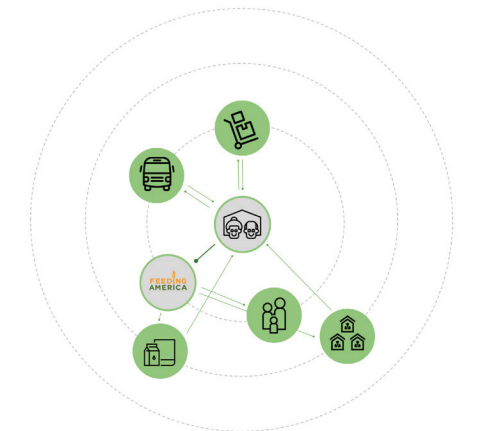
ROUTINE

A sequence of action regularly followed. Connecting seniors with supporting services for daily life activities.



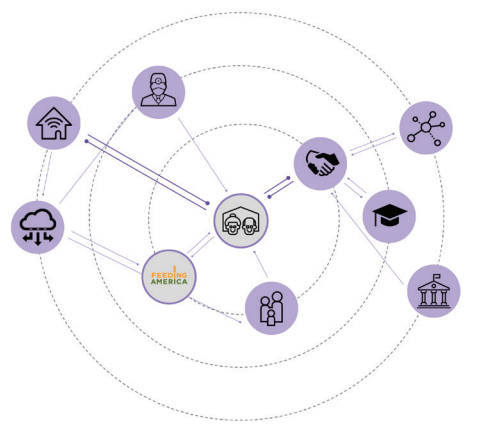
SPECIAL

Greater or otherwise different from what is usual. Recognizing seniors as assets to their communities and culture.



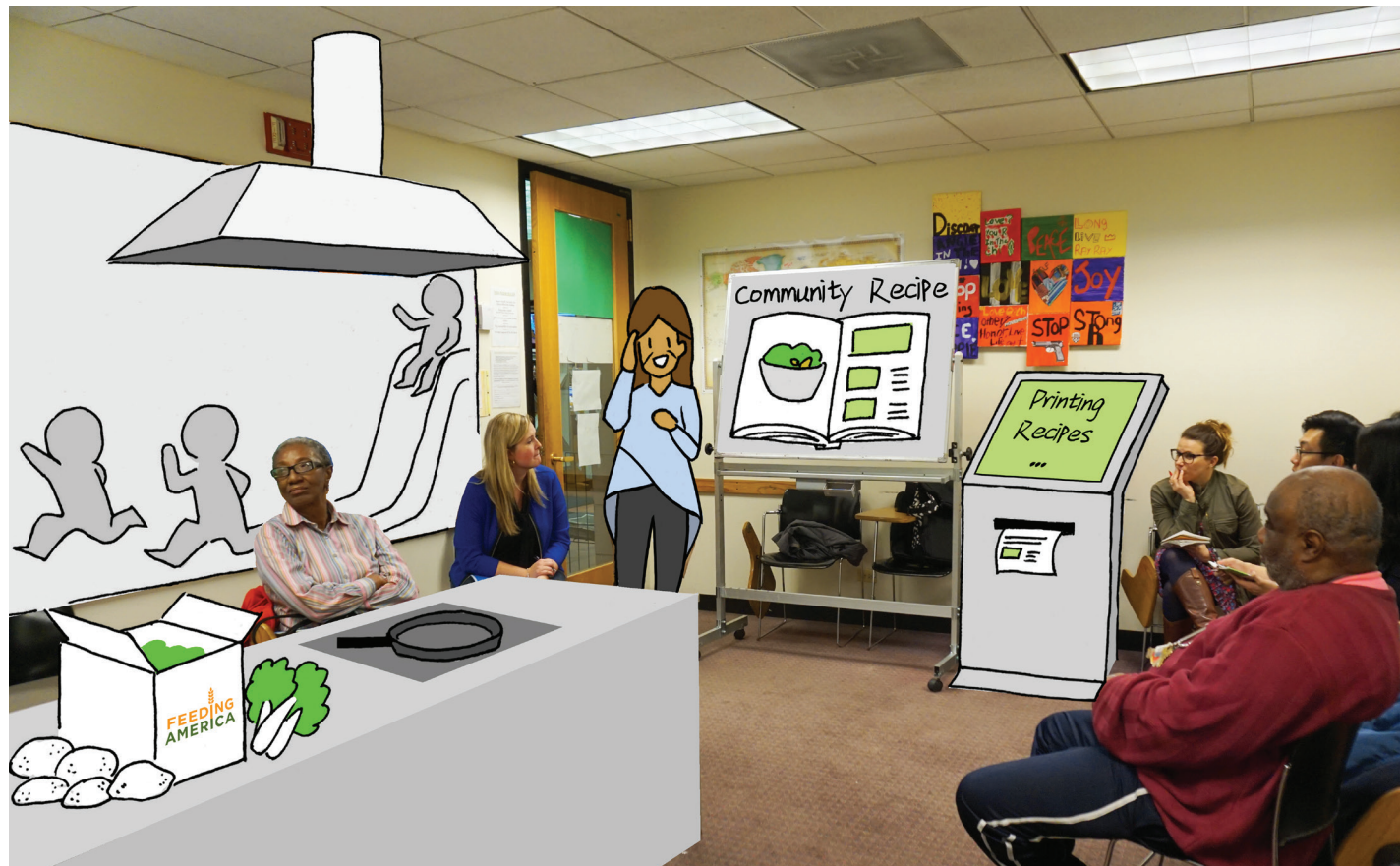
TEMPORARY

Transitory situation. Providing seniors the flexibility to manage financial, health and mobility services on-demand.



EMERGENCY

Unexpected or disruptive situation requiring immediate action. Activating support systems to provide stability in vulnerable situations.

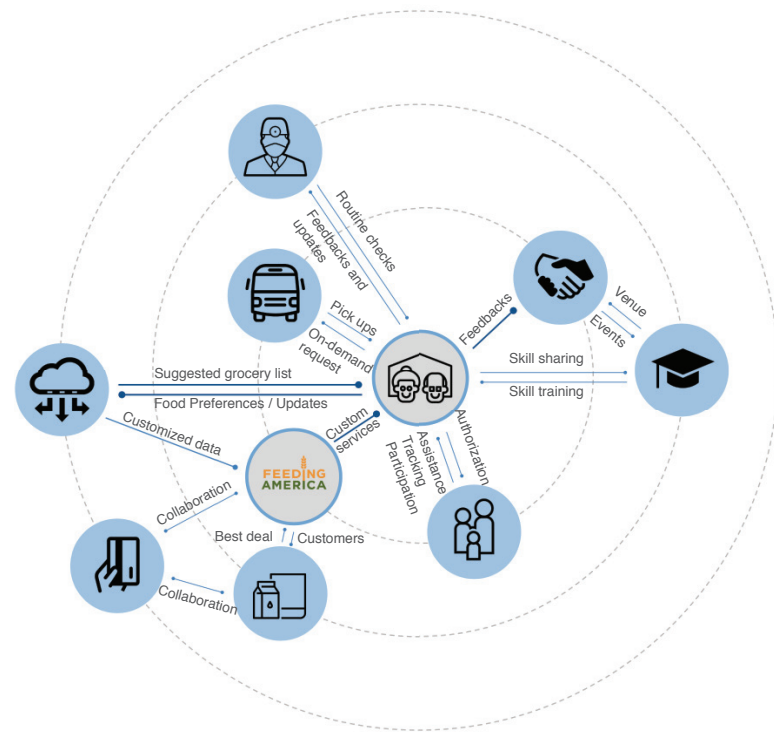


Routine

A sequence of action regularly followed.

Connecting seniors with supporting services for daily life activities.

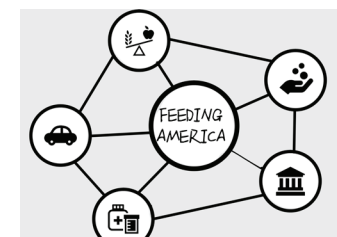
Feeding America can support seniors to be more engaged in the community by providing the social and technical infrastructure both for learning and teaching opportunities. Through its partnership network, Feeding America could connect seniors with different non-profit organizations, consequently expand and personalize their service options, including health exams, financial consulting, skill learning, and etc.



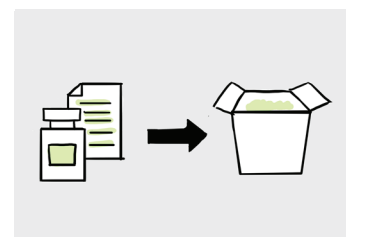
EVENT SUPPORT
Necessary support for seniors who lack of resources but want to contribute to the community and share their life experience.



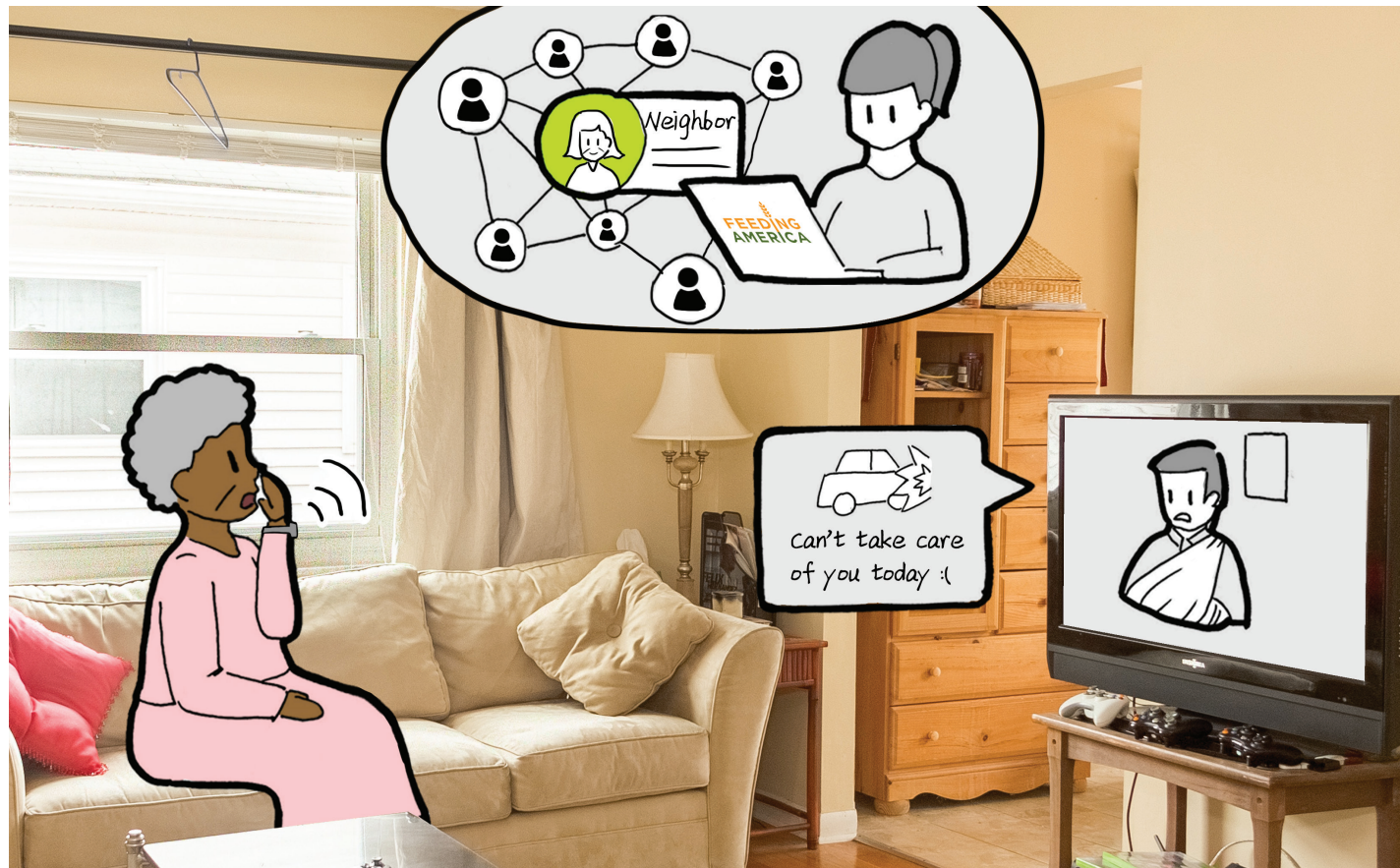
EASY ACCESS
A kiosk which helps senior to register and approach shared community resources such as downloading recipes and registering for classes.



PARTNERSHIP NETWORK
A partnership network collaborating Feeding America with different NGOs that enables seniors to get more wholistic support addressing their financial, health, and mobility capabilities.



DATA FEEDBACK
A service provided by Feeding America medical partners. The system will provide customize the food box based on seniors' health data.

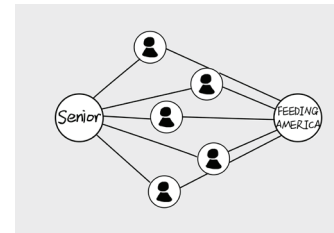
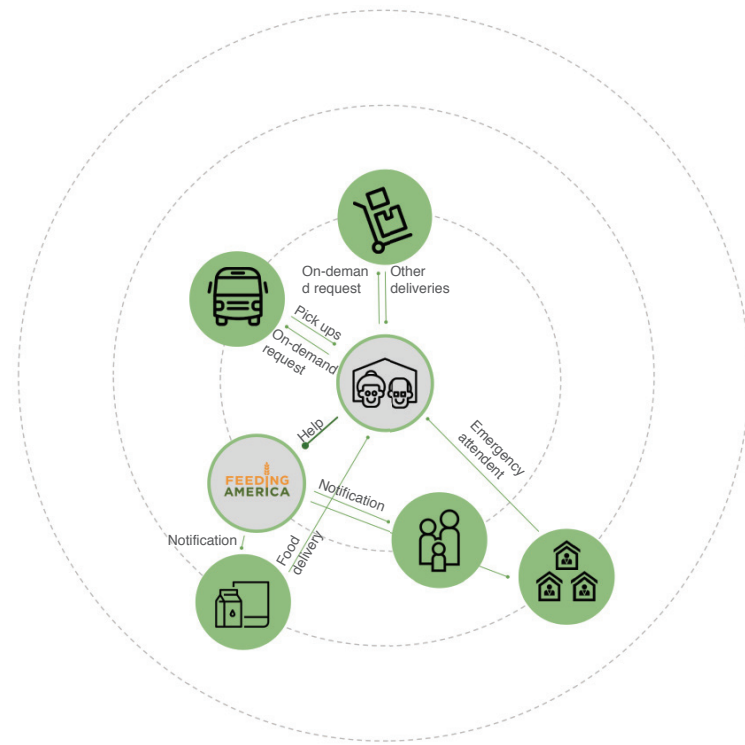


Emergency

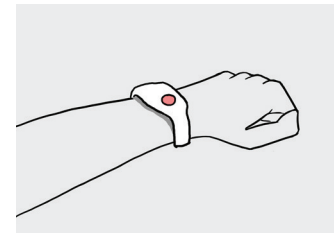
An unexpected or disruptive situation requiring immediate action.

Activating support systems to provide stability in vulnerable situations.

Physical limitation of seniors makes them more vulnerable when coming across emergencies such as being absent of caregiver, accidentally losing power, having an accident or being injured. Through Feeding America's emergency service, seniors would have their own caregiver pool, which is composed of their intimate relatives, friends, neighbors, building managers, and volunteers from their community. The emergency system will notify senior's caregiver pool to help them with the emergency situation. Based on seniors' profile and database, the system will arrange and deliver personalized meals through Feeding America transportation partners, insuring instant food supplies for seniors in need.



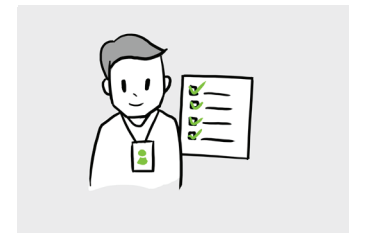
CAREGIVER NETWORK
The emergency system creates a caregiver network base on the senior's individual social network. The system is able to select the appropriate caregiver to support the senior in emergency situation based on their availability, preference and the emergency context.



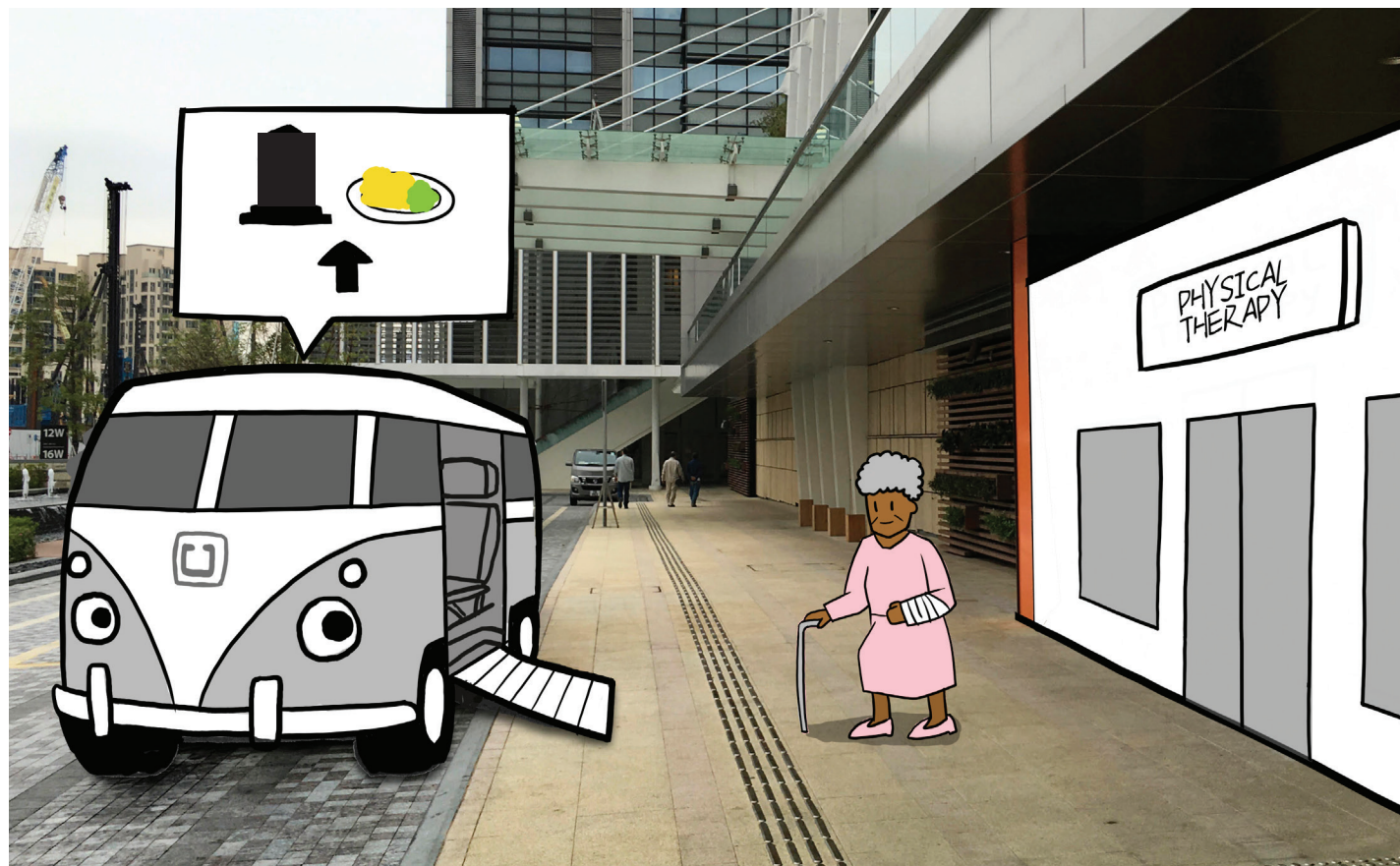
EMERGENCY WEARABLE
A smart device that helps seniors to interact with the Feeding America Emergency service in an easiest way.



PERSONALIZED FOOD / MEAL
Prepared food box and meals customized by senior's health data and personal preference. The food comes from local grocery stores, food pantries or restaurants. The Feeding America transportation partner will help deliver the food.



CHECKLIST
A task list for instructing the temporary caregiver to help the senior practice their daily.

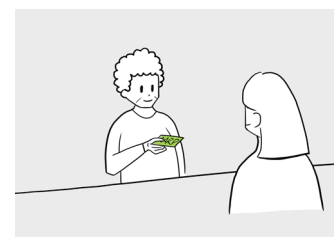
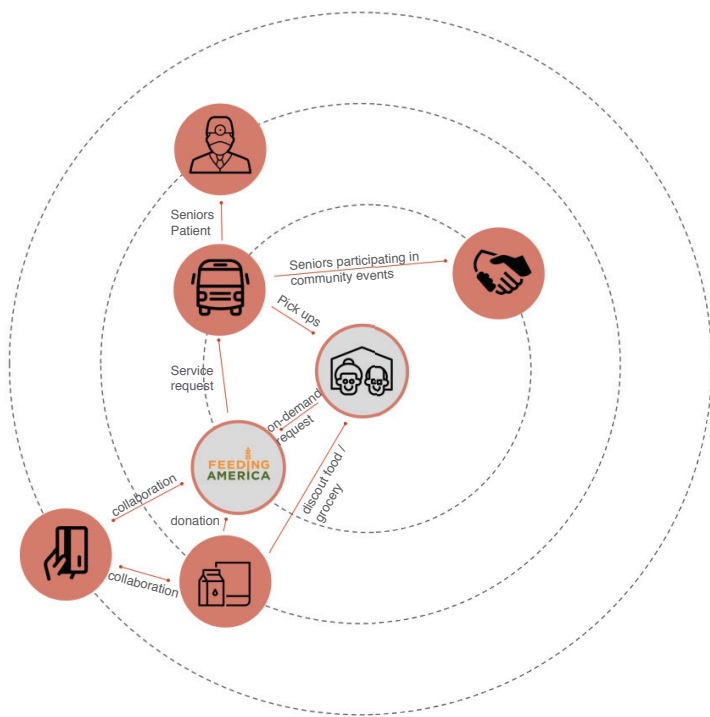


Temporary

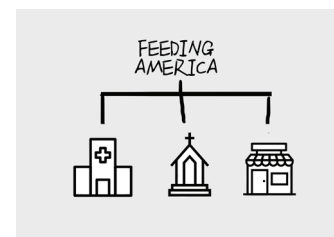
Transitory situation.

Providing seniors the flexibility to manage financial, health and mobility services on-demand.

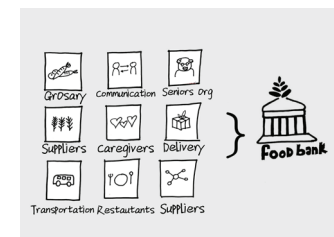
Feeding America's partnership with AARP, social services, and national retailers allows every grocery store to become a food bank, providing seniors with a wide variety of local fresh food choices. Feeding America's platform could coordinate care for seniors through a simple and friendly interface - a virtual assistant network. By shopping and paying with their AARP credit/debit card - a financial tool that connects seniors to other Feeding America partners and gives stability through personalized banking and emergency financial services, seniors can manage their public assistance and donated items without stigma.



STIGMA FREE
Seniors will receive assistance without stigma by using a AARP credit/debit card that will allow access to food without constraints.



COMMUNITY PARTNERSHIP
Community entities like grossary store, clinic and faith-based organizations, will work in collaboration to give multiple touchpoints for access to resources.



FOODBANKS AS BANKS
Financial tools will connect seniors with other partners, and give them stability through personalized banking and emergency services.

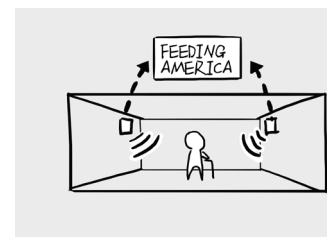
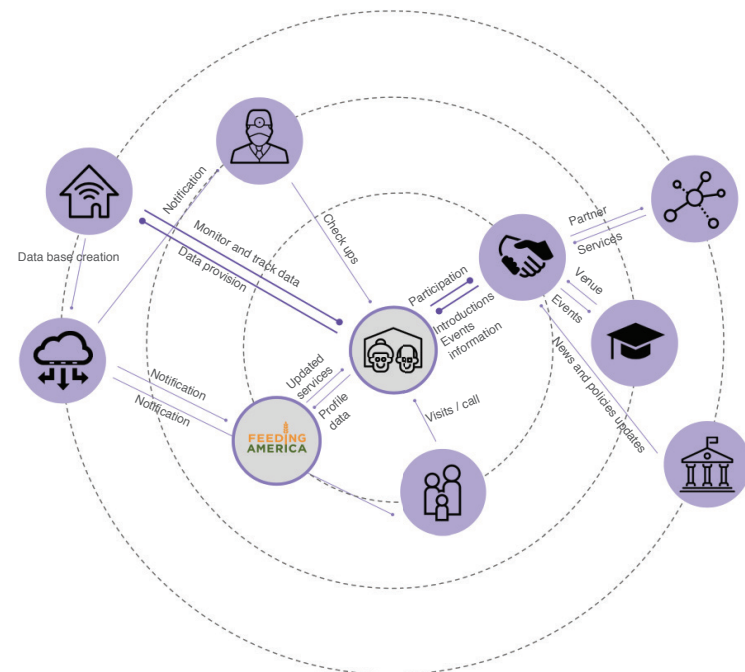


Special

Greater or otherwise different from what is usual.

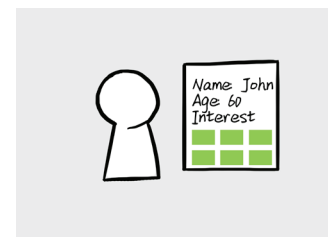
Recognizing seniors as assets to their communities and culture.

Feeding America could leverage smart environments and cultural traditions to mobilize communities to protect and celebrate the wisdom of senior. Monitoring systems could be used to detect seniors' activity level, energy consumption and emotional change, noticing changes in their behavior and triggering their local social network to provide assistance. Feeding America could also provide support for seniors to celebrate cultural traditions and special events within their community, such as Chinese New Year or their birthday. Seniors could have a social hub for meeting and planning a community event. Feeding America would support community leaders with networking services and customized food catering from donations.



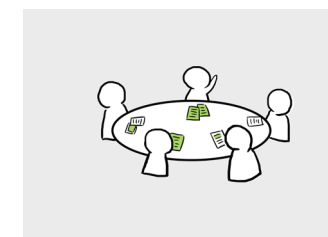
DATA COLLECTION AND NOTIFICATIONS

The system will use sensors and touchpoints to collect & monitor behavioral data. Notifications to personalized network will inform data has exceeded the monitor thresholds.



NETWORK ACTIVATION

User profile in database will suggest topics/ news of interest, and engage seniors in processes and decisions that might have direct impact on them.



RESOURCE BROKER

The broker will bring experiences to social hubs, provide edge technology learning classes to seniors, and allocate resources in demand.



USER ENGAGEMENT & MOTIVATION

System will provide instant feedback of user's contribution, and create artifacts to reinforce ownership and engagement.



Acknowledgments

We are thankful for all the participants involved in this research process, including seniors, family members, community organizers, Feeding America and IIT-Institute of Design staff, volunteers, and experts. Without their contributions, this report wouldn't be possible.

A partnership between



Partners
Maura Shea
Emily Basten

Instructors
Carlos Teixeira
Andre Nogueira

Research team
Lisa Radecki
Xiaojun Du
Kun Zhou
Archana Belani
Aaron Cook
Meng Yan
Jinjia Huang
Sara Tashakorinia