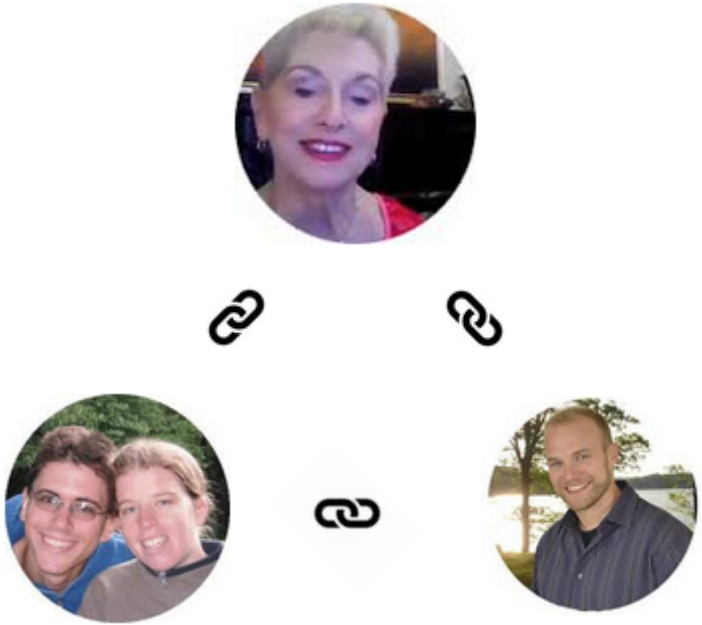
+ Linked Living

Project Overview



Help **elderly people**, their remote **family members**, and other stakeholders (e.g. **caregivers**) to communicate about how the elderly people's lives are and how healthy they are, in more **humane, narrative ways**.

Application Design

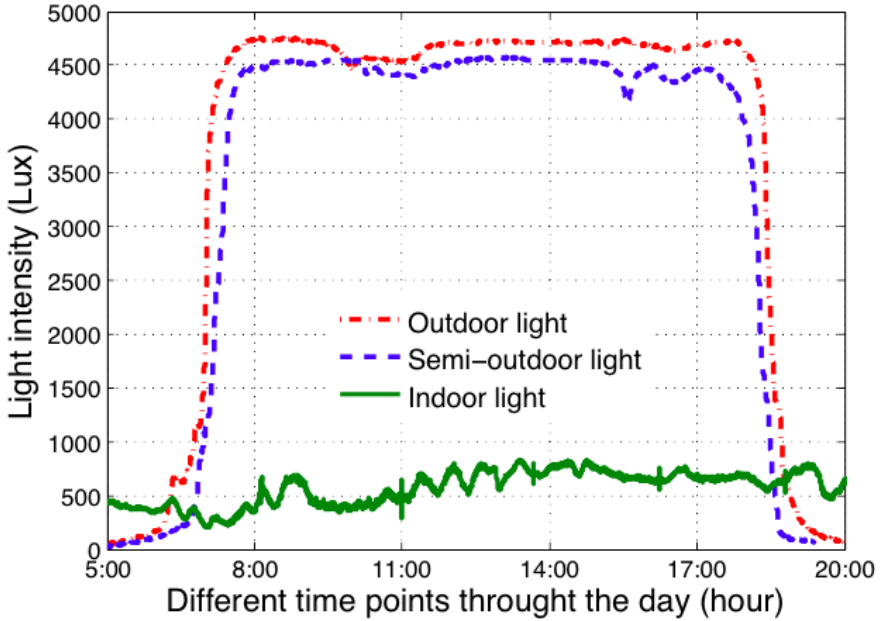
Features

1. Activities Detection
2. Heart Rate Monitoring
3. Contextual data (weather, time, place)
4. Narrative UI

Algorithm Design

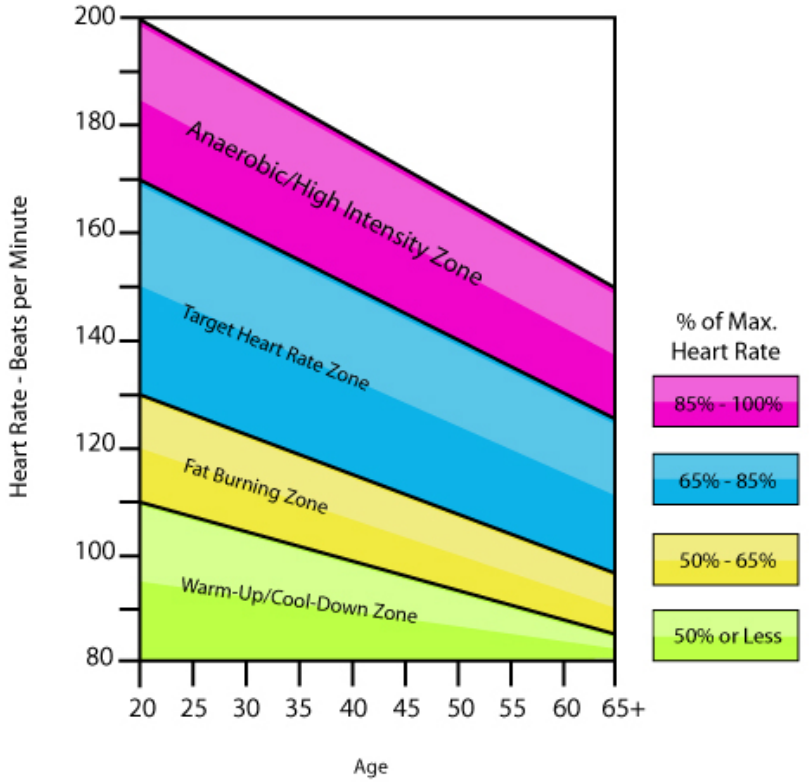
1. **Activity Detection**
   - Pedometer
   - Speed/steps per sec

2. **Indoor/Outdoor Detection**
   - Light Sensor
   - Supervised ML Classifier

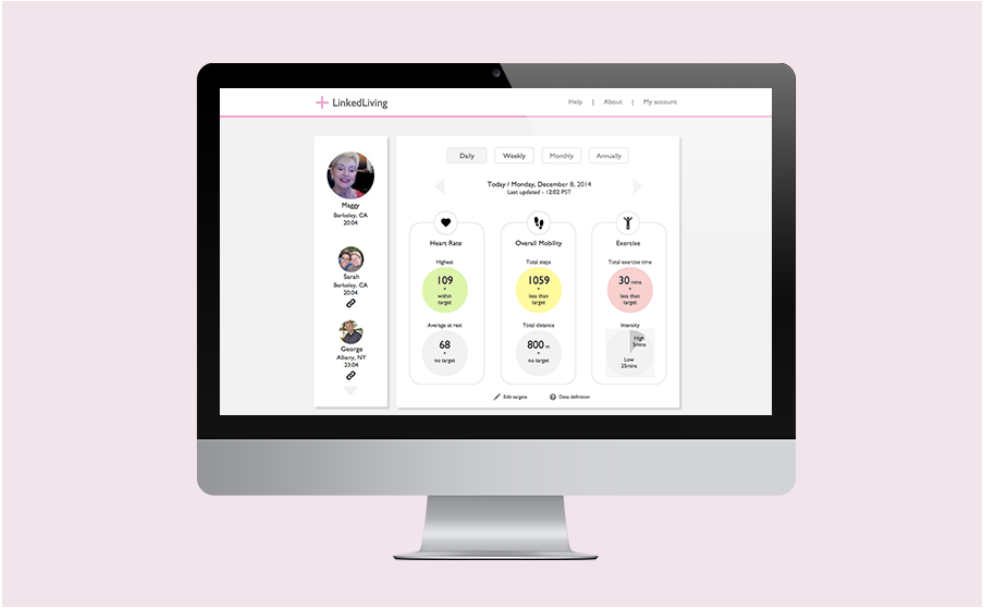


Algorithm Design

3. **Intensity Detection**
   - Heart Rate Sensor
   - Age Info



Demo


LinkedLiving
Help | About | My account
Maggy
Berkeley, CA
2004
Sarah
Berkeley, CA
2004
George
Albany, NY
2004
Daily
Weekly
Monthly
Annually
Today / Monday, December 8, 2014
Last updated - 12:02 PST
Heart Rate
Highest
109
within target
Average at rest
68
no target
Overall Mobility
Total steps
1059
less than target
Total distance
800
no target
Exercise
Total exercise time
30
less than target
Intensity
Edit targets
Data definition

Future Direction

A few interviewee expressed strong interest in emergency support.

“It’s nice if the system can find falls and immediately send me a text and call automatically.”

“I call my parents every week and I don’t think this system will replace that communication. The system should do something I cannot do (which he later pointed out as emergency detection)”

Future Direction

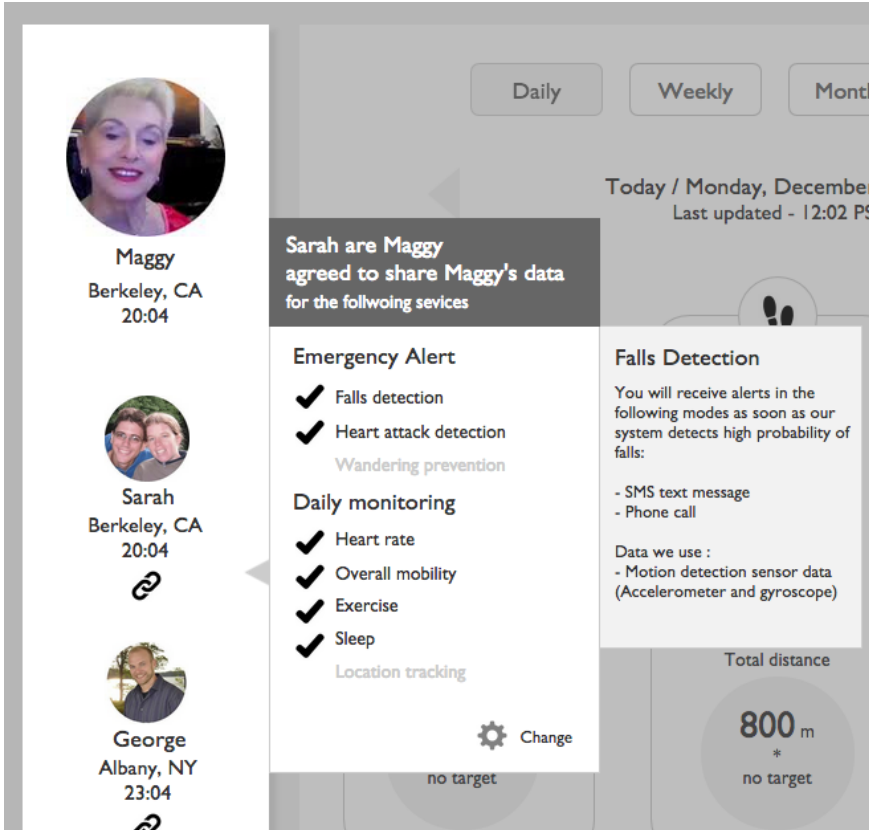
One senior we interviewed expressed interest in communication support between grandparents and grandchildren.

“That’ll be great my 2 years old grand daughter reads my story… I’m more interested to see what her day looks like .”

Key Challenges

- Privacy
- Data input by older people

  (nutrient intake, vital signs (blood pressure, body temperature), any other important data for each individual)



Next step

- Evaluate accuracy and usability for work in project 2.
- Conduct more interview with both young and older adults.
- Create info visualization for weekly, monthly, and yearly analysis.
- Analyze feasibility to provide interactions for older adults.

Questions?

Do you have parents or older family members living alone far away? If so, how do you see this idea?

Q&A

1. empower people - Pablo
2. another information source - Rena
3. privacy: cousin
4. wearable: glasses, ear-aid