Preparation & Self-Experimentation

Jong Ho Lee

Examining Opportunities for Goal-Directed Self-Tracking to Support Chronic Condition Management

Jessica Schroeder

- Ph.D Candidate in University of Washington (CSE)
- Focus: Supporting people & health providers in personalized health management
- CHI 2017 Best Paper [1], CHI 2017 Honorable Mention [2], DIS 2018 Honorable Mention [3]

[1] Examining Menstrual Tracking to Inform the Design of Personal Informatics Tools. https://doi.org/10.1145/3025453.3025635
[2] TummyTrials: A Feasibility Study of Using Self-Experimentation to Detect Individualized Food Triggers. https://doi.org/10.1145/3025453.3025480
[3] Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition. http://doi.org/crbm

Ravi Karkar

- Ph.D Candidate in University of Washington (CSE)
- Focus: Designing personal monitoring tools to better support people's medical conditions
- Worked on TummyTrials [1], with Honorable Mention at CHI 2017
- Currently on the academic job market

[1] TummyTrials: A Feasibility Study of Using Self-Experimentation to Detect Individualized Food Triggers. https://doi.org/10.1145/3025453.3025480

Natalia Murinova

- Physician, director of UW Medicine Headache Center, UW associate professor of Neurology
- M.D. from University of Comenius, M.H.A. at UW
- Specializes in chronic pain, neurology, and internal medicine

James Fogarty

- Professor of CSE at UW and core member of DUB group
- Most cited work (ACM DL): Predicting human interruptibility with sensors, TOCHI, 2005
    - Modeling human interruptibility
    - Interruptibility? Deciding when it is socially appropriate to interrupt a person.

Sean A. Munson

- Associate Professor of HCDE at UW and member of DUB group
- Most cited work (ACM DL): Presenting diverse political opinions: how and how much, CHI '10
  - Identifies diversity-seeking and challenge avoidance people when presented with political opinions

SleepCoacher: A Personalized Automated Self-Experimentation System for Sleep Recommendations

Nediyana Daskalova

- Final year CS Ph.D Student in Brown University
- Focuses on sleep-tracking and self-experiments
- Self-E: Self-experimentation app to control various aspects of users' lives
- Most current publication: SleepBandits: Guided Flexible Self-Experiments for Sleep (CHI 2020)

Danaë Metaxa

- CS Ph.D Student in Stanford University
- BA in CS at Brown University
- Focuses on bias and technology
- Political bias in web search, gender bias in web interfaces, social ties and natural disasters

Adrienne Tran

- BA in CS at Brown University
- Led product design at Vium, founder of Neurocurious.ai
- Currently works at Tesla as Product Program Manager

Nicole R Nugent

- Associate professor of Psychiatry and Human Behavior, Associate professor of Emergency Medicine at Brown
- Focuses on characterizing neurobiological and psychosocial influences during high periods of stress

Julie Boergers

- Associate professor of Psychiatry and Human Behavior, associate professor of Pediatrics
- Conducted research on childhood sleep disorders, pediatric chronic illnesses, and adolescent health behaviors

John E McGeary

- Associate professor of Psychiatry and Human Behavior
- Certified Psychologist
- Focuses on identifying genetic variation associated with psychiatric and behavior phenotypes
- Addiction phenotypes (alchohol, nicotine, cocaine), anxiety phenotypes (PTSD), Mood phenotypes (depression), behavior phenotypes (sleep)

Jeff Huang

- Assistant professor in Computer Science at Brown
- Focuses on building personalized systems based on user behavior data
- Chair of Undergraduate Research

Related Works

- Persuasive Technology

- Tracker Goal Evolution Model
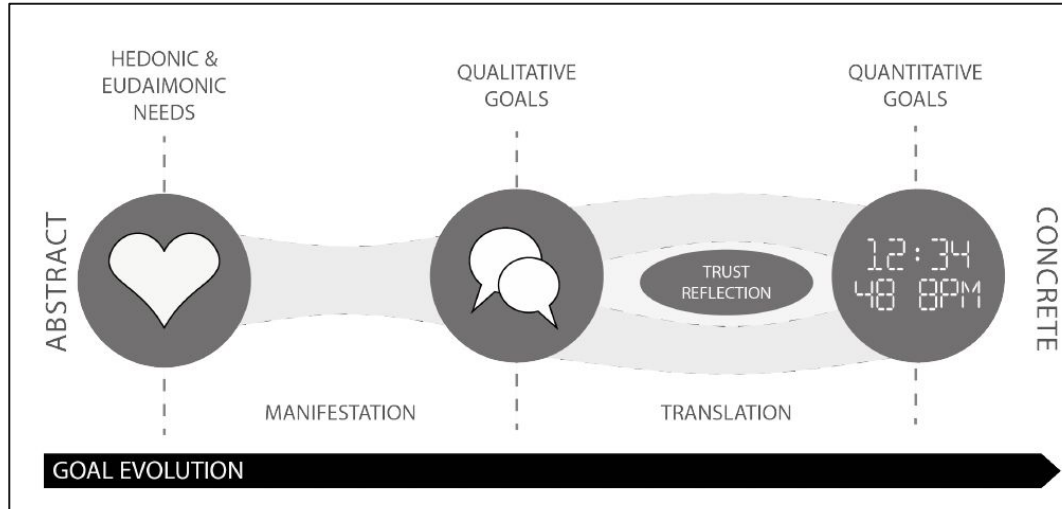
- Migraine Management in HCI
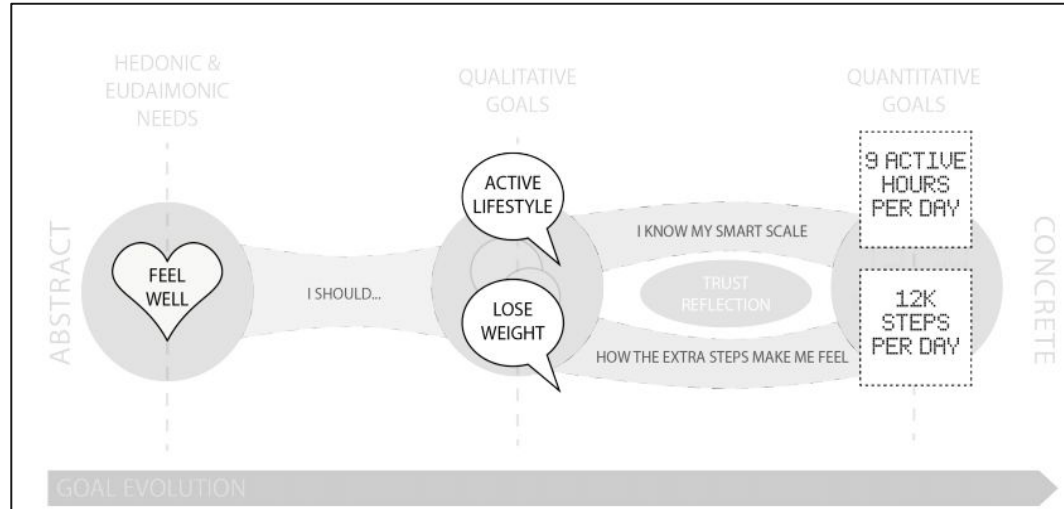
Persuasive Technology

- Computers as persuasive social actors

- Fogg shows that people respond to computer systems as though they were social entities [1]

  - Proposes 5 types of social cues that makes people infer social presence in a technology

  - Computers can employ these cues to persuade

  - Book chapter talks about research in persuasive technology using these cues

  - Urges designers to make appropriate use of these cues

Cue	Examples
Physical	Face, eyes, body, movement
Psychological	Preferences, humor, personality, feelings, empathy, "I'm sorry"
Language	Interactive language use, spoken language, language recognition
Social dynamics	Turn taking, cooperation, praise for good work, answering questions, reciprocity
Social roles	Doctor, teammate, opponent, teacher, pet, guide

[1] Persuasive technology: using computers to change what we think and do: https://dl.acm.org/doi/abs/10.1145/764008.763957

Tracker Goal Evolution Model

Supporting Meaningful Personal Fitness: the Tracker Goal Evolution Model: https://dl.acm.org/doi/abs/10.1145/3173574.3173745

Tracker Goal Evolution Model

Supporting Meaningful Personal Fitness: the Tracker Goal Evolution Model: https://dl.acm.org/doi/abs/10.1145/3173574.3173745

Migraine Management in HCI

- Park and Chen [1]: investigates migraine management practices and identifies challenges in identifying and managing migraine
  - Participants are uncertain in identifying migraine
  - Triggers and symptoms of migraine
  - Coping methods for migraine
- Schroeder et al [2]: investigates how people with migraine track and use data for migraine
  - Answering questions about migraines
  - Predicting and preventing migraines
  - Monitoring and managing migraines over time
  - Enabling motivation and social recognition*

[1] Individual and Social Recognition: Challenges and Opportunities in Migraine Management: https://dl.acm.org/doi/abs/10.1145/2675133.2675248
[2] Examining Self-Tracking by People with Migraine: Goals, Needs, and Opportunities in a Chronic Health Condition: https://dl.acm.org/doi/abs/10.1145/3196709.3196738