BreathWear

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Background :: What is BreathWear?

- Interactive App developed by Neema Moraveji, director of Stanford Calming Technology Lab
- Sensor + iPhone app
  - Monitoring Breathing
  - Guiding Breathing
Motivation: The Problem
The Solution: Conscious Breathing
Related Work: Apps
Related Work: Medical Devices
Use Cases & Design Dimensions

**Measurement**
- Real-time monitoring
- Intuitive analytics

**Guidance**
- Adaptive, non-intrusive feedback
- Personalized programs

**Engagement**
- Social monitoring
- Gamification

Breath illiterate

Breath Fluent
Visualization Problems

- Minimal real estate on a mobile device
- Average person doesn’t know how to analyze breathing data
  - No understanding of breath metrics
- Visualization shouldn’t negatively affect user’s breathing
  - The goal is to help user relax, so visualizations should not alarm or stress the user
Our Focus :: Data Contextualization

Give breath measurements meaning...

- Show users how breath affects their everyday life in their usual locations

How?

- Intuitive Analytics (context)
  - Automatic:
  - Geo, Calendar, Email data
  - User-driven data (emotions, pictures, thoughts)
Our Approach :: Design Principles

- minimize noise / clutter
- intuitive - as graphic as possible
- encourages exploration - interactive
- integrated - easy to incorporate into regular phone use
Our Approach :: Mocks

- Mapping Breath Rates to everyday activities
- Help users understand
  - What daily activities stress me out?
  - What locations help me breathe?
Research Questions/Design Study

How can we present information in a way that isn’t overwhelming, captures important nuggets, and motivates the user to be calm?