Mobile Health Workshop
February 11, 2009

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Director, Mobility Research Center
Carnegie Mellon Silicon Valley
Agenda

• Welcome
• Carnegie Mellon Silicon Valley
• The CyLab Mobility Research Center
• Workshop Goals
• What is Mobile Health
• Plan for the Day
Welcome

• Assemble experts from industry, healthcare and academia
• Address mobile health opportunities and challenges
• Identify key collaborative initiatives
• Commit to do something significant
• Come away informed and excited
Introductions

• Organizers: Martin Griss, Patricia Collins, Karita Ilvonen, Stacy Marshall
• Deans: Pradeep Khosla, Jim Morris
• Sponsors: SAP, Nokia, CyLab
• Students: Posters at breaks and lunch
• Speakers & Participants
Branch of Carnegie Mellon University, established 2002

Located at Moffett Field

Developing Software Leaders
Engineering, Business, Entrepreneurs

Education
MS Software Engineering
MS Software Management
MS Information Networking
ECE PhD

Research
Mobile applications & systems
Smart spaces
Software agents
Open source
Robotics

http://mobilityresearchcenter.org
Enriching anywhere, anytime computing

• Goals:
  – Novel mobile applications, devices & systems
  – Mobile companion vision
  – Multi-disciplinary research
  – Holistic, synergistic work
  – Large scale, experimental pilot(s)
  – Create collaborative community

• Bi-coastal program
  – Directors: Martin Griss, Priya Narasimhan
  – Associated bi-coastal ECE PhD

• Launched April 2008
Carnegie Mellon Activities

- Quality of Life Technology Center
- SmartSpaces – Eldercare
- Mobile Security and Privacy
- Context Aware Application
- Behavior & activity recognition
- ...

http://mobilityresearchcenter.org
Background

- A potential change in US healthcare?
- US healthcare more expensive than elsewhere.
- Shift to more patient-centric, out-patient services
- Shift to increasingly mobile lifestyle
- New funding to make a difference?

- Mobile Health could make a significant difference
Workshop Goals

- Identify ~3 “shovel-ready” collaborative initiatives: academia, healthcare + industry
- Marshal will, resources and plan to begin
- Identify impediments and potential solutions

- Think globally, act locally: launch local initiatives, tap into Silicon Valley uniqueness

- DO SOMETHING!
Mobile Health

- Anything mobile related to anything in health care and wellness
  - Sensors, phones, vehicles, tagged objects
  - Patients, doctors, other healthcare professionals & caregivers, ….
  - People, equipment, supplies, drugs, …
  - Exercise, chronic conditions, eldercare, …
  - Patient-centric vs caregiver-centric
  - Mobile vs home vs clinic vs hospital
24 Position Papers

• Questions:
  – Vision: How will mobile health improve outcomes, reduce costs and/or improve patient (and provider) experiences?
  – What are the most pressing business, process, organization, cultural and technical issues in mobile health?
  – What are best opportunities for collaborative university research?

• Broad range of responses

  – Eldercare, gerontechnology
  – Chronic disease management
  – Telehealth
  – Electronic medical records
  – Patient-doctor communication
  – Integrate sensors & infrastructure
  – Personal health space
  – Interoperable devices and systems

  – Professional-professional communication
  – Healthcare supply chain mgmt.
  – Behavior modification
  – Patient & caregiver education systems
  – Regime compliance & support
  – Open source
  – Non-intrusive, continuous monitoring
Many Consortia & Groups

- Continua Healthcare Alliance
- Joint Venture Silicon Valley’s Smart Health Initiative
- Foundation for Informed Medical Decision Making
- Smart Silvers
- ...
### Plan for Day

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9.00</td>
<td>Welcome &amp; Goals</td>
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<tr>
<td></td>
<td>Martin Griss</td>
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<tr>
<td>9.15</td>
<td>Talk: Paul Lillrank</td>
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<td>9.45</td>
<td>Talk: Naomi Fried</td>
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<td>10.00</td>
<td>Talk: Oren Rosenbloom</td>
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<tr>
<td>10.15</td>
<td>Discussion</td>
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<tr>
<td>10.30</td>
<td>Break - Posters &amp; discussion</td>
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<tr>
<td>11.00</td>
<td>Breakout 1</td>
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<td>11.45</td>
<td>Report back</td>
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<tr>
<td>12.15</td>
<td>Lunch - Posters &amp; discussion</td>
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<tr>
<td>1.30</td>
<td>Talk: Don Jones</td>
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<td>1.45</td>
<td>Talk: Yacine Belala</td>
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<td>Keith Klemba</td>
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<td>2.00</td>
<td>Talk: Benay Dara-Abrams</td>
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<td>2.15</td>
<td>Talk: Dan Siewiorek</td>
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<td>2.30</td>
<td>Discussion</td>
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<tr>
<td>2.45</td>
<td>Break</td>
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<td>Posters/discussions</td>
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<td>3.15</td>
<td>Breakout 2</td>
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<td>4.00</td>
<td>Report back</td>
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<tr>
<td>4.30</td>
<td>Wrap up and next steps</td>
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