Aging and Mobile Health Technology

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Aging in Place Technology Watch

November, 2011
Technology change can be daunting

When I was your age we didn’t play video games or take photos or locate things—we just did one thing and we took our sweet time doing it.

Source: The New Yorker
Does engagement dwindle along with mobility or memory?

Engaged with:
- Family
- Friends
- Church
- Volunteering
- Hobbies
- Work
- Learning

Isolated from:
- Family
- Friends
- Church
- Volunteering
- Hobbies
- Work
- Learning…
58% of US 65+ population has a cell phone (average 3 calls per day, 34% sleep with their cell phones)

31% of the 65+ population has a ‘broadband’ connection, up 1% from 2009 (Pew Research)

Only 42% of the 65+, 30% of the 75+ population goes online

Only 15% of iPad buyers are over the age of 56…(NielsenWire)

…But baby boomers are the fastest growing age segment of Facebook’s 800 million members

The fastest growing age demographic -- the 85+
# Older adults and Internet technology (Pew)

<table>
<thead>
<tr>
<th>Category</th>
<th>All</th>
<th>Boomers (50-64)</th>
<th>Seniors (65+)</th>
<th>Comment/ Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>79%</td>
<td>78%</td>
<td>42%</td>
<td>% of all adults</td>
</tr>
<tr>
<td>Use search daily</td>
<td>59%</td>
<td>52%</td>
<td>37%</td>
<td>% adults w/Internet</td>
</tr>
<tr>
<td>Use video sharing site</td>
<td>71%</td>
<td>54%</td>
<td>31%</td>
<td>View YouTube, % adults use of video</td>
</tr>
<tr>
<td>Seek Health info</td>
<td>59%</td>
<td>58%</td>
<td>29%</td>
<td>% adults w/Internet</td>
</tr>
<tr>
<td>Social network</td>
<td>61%</td>
<td>47%</td>
<td>26%</td>
<td>% adults w/Internet</td>
</tr>
</tbody>
</table>
Older adults and online technology (Pew)

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</tr>
</thead>
<tbody>
<tr>
<td>Have cell phone</td>
<td>85%</td>
<td>85%</td>
<td>58%</td>
<td>% all adults</td>
</tr>
<tr>
<td>…Smart phone</td>
<td>35%</td>
<td>24%</td>
<td>11%</td>
<td>% all adults</td>
</tr>
<tr>
<td>Internet calls</td>
<td>24%</td>
<td>19%</td>
<td>18%</td>
<td>% all adults</td>
</tr>
<tr>
<td>Have E-Reader</td>
<td>12%</td>
<td>13%</td>
<td>6%</td>
<td>% all adults</td>
</tr>
<tr>
<td>Have a tablet</td>
<td>8%</td>
<td>8%</td>
<td>2%</td>
<td>% all adults</td>
</tr>
<tr>
<td>Have mobile health app</td>
<td>9%</td>
<td>6%</td>
<td>5%</td>
<td>% adult cell phone users</td>
</tr>
</tbody>
</table>
Four aging in place technology categories

Communication and Engagement
- Email, Chat, Games, Video, Cell phone, Smart phone, Tablet, PC, Mac

Safety and Security
- Security, PERS, Webcam, Fall detection, Home monitor

Health and Wellness
- mHealth apps, Telehealth, Medication mgmt, Disease mgmt, Fitness

Learning and Contribution
- Legacy, Education and learning, Volunteer, work
Aging status changes vary an individual’s needs over time

- **Home Safety**
  - Alarm system

- **Personal Status**
  - E-mail, phone, Video, chat

- **Personal Safety**
  - PERS, Fall Detection, Home Monitor

- **Personal Health**
  - Medication Reminders, Wellness Guides

- **Personal Medical Status**
  - Chronic disease monitors

Time: Independent to Frailer
The looming crisis of care

- **2010**: 39 million seniors 65+
- **2015**: 55 million seniors 65+
- **2020**: 65 million seniors 65+

- **Growth Rate**: $40K/year for Assisted Living 2010*
- **Cost of care?**: $51K/year Assisted Living**

*Source: 2010 MetLife Market Survey of Nursing Home, Assisted Living, Adult Day Services, and Home Care Costs
**Source: Amer. Association LTC & MetLife
***Source: National Clearinghouse Direct Care Workforce

**Population growth projection from US Census**

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Wellness
- Caregiving
A day in the life: Tech-enabled relationships – meet Margaret

Senior living at home
• Passes doorway motion sensor
• Puts on wearable fall detector
• Receives reminder to take meds
• Gets a video call from grandkids
• Requests a transportation pickup
• Participates in online hobby forum
• Attends online learning course

Long-distance Family
• Makes the video call
• Shares trip photos
• Sets up family tree

Family/Caregivers
• Updates personal health record
• Preloads medication canister
• Sets med reminder schedule
• Configures notification phone list
• Receives home-related alerts
• Enters daily activity onto portal

Healthcare Providers
• Updates personal health record
• Writes ePrescription
• Checks downloaded data from wearable blood pressure cuff
• Answers e-mail question
• Provides a video consultation

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A wave of technology to help Margaret and her family

- PointeWare
- Microsoft Kinect
- Optelec
- Telikin
- GrandCare
What if Margaret had dementia?
Fewer boxes, less data, more information

- **Referral channels should be critical**
  Identifying and marketing to common needs
  - Health and home care provider
  - Social services
  - Geriatric care managers

- **Who goes into the home?**
  Tablets, TVs, smart phones, wireless, with sensors and cameras in and around the home, easily switched on and off

- **Who connects the home and the individual?**
  - ISP Network provider
  - Cable company
  - Security dealer or PERS reseller
  - Cell or smart phone provider
Applications will meet social needs:

- **Subscription**-based services – opt-in
- **Systems** to link home to outside – for health-related monitoring or for sharing information
- **Wearable** inside and outside
- **Passive** without intrusion
- **Discovery** and finding people with common interests
- **Opt-in** information and connecting to services (health, safety, work)
- **Blurred life stages** – available as needed independent of age
- **Mobile** – applications will follow the person from home or away
Aging in place market silos will overlap – it’s already happening

- **Home automation** bundles as a service will become a feature – 20% of CE vendors are now interested in aging
- **Security vendors** will provide interfaces for healthcare devices
- **Carriers will offer health-apps** through partners, layered on discount bundles
- **Remote healthcare services** will partner with security and home monitoring
- **Vendors will band together** – see AgeTek Alliance
Barriers and disconnects

- Only incremental growth in tech access of oldest adults, hamstrung by current economy
- U.S. adults living with chronic disease are significantly less likely than healthy adults to have access to the internet (62% vs. 81%) (Pew)
- Monitoring tech and chronic disease invite the reimbursement debate and consumer distraction
- New tech niches are interesting, but rarely marketed as solutions
- Mainstream tech like smart phone shuts out seniors
- Referral channels are interested, but not fully engaged
- Resellers are engaged, but not necessarily selling through
- VCs are intrigued, but not necessarily funding the small and the weak
How large is the market?

- Games/Fitness
- Computers/TVs
- Web cameras
- Smart phones
- Chronic disease mgmt
- Caregiving
- Home automation
- Mobility aids
- Fall detection
- Fall prevention
- Car safety technology
- ???

Growth Rate $:

2008 $2 billion

2010

2015

2020 $20 billion...

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Thank you!

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