

# New Frontiers in Healthy Aging

- ✓ What are the emerging technologies to improve the aging and caregiving experience?
- ✓ Why is innovation in the aging space so important? What are opportunities?





# Aging Services Technologies: Opportunities for Partnership with Long- Term, Post-Acute and Community Care Providers

with MAJD ALWAN, PH.D.

# Why CAST? Why is Technology a focus area for LeadingAge?



- Technology is a business imperative.
- Increasing demands for documented quality.
- Increasing pressures for improved communication and coordination.

# Models & Enabling Technologies

## Integrated/ Coordinated Health Care

- + Interoperable EHRs & HIE
- + Remote Monitoring/ Telehealth
- + Care coordination tools

## Community-Based Support Services

- + Interoperable EHRs & HIE
- + Remote Monitoring/ Telehealth
- + Care coordination tools

## Real Estate Based

- + Interoperable EHRs & HIE
- + Remote Monitoring/ Telehealth
- + Care coordination tools

- + Remote monitoring and assistive devices
- + Wellness & quality of life

- + Remote monitoring and assistive devices
- + Wellness & quality of life
- + Facility management

[http://www.leadingage.org/uploadedFiles/Content/About/CAST/CAST\\_Scenario\\_Planning.pdf](http://www.leadingage.org/uploadedFiles/Content/About/CAST/CAST_Scenario_Planning.pdf)

# Aging Services Technology (AST) Study



U.S. Department of Health and Human Services  
Assistant Secretary for Planning and Evaluation  
Office of Disability, Aging and Long-Term Care Policy

## REPORT TO CONGRESS:

### AGING SERVICES TECHNOLOGY STUDY

June 2012

<http://aspe.hhs.gov/daltcp/reports/2012/ASTSRptCong.pdf>

<http://aspe.hhs.gov/daltcp/reports/2012/ASTSRptCong.shtml>

# Care Issues, Prevalence and Cost

- Chronic Conditions 80% \$484B + \$279B Caregiving
- Medications 400K ADEs <50% Adherence \$177B
- Falls 33% \$19B
- Cognitive Impairments 16% \$183B
- Vision (44%) and Hearing Loss (up to 40%) \$179B
- Depression 1-25% \$83B
- Immobility 4-11% \$17.1B
- Functional Decline 25-83% \$236B ADL/IADL, \$375B (\$522B is the 2014 estimate) in family caregiving.

**8 Conditions  
Cost over \$1  
Trillion**

**Prevention**  
offers the Best ROI



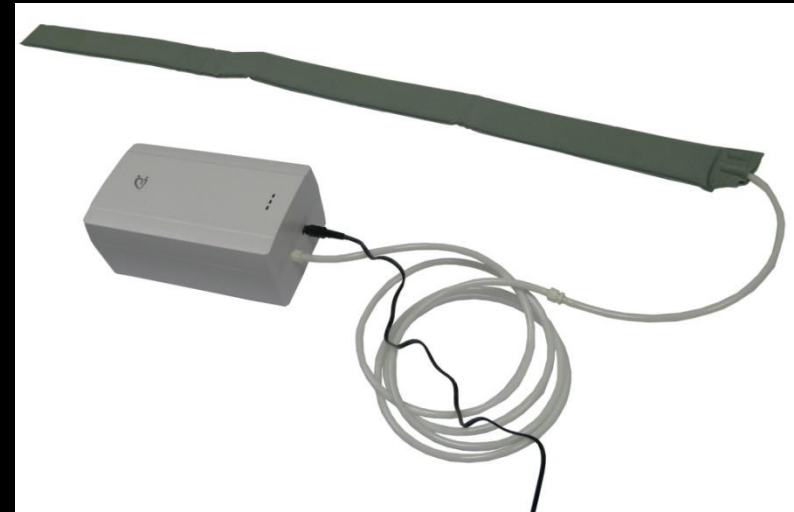
# TECHNOLOGIES FOR TELEHEALTH



# TECHNOLOGIES FOR MEDICATION ADHERENCE



# TECHNOLOGIES FOR WELLNESS (ENVIRONMENT)



# Vision

High-Tech Aging:

# Challenge

Slow Adoption

# Why is Adoption Slow?

- Lack of Awareness
- Variability of Evidence of Value
- Absence of Business Models.

# Evidence of RPM Technologies

- Strong evidence of efficacy, especially when patient and physician are engaged
- Evidence of cost-effectiveness is weaker.

# Important Immediate Opportunities

- Health Reform Initiatives:
  - *ACOs*
  - *Bundling of Payments initiatives*
  - *Duals Programs*
  - *Medicaid Managed Care*
  - *Hospital Readmission Reduction Program.*
- **National demonstrations of innovative care models that are led by, or truly emphasize long-term and post-acute care:**
  - Start with cost-effectiveness evaluation of efficacy-proven technologies
  - Large scale demonstrations
  - Evaluations should be conducted in partnership with payers (CMS, Medicaid, private insurance, employee benefit programs, etc.) and providers, supported by technology companies.





# CAST Tools



# CAST Technology Selection Tools



EHR



Telehealth/RPM



Medication Management

[http://www.leadingage.org/Technology\\_Selection\\_Tools.aspx](http://www.leadingage.org/Technology_Selection_Tools.aspx)

# Visioning & Strategic Planning

Care setting  
and strategic  
goals

Target  
population

Technology  
Review:

- Desired IT infrastructure, embodiment and software options

Access  
requirements

Program  
support

Budget and  
resources

# Operational Planning

Multi-Disciplinary Team:  
Leadership,  
Clinical,  
Financial,  
Marketing and  
IT



Setting  
S.M.A.R.T Goals  
for your  
program

- Clinical, Satisfaction, Operational, Financial, etc.



Program Design

- Operating model, workflow and change management
- Specific patient population
- Business model, revenue sources and ROI



Program design will inform:

- Type of telehealth
- Embodiment (tied to care setting and patient population)
- IT infrastructure implies certain requirements, and your selection

# Participating Vendors



AMBIO HEALTH™

EXPERTS IN TELEHEALTH™

Home Monitoring  
by PHILIPS

Lifeline Medical Alert Service  
Telehealth Solutions  
Medication Dispensing Service



SILVERSPHERE  
POWERING THE BUSINESS OF LIVING

Honeywell  
HomMed



Viterion  
TeleHealthcare

VRI  
BE SAFE. LIVE WELL

Family Health Network  
connected for life™



# Online Telehealth Selection Tool



## CAST Telehealth and RPM Selection Tool

Thank you for using the CAST Telehealth and Remote Patient Monitoring (RPM) Selection Tool. This tool will be most useful after you have read our [2014 Telehealth & RPM Whitepaper](#) to understand the planning and requirements identification process.

We highly recommend convening a multidisciplinary team to define requirements for your organization's telehealth program.

Once you have defined such requirements, this tool can help you learn which of the reviewed telehealth and RPM products might meet your needs.

If you receive no results, consider excluding less important requirements to broaden the possibilities.

Our [2014 Telehealth Selection Matrix](#) provides a detailed review of available products and the functionalities they offer that allows you to drill down on the products shortlisted using this tool.

### Business Line/Care Applicability

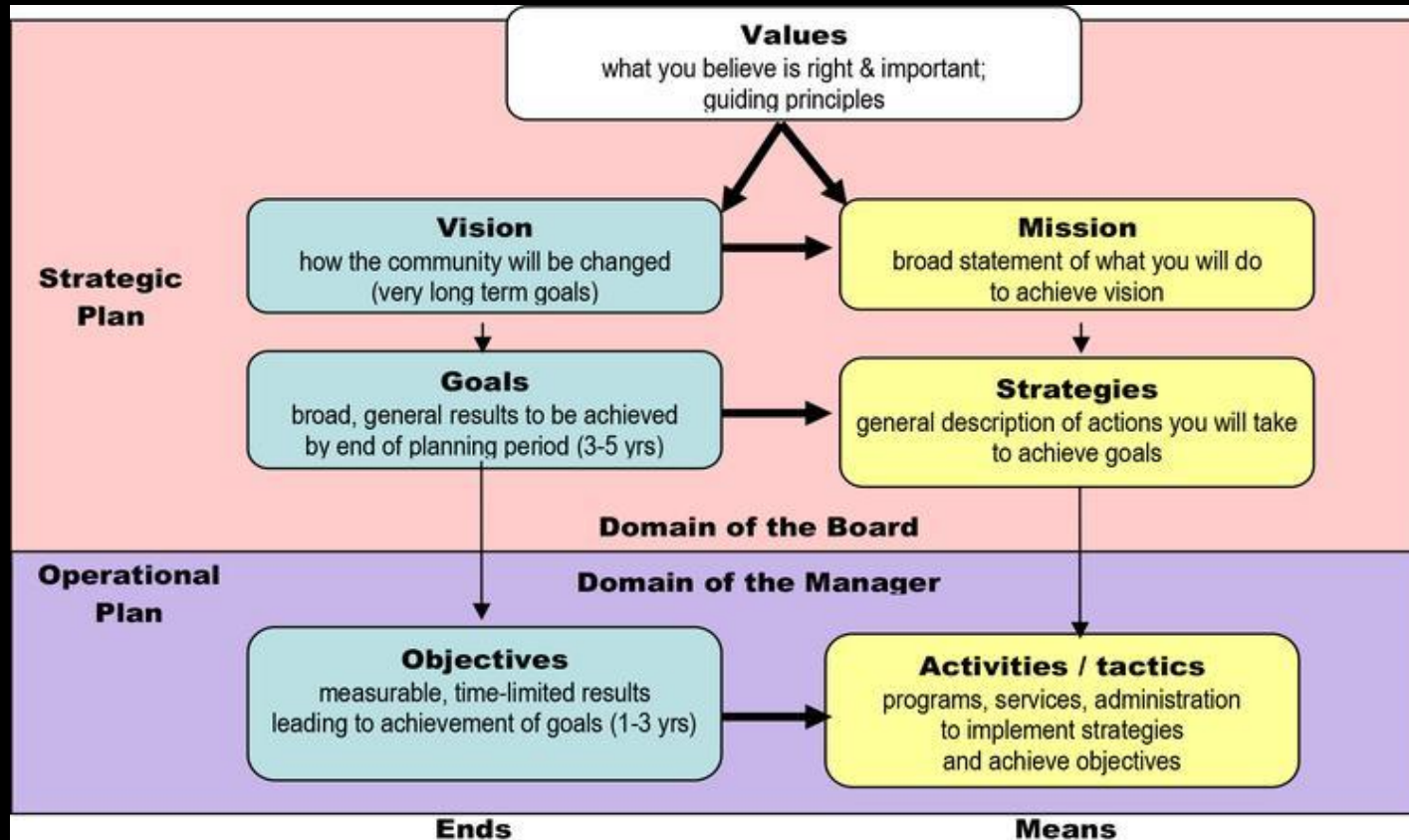
I need a telehealth and/or RPM system for:

- |                                                        |                                                                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Physicians' Offices           | <input type="checkbox"/> Long-term Acute Care Hospitals                                                                |
| <input type="checkbox"/> Emergency Department          | <input type="checkbox"/> Long-term Care Rehab Facilities                                                               |
| <input type="checkbox"/> Hospitals                     | <input type="checkbox"/> Skilled Nursing Facilities                                                                    |
| <input type="checkbox"/> Attending LTPAC Physician     | <input type="checkbox"/> Intermediate Care Facilities                                                                  |
| <input type="checkbox"/> Housing with Services         | <input type="checkbox"/> Intellectual Disabilities/Mental Retardation/Developmental Disabilities (ID/MR/DD) Facilities |
| <input type="checkbox"/> Home Health/Home Care         | <input type="checkbox"/> Continuing Care Retirement Communities (CCRC)                                                 |
| <input type="checkbox"/> Hospice                       | <input type="checkbox"/> Program of All-Inclusive Care for the Elderly (PACE)                                          |
| <input type="checkbox"/> Adult Day Care/Senior Centers | <input type="checkbox"/> Accountable Care Organizations (ACO)/Integrated Delivery Networks (IDN)                       |
| <input type="checkbox"/> Assisted Living Facilities    | <input type="checkbox"/> Multiple Site Integration                                                                     |

<http://www.leadingage.org/telehealth/search.aspx>

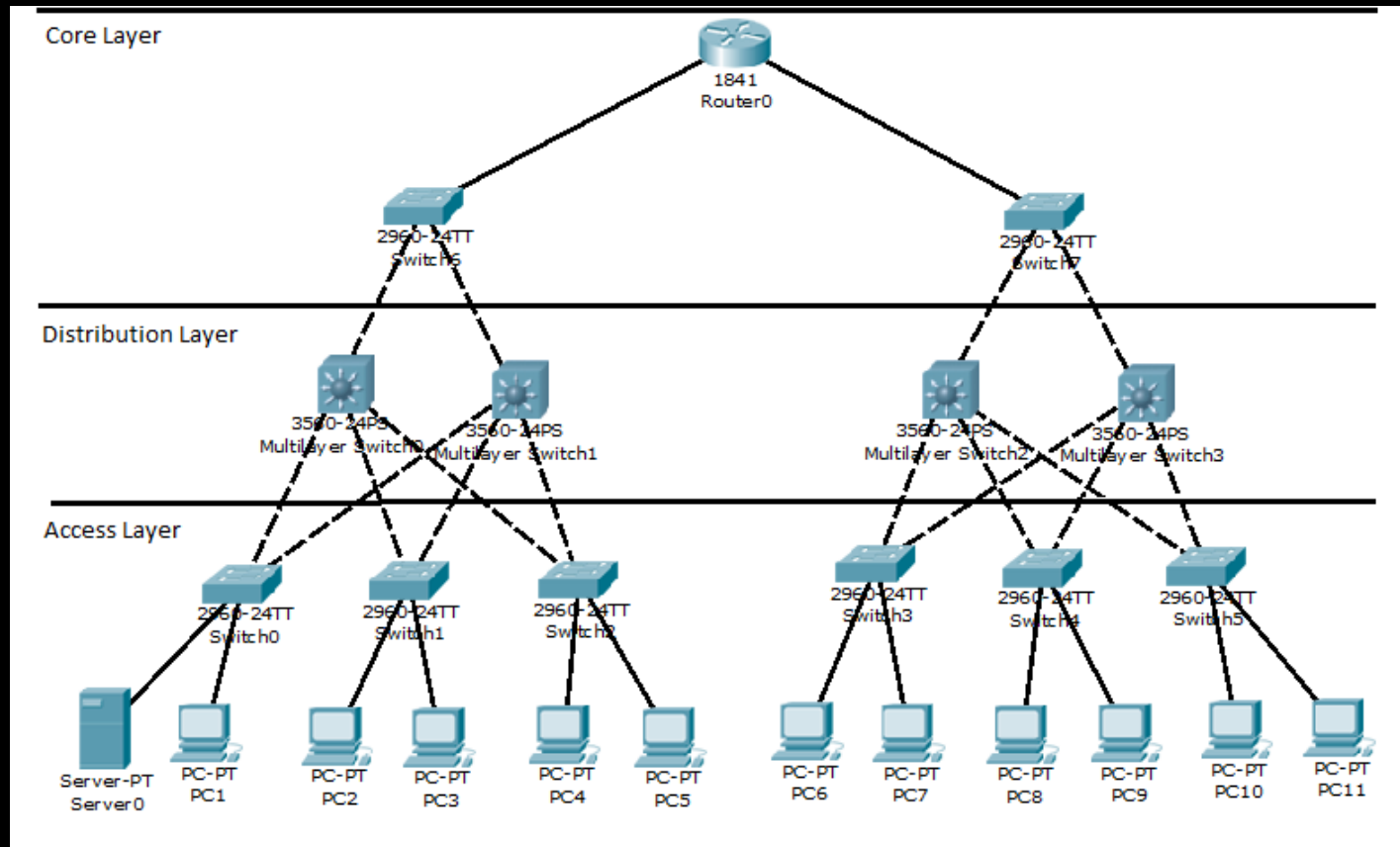


# CAST Strategic Planning & Strategic IT Planning Workbook



[http://www.leadingage.org/  
strategicitplanning.aspx](http://www.leadingage.org/strategicitplanning.aspx)

# CAST Strategic Planning & Strategic IT Planning Workbook



[http://www.leadingage.org/  
strategicitplanning.aspx](http://www.leadingage.org/strategicitplanning.aspx)



# Strategic Planning and Strategic IT Planning for Long-Term and Post-Acute Care (LTPAC) Providers:

A "HOW TO" WORKBOOK



*LeadingAge*<sup>™</sup> CAST  
center for aging services technologies

**<http://www.leadingage.org/strategicitplanning.aspx>**

*LeadingAge*<sup>™</sup> CAST  
center for aging services technologies

# More CAST Tools to Come...



Update Business  
Case Studies



Educational  
Modules



Activity/  
Behavioral  
Monitoring

# Encouraging Continuing Innovation



ABOUT

APPLY

JUDGES

SCHEDULE

SCENARIOS

TRAVEL AND VENUE

SPONSORSHIP

RESOURCES

CONTACT

## Engage With Age

Solving Challenges Related to Aging.

Special Thanks to The Asbury Group and Ziegler

BE A SPONSOR

<http://leadingagehackfest.org/>

LeadingAge™  
center for aging services technologies CAST

# AGING<sup>2.0</sup>

Global Network | Startup Accelerator | Venture Fund



Aging2.0 is a global innovation network.  
Our mission is to connect, educate and support  
innovators in aging and long-term care



# MORE MOBILE PHONES THAN TOOTHBRUSHES



Source: Flickr / deanasteere

5

hours

...increase in life expectancy per day

AGING

TECHNOLOGY



# WE NEED A MINDSET SHIFT

## AGING “1.0”

CHALLENGE

MEDICAL

CHARITY-BASED

INDUSTRY & ORG SILOES

REGIONAL

## AGING “2.0”

OPPORTUNITY

HEALTH, WELLNESS, LIFESTYLE, TRAVEL

FOR-PROFIT & NON-PROFIT

HOLISTIC, COLLABORATIVE

GLOBAL



**AGING POPULATION**

**Meager Retirement Savings**

**Gov't Budget Deficits**

**Healthcare Reform**

**Cost of Healthcare**

**10,000 turn 65 EVERY DAY**

**Increase in chronic disease**

WE DO PLAN TO SWERVE AT THE LAST MINUTE, RIGHT?

HONK

HONK

D.C.



# [MISSED] OPPORTUNITY COSTS

Lack of Innovation =

- Loss of relative quality
- Loss of efficiency
- Risk exposure (underutilize tools available)
- Lower customer satisfaction
- Lost revenue opportunities
- Blindside disruptions
- Getting left behind

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Our mission is to connect, educate and support  
innovators in aging and long-term care



# GLOBAL NETWORK

## LOCAL CHAPTERS

**14**

ACTIVE  
CHAPTERS

**36**

DEVELOPING  
CHAPTERS

**9**

COUNTRIES

## EVENTS

**85+**

EVENTS

**22**

CITIES

**9**

COUNTRIES

## NETWORK

**10k+**

NEWSLETTER  
SUBSCRIBERS

**1k+**

STARTUP  
DATABASE

**500+**

SENIOR  
CONSUMER PANEL

## CONTENT

**100**

BLOG POSTS

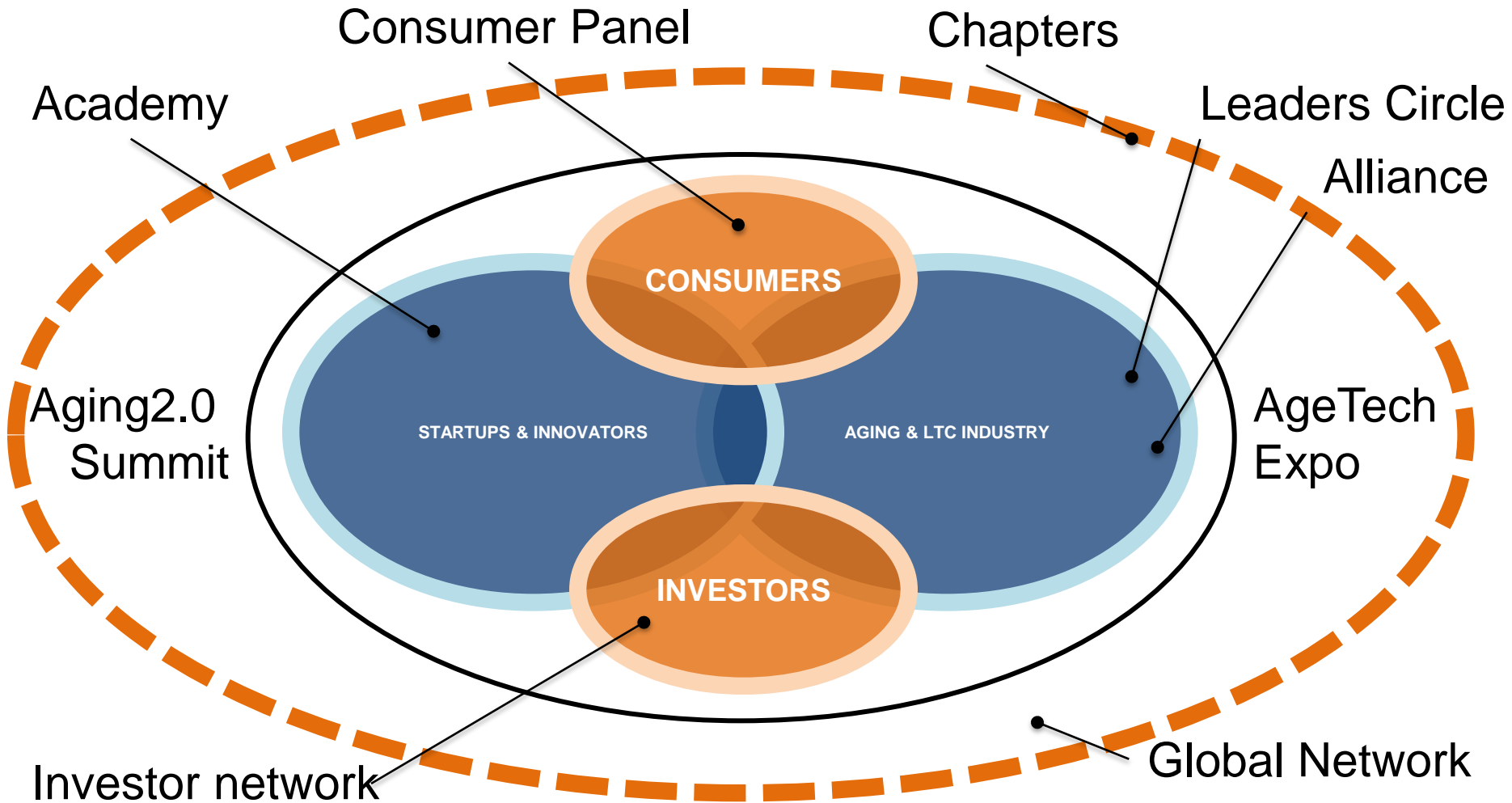
**150**

VIDEOS

**44**

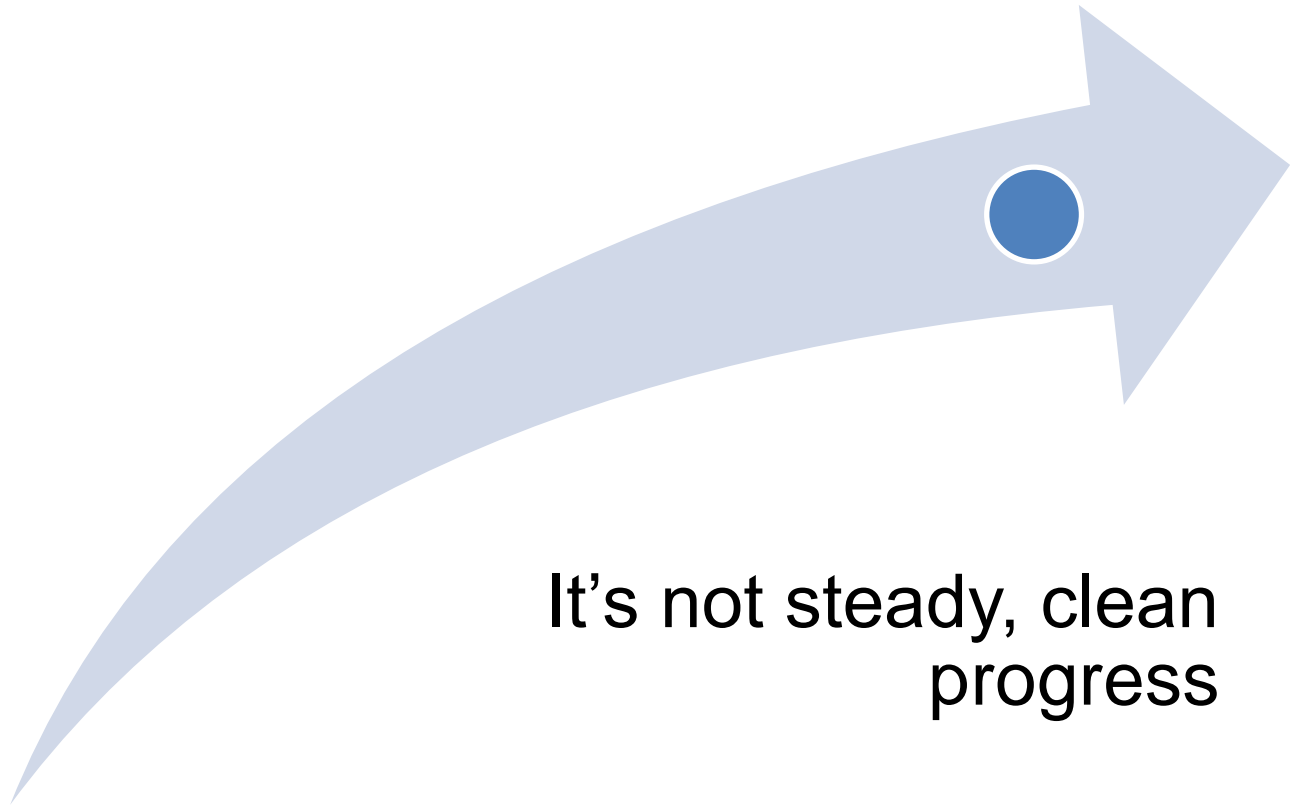
NEWSLETTERS

# AGING2.0 PROGRAMS



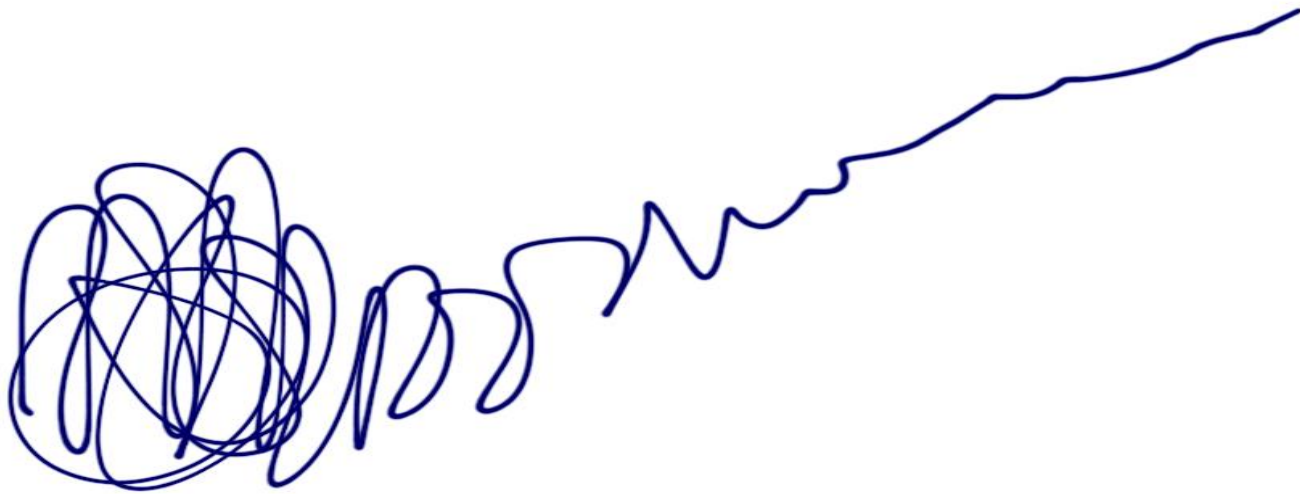
# Aging2.0's Approach

# INNOVATION DOES NOT HAPPEN LIKE THIS



It's not steady, clean  
progress

# IT HAPPENS LIKE THIS



It's messy, steady progress



# 2014 – 2015 ACADEMY COHORT

## FACILITY OPERATIONS



## FALLS/MOBILITY



## COMMUNICATION & CONNECTIVITY

**Breezie**



## CAREGIVER SUPPORT



## MAXIMIZING INDEPENDENCE

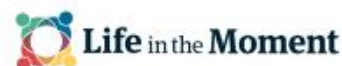


Narrative  
Apparel.

## END OF LIFE



## COGNITIVE IMPAIRMENT



## REHABILITATION



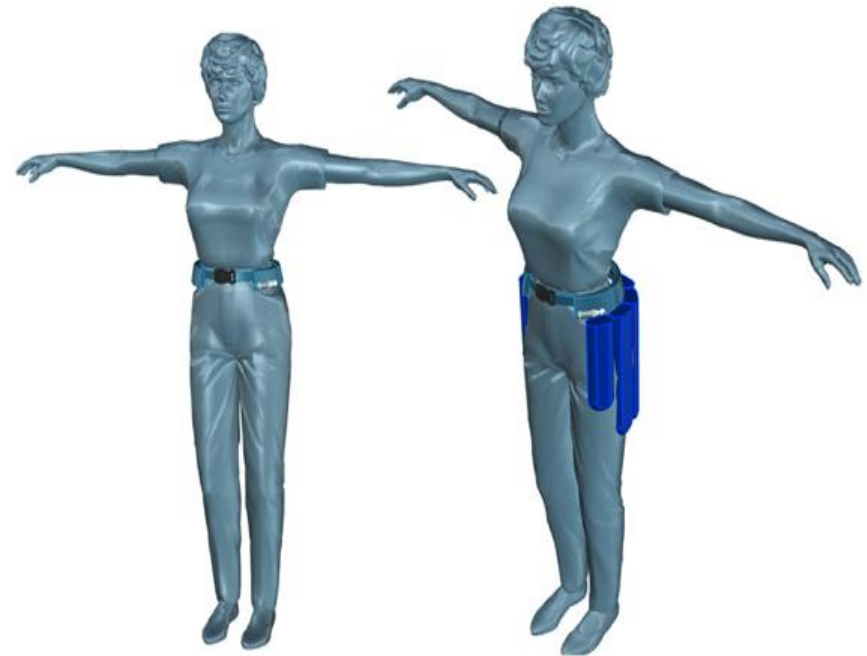


Accushield is a front-entry, digital, sign-in kiosk that screens and verifies third-party vendors and service providers.



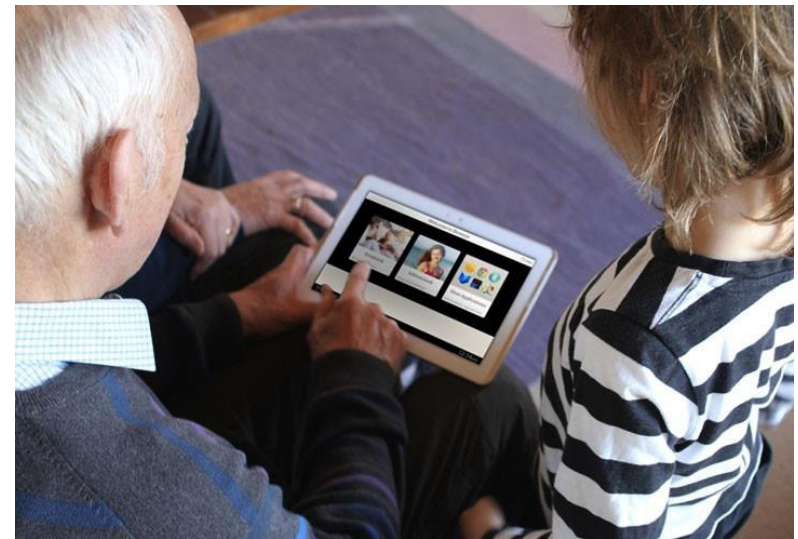


Active Protective produces smart garments that reduce hip fractures in the elderly by deploying micro-airbags to protect the hip in the event of a fall.



# Breezie

Breezie is a simplified, personalized tablet interface designed for seniors and those less familiar with technology.



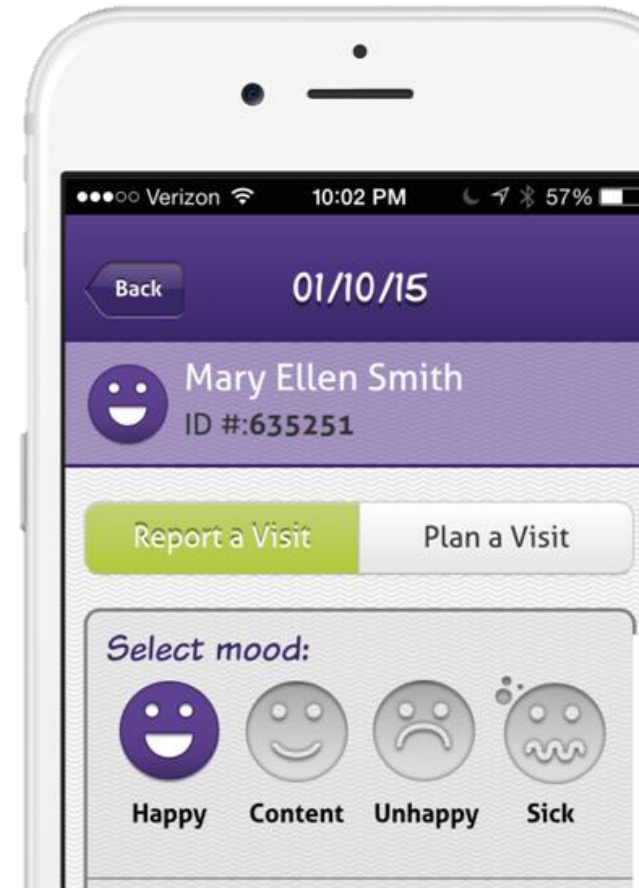


Smartstones is the world's first wearable, sensorial communication device, which connects family members and friends through simple gesture-based messages.





Care Monster is a caregiving app that supports family communication and encourages engagement when it comes to the care of a loved one.







Evermind creates age-friendly technologies that improve the lives of those who are living alone, or who need extra support, and the people who care about them by using electricity monitoring of home appliances, and other everyday objects.





Vynca is a digital health company that provides cloud-based software for Advance Care Planning.



EMPOWERING PATIENT CHOICES

[Learn More](#)

[Schedule a Demo](#)



Linked Senior is a cloud-based dementia and therapy engagement software for the senior housing market.





SingFit provides music therapy solutions that engage memory care and assisted living residents through song, which produces elevated mood, decreased agitation and better focus.



Call **323.677.2575** to  
get seniors shining with



# TAKEAWAYS FROM THE AGING2.0 ACADEMY

# DON'T WAIT FOR THE SILVER BULLET

- Utilization and happy customers, caregivers and families is better proof than regression analysis or ROI
- Do a SWOT analysis and jump in
- Keep it manageable, start with a pilot but plan for scale
- Establish clear goals, processes, communications and metrics
- Collaborate with innovative peers

THANK YOU

Carrie Gladstone  
Aging2.0 | Washington, DC Ambassador

carrie.gladstone@gmail.com



# SeniorNavigator & The Lindsay Institute for Innovations in Caregiving



# What is SeniorNavigator?

Online platform: [www.SeniorNavigator.org](http://www.SeniorNavigator.org)

The screenshot shows the SeniorNavigator website interface. At the top, there is a navigation bar with links for "Sign In/Contact", "Login or Register", and "How to use this site". Below this, there are logos for "SeniorNavigator" and "Lindsay Trullillo". The main content area features a large image of an elderly couple and a search bar with a "SEARCH" button. To the right, there is a sidebar with "Articles and Links" including categories like "Aging Well", "Caregiving", "Community", "Health", "Housing/Long-term Care", "Legal and Financial", and "Transportation". Below the search bar, there are sections for "Headlines" with news items, "Solution Centers" with various service icons, and "Supporters" with logos for SNAP, AARP, and the Virginia Caregiver Forum.

- Over 26,000 services searchable by city/county or zip code.
- 800+ Educational Articles
- Ask an Expert
- 744 Navigator Centers
- Topic Based Solution-Centers



"There are only four kinds of people in the world - those who have been caregivers, those who are currently caregivers, those who will be caregivers, and those who will need caregivers."

- Rosalynn Carter, Rosalynn Carter Institute for Caregiving



# The Lindsay Institute for Innovations in Caregiving



**Dr. Richard W. "Dick" Lindsay**



**Gordon Walker**


65 million family caregivers in U.S.

Over 80% of elder care provided by informal caregivers

Caregiving takes a toll on caregiver – emotionally and physically

**Need to focus on the invisible patient – the CAREGIVER**

# Goals of The Lindsay Institute for Innovations in Caregiving (CaregivingInnovations.org)

- Main Objective: To leverage best practices and technology to improve physical and emotional health of caregivers
  - Esteemed 23-member Advisory Council fosters unique partnerships and innovation development
  - Platform to share information on latest tech tools (apps/products)
  - **Caring for the Caregiver Intercollegiate Hack Event**  
Twitter: @caregiving\_inno, #Caring4CaregiverHack
- 

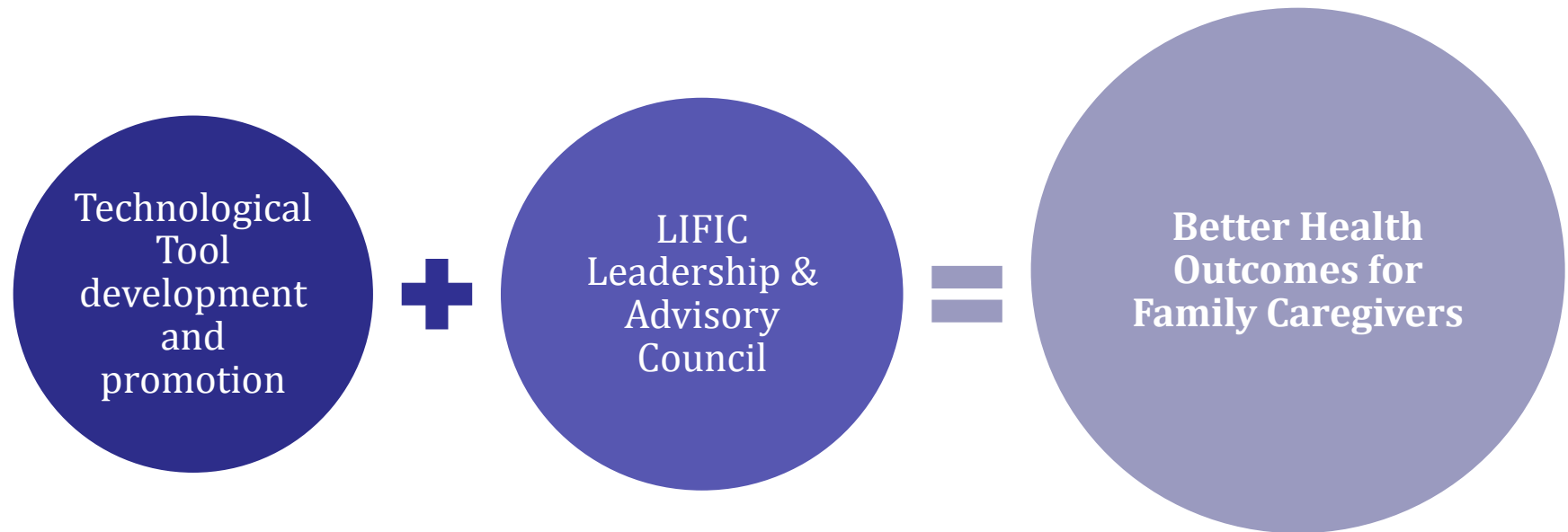
# Students Hack to Improve Caregiver Health -The Lindsay Institute's Signature Event-

CARING FOR THE  
CAREGIVER

HACK

- 7 teams of multidisciplinary college students spent weekend developing technology tools to improve caregiver health and wellness
- Teams led by faculty coach and paired with family caregivers
- Grand Prize: Team from VA Tech for *Carefood*.
- People's Choice: Team from GMU for *Family Room*.
- Amazing weekend, great tools created, positive response from all Participants (100%)

# A Formula for Improved Health of Family Caregivers





# **QUESTIONS FOR PANEL?**

**Adrienne Johnson**

[adrienne@SeniorNavigator.org](mailto:adrienne@SeniorNavigator.org)