Technology Innovation for Aging Society and Special Needs

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George Mason University
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Agenda

• Aging Society and Technology Landscape
• Assistive Technology Current Status, Need and Opportunity
• Challenges and What’s Needed
• ICT National Development Strategies, Aging Policies and Governance
Active Aging, Northern British Columbia, Prince George Citizen

“Healthcare in Japan”, Facts and Details

Memory Assistance Huffington Post

Aging in Place - Kiplinger
“Korea Grapples with Aging Workforce”
Korea Times

Shanghai Skyline, National Geographic

The Hindu, 2009

Human Events, 2012
“Where poverty is endemic, persons who survive a lifetime of poverty face an old age of deepening poverty”.
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<th>Country</th>
<th>% &gt; 60 2015</th>
<th>% &gt; 60 2050</th>
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<td>Viet Nam</td>
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</tbody>
</table>

World Population Aging Report 2015, United Nations
Technology Landscape
7 billion mobile subscribers (2015)

91 billion mobile apps downloaded (2013)

40 billion connected devices (2020)
Enabling
Chart 1.1: Global changes in major ICTs, 2000-2015*

- Mobile-cellular telephone subscriptions
- Population covered by a 2G mobile-cellular network
- Mobile-broadband subscriptions
- Households with Internet
- Individuals using the Internet
- Fixed-broadband subscriptions

Note: *ITU estimates.
Source: ITU.
Technology and Aging Current Status, Need and Opportunity
Panorama of ICT Aging Applications

Active Aging

Long Term Care

Healthcare

Social Inclusion

Aging in Place

Pensions

Disaster Resilience

Work and Workforce
International Classification of Functioning, Disability and Health (ICF) - WHO
Seeing and Hearing Impairment

Cognitive and Developmental Disability

Attention – Memory Training System, Infocomm Research, Singapore
Mobility

NASA X1 Robotic Exoskeleton
https://www.nasa.gov/offices/oct/home/feature_exoskeleton.html
Mobility

EyeGaze
http://soar.askjan.org/Product/az0yODYmdD0wJmk9MCZ2PTA%3D
Functional Decline and Independence Loss

Chronic Disease Management

http://googleblog.blogspot.kr/2014/01/introducing-our-smart-contact-lens.html
What are the Challenges and What’s Needed?
Challenges

- Coverage and digital divide
- Health literacy
- Doctor engagement
- Funding models for development
- Applicable technology
- Payor models and evolving regulation
- Standards
- Interoperability
- Market size
- Adoptability
- Integration into health and social care system
What’s Needed

- Engaging with users on requirements and needs
- Furthering support from the physician community
- Finding dual use and IP licensing opportunities
- Undertaking public private partnerships and a focus on scalability
- Adopting payor models and regulation that foster innovation while ensuring patient safety.
- Developing standards to broaden market size and interoperability
- Planning for technologies that are integrated into the healthcare and social care systems.
ICT National Development Strategies, Aging Policies and Governance
The 2nd National Plan on The Elderly (2002-2021)
1st Revised of 2009

The National Commission on the Elderly
The Ministry of Social Development and Human Security

Republic Act No. 9022

AN ACT GRANTING ADDITIONAL BENEFITS AND PRIVILEGES TO SENIOR CITIZENS, FAMILIES AND EXTENDS BENEFITS TO INDIVIDUALS WHO ARE ELDERLY, WOMEN, SINGLE PARENTS, AND VETERANS TO PROMOTE THE CONTRIBUTION OF SENIOR CITIZENS IN NATIONAL BUILDING, GRANT BENEFITS AND ATOMIC PRIVILEGES AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

Section 1. Short Title - This Act shall be known as the "Expanded Senior Citizen Act of 2001".

Section 2. Definitions - As used in this Act, the following shall mean:

"Senior Citizen" means a Filipino who is at least 60 years of age.

"Family of senior citizen" means any relative of a senior citizen related by blood, marriage or adoption to the elder, including the spouse.

"Elderly" means an individual who has attained the age of 65 years or older.

"Widow" means a woman who has lost her husband.

"Single Parent" means a woman who has borne one or more children and whose husband is dead.

"Member of veteran" means a living beneficiary of veteran's benefits.

"Beneficiary of veteran's benefits" means a legal heir or relative of a deceased veteran who was entitled to veteran's benefits.

Section 3. Grace Period - The grace period shall be extended to a maximum of five years.

Section 4. Benefits - Benefits under this Act are hereby extended to all senior citizens.

Section 5. Enforcement - The Department of Social Welfare shall enforce this Act by promulgating implementing rules and regulations.

Section 6. Penalties - Any violation of the provisions of this Act shall be punishable by a fine of not less than five thousand pesos and imprisonment for not more than six months, at the discretion of the court.

Section 7. Effectivity - This Act shall take effect immediately.

Approved and promulgated this 12th day of November, in the year two thousand and one, in the City of Manila.

[Signature]