THE ROLE OF MOBILE GOVERNMENT FOR AGING SOCIETY IN JAPAN


The World Summit on Mobile Government
9 May, 2017

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◆ Profile
◆ Professor, Institute of e-Government, Waseda University, Japan
◆ Senior Researcher, APEC e-Government Research Center
◆ President of Japan International Academy of CIO

◆ Research Area
◆ Mobile Government, ICT and Women, The Role of ICT Applications for Aging and Handicapped People, Core Competence of CIO (Chief Information Officer) in Information Society, Risk and Crisis Management including BCP (Business Continuity Planning)

◆ Academia
◆ PhD in Global ICT from Waseda University, and Master of International Relationship on the Establishment of Infrastructure for Aging Society from Waseda University, Japan

◆ Published Work
BACKGROUND OF THIS RESEARCH
JAPAN AS NO.1
SUPER AGEING SOCIETY IN THE WORLD

**Issue 1  Economic impact: Decline in growth potential**

1. labor shortage vs unemployed Aging people
2. Economic disparity = Rich vs Poor elderly / Local and urban area

**Issue 2  Social impact: Increasingly heavy pressure on social security and medical system**

1. Pension system demands reform
2. Increases in medical and healthcare expenses

**Issue 3  Demographic revolution**

1. 40% of population will be 60+ in 2050
THE FACT AND ISSUES OF THE SUPER AGEING SOCIETY IN JAPAN – 1

1. The ratio of 65-year-old population to total population is the 26% (2015), No.1 in the world.

2. Average life span for man is 81 years old, and female is 87 years old (2015).

3. In Japan 40 years from now, total population will decrease by over 25% based on the statistics in 2013.

4. About 50% of all voters will be ageing people within 5 years.

5. Ageing people (65 and beyond) spend a half of national healthcare expenditures. (medical expenses)

6. Victims of Tsunami are mostly the Aging people. About 80% of persons injured at big disasters (such as earthquakes, Tsunami and typhoons) and 50% of traffic accidents are aging people.
7. Average annual income of 30% of the aging is around 2 million yen or below and mainly income from pension.

8. Daily Walking coverage of seniors is limited to about 500 meters around the house.

9. About 30% of Japanese population are Ageing or handicapped.

10. 25% of ageing people live alone and the number is expected to increase. Aging people keep a half of total personal financial assets in Japan.

11. 80% of retired people look for jobs and only 20% can get jobs.

12. 80% of the retired people has only income from pension and saving.

13. 70% of the aging people is the Active Aging.
ICT AND AGING PEOPLE
POINTS THAT THE AGING EMPHASIZED WHEN PURCHASING SMARTPHONES

- The size of screen: 21%
- Operability: 17%
- Price: 12%
- Camera: 11%
- Design: 10%
- Brand: 9%
- Lightness: 7%
- Waterproof function: 5%
- Toughness: 4%
- Others: 3%
- Nothing: 1%

Mobile marketing data by labo 2015
THE REASON THAT THE AGING BOUGHT SMART PHONE

- Brand: 23%
- See and explanation at a storefront: 12%
- Promotion: 14%
- Recommendation of a friend and the family: 14%
- Touch at a storefront: 12%
- Shop assistant’s advice: 6%
- Reputation of a magazine and a net: 6%
- Other: 6%
- Nothing: 7%

Mobile marketing data labo 2015
GOAL: To promote Inclusive/empowered communities on silver aging society in local area by utilizing ICT applications on

**M-Agriculture**
- the role of Sensor Network and New Technology
- To expand the opportunity of work for aging People
- Revitalization of the economy by increasing elderly people’s job opportunity

**M-Health**
- To manage and support aging people
- Health enhancement of the elderly people by working

**M-Tourism**
- Convergence between young generation and aging generation
- Multi-generational harmonization by e-participation
「大月ウエルネス・ネットワーク」事業

提案者
大月市（自治体、大月短期大学、NPO法人おおつきエコビレッジ、公益社団法人東部広域シルバー人材センター）、学校法人早稲田大学、東日本電信電話株式会社、株式会社JTBコミュニケーションズ

実施地域
山梨県大月市

事業概要
本事業は、本市が従来から取り組んでいた「大月市の豊かな自然を活用した着地型観光」を、産学官民の連携により、高齢者を主要な担い手とする持続可能な事業運営スキームとして構築するものである。
本事業により、高齢者の積極的な社会参加を促し、ICTを活用して以下の3つの目的を実現する。
A. 高齢者の雇用機会増加による経済活性化 B. 新産業への就労による高齢者の健康づくり C. 住民参加による地域の多世代共生モデルづくり
SOCIAL PARTICIPATION – 1
AGING PEOPLE TEACH CITY STUDENTS “HOW TO WORK AT AGRICULTURE”
STUDENTS TEACH AGING PEOPLE “HOW TO USE TABLET”
e-Health for Disease Prevention

Implementing a large-scale social demonstration led by local governments and enterprises for the establishment and spread of a health (disease prevention) model that utilizes an ICT system and medical examination data while studying the ideal state of incentive measures, and promoting the model based on the results of the study.

Example (1) Health promotion based on medical examination data and health insurance claims

- Measurement of health data
- Visualization of health based on the accumulation and analysis of data
- Insurance provided by local governments and companies

**Rejuvenation of physical fitness age**

- Registration
- Body composition
- Pedometer

Conducting a large-scale society demonstration.

* Providing incentives

Promoting a behavioral change to achieve the promotion and maintenance of good health

Contents of specific measures

Establishing and spreading a health model utilizing ICT. Promoting measures to encourage the entire nation’s awareness and behavioral change regards to disease prevention.

Example (2) Health promotion of elderly people through farming work opportunities

- Each producer harvests tsumamono (seasonal leaves and flowers that adorn traditional Japanese dishes mainly in restaurants) based on orders, and forecasted trends of the market.
- Collecting and transporting the harvested tsumamono to the warehousing and shipping yard.

**Warehousing and shipping yard**

- Understanding market conditions and providing information.
- Collecting tsumamono in response to demand, and shipping it throughout Japan.
- Tsumamono-dedicated PC

Sharing current ordering information and market conditions.

Sales increased by approximately 1.5 times after the implementation of the project.

Case example in Kamikatsucho, Tokushima Prefecture

- Health promotion
  - Elderly people’s annual health care spending per capita decreased to a little more than 600,000 yen (while it reaches almost one million yen in other municipalities).
  - The population ratio of elderly people is as high as 52.4%, the number of bedridden elderly people is zero (as of April 2010)

- Establishment of economic efficiency
  - Sales increased by approximately 1.5 times after the implementation of the project.

- Contents of specific measures
  - A demonstration of promoting the establishment and spread of a health model that provides people with various local work opportunities to improve their health, along with an increase in the economic efficiency of the local area, such as in elderly people’s engagement in farming.

Cases in Mitsuke, Niigata Prefecture

- A demonstration of promoting the establishment and spread of a health model providing people with various local work opportunities to improve their health, along with an increase in the economic efficiency of the local area, such as in elderly people’s engagement in farming.

- Elderly people’s annual health care spending per capita decreased to a little more than 600,000 yen (while it reaches almost one million yen in other municipalities).

- The population ratio of elderly people is as high as 52.4%, the number of bedridden elderly people is zero (as of April 2010)
WHAT IS THE ROLE OF ICT APPLICATIONS FOR AGING SOCIETY?
EMPLOYMENT FOR THE AGING PEOPLE

ICT X Employment
• Some earn more than ¥10 million a year by “Irodori Business”

✓ The Irodori project sells some 320 different kinds of leaves ranging from autumn leaves to pine needles used for Japanese-style table settings.

✓ The average age of the farmers involved in the project is 70, and many are women.

✓ Irodori members use tablet computers to check for updated information on orders. The leaves are grown in their own mountains and fields, then distributed to markets across Japan via an agricultural cooperative.

✓ The employment rate of more than 60-year-old men and women has been increased 5% points → Contributing 0.16% to the growth rate (annual rate)

Social participation

Monitoring Operators (KOKOROMI)

- There are some operators that confirm the safety of the ageing living alone.
- The aging can receive 2 phone calls per week from acquaintances.
- The operators confirm the ageing’s safety and report to their family.

Delivery Service providers (One Mile)

- The Confirming the safety of the seniors living alone by home delivery service providers.
- The staff of providers visit the ageing’s home once a week and delivery the merchandises and various services.
- Providers cooperate with the local nursing care services and the newspaper delivery station.

Senior Care service providers (DUSKIN Home instead)

- Care for Dementia
- Provide various services not covered by medical insurance, long-term care insurance.
- They provide the only detailed services except for public insurance. A member store are rapidly expanding, with more than 100 stores.
Improvements in ICT Literacy
Achievement of New Work Styles

- Providing support to the securing of local places, where people can learn together how to use ICT and exchange what they learn, allocation of supporters, and development of curricula in cooperation with local governments in order to construct a social environment where elderly people can use ICT and participate in community activities.
- Utilizing ICT applications, such as telework, and demonstrating a new employment model that will enable motivated elderly people to find work with ease, and spreading the model based on the results of the demonstration.

Making friends
Volunteer activity
Participation in local action

Improvements in ICT literacy
Use of text

Achievement of new work styles

- With the use of ICT, motivated elderly people will start working.
- Securing employment opportunities through telework for people who had to leave work to take care of elderly family members.

Contents of specific measures
- Integrated promotion of measures for ICT literacy improvements leading to the activation of communication.
  - Securing places (i.e., community centers, schools, vacant facilities) where people can exchange what they learn, and constructing a mechanism to understand users’ needs.
  - Allocating activity supporters in cooperation with senior volunteers
  - Developing curricula and textbooks, and setting evaluation guidelines for the target attainment level of ICT learning
LIFE LONG EDUCATION

✓ Life-long education: Encouraging senior citizens to participating in knowledge-based society through distance and lifelong education as a part of e-participation/e-Inclusion

✓ ICT X Education
E-learning: The market size of e-learning is 1.73 billion yen in 2015

Issues

• Accessibility to the people with special needs
• Accessibility of Web sites / Applications
• Digital divide
• knowledge or “Digital skills”
Interactive communication with social media in disaster

Combine data on crowded area with local voices

1. Visualize the data to capture the real-time situation
2. Capture trend and information in detail
3. Capture the whole picture of the situation (local voices)
4. Further information on specific situation
5. Read text messages

Grasp the real-time situation!!
Image: how it works

Train & Bus/Status

- 山手線: 運休 cancelled
- 埼京線: 運休 cancelled
- 半蔵門線: 運転再開 resumption
- 副都心線: 運転再開 resumption
- 東横線: 運転再開 (22:30)
- 田園都市線: 運転再開 (22:30)
- 井の頭線: 運転再開 (22:10)
- 一部運行

Number of text message about "danger"

Population density
- Over 40,000
- Over 30,000
- Over 20,000
- Over 10,000
- Over 5,000
- Less than 5,000

Area where increased 20% in population density compared with previous 1 hour.

- fire
- blocked
- Evacuation center

Shibuya station is currently VERY crowded!!

Evacuation center is this way!

Please go around!!

Shibuya station is currently VERY crowded!!

Shibuya station is currently VERY crowded!!

Shibuya station is currently VERY crowded!!
Japan has made great progress in terms of developing policies aimed at promoting ICT applications and accessibility of ICTs to meet the needs of its citizens.

- Measurements aimed at inclusion of the people addressed by the government in general policy areas as well as in specific legislation and regulations are beneficial for several fields.

Social media
- which has substantially changed the way organizations, communities, and individuals communicate.
- which provides a powerful platform to help government communicate directly with people and be more visible on the Web.
- more useful empowerment of aging people as a tool of e-participation.
- The best services to people through different ways like SNS and open data with a shared database can be effective in aging society.
SUGGESTIONS FOR DEVELOPING SMARTER AGE-FRIENDLY MOBILE SOCIETY

Inclusive Mobile Society
• Mutual assistance of the neighbors in community
• Building Silver-friendly smart city with historical convergence of Ageing and Information societies
• Life-long education: Encouraging aging people to participate in knowledge-based society through distance and lifelong education as a part of e-participation

Establishment of Academic Consortium for Age Friendly Mobile Society
• Building upon connections of aging society and Mobile society and the quadruple helix of people, government, private sector and academia

Innovation for ICT application and New technology
• The utilization of emerging ICT such as Robot, 5G, IoT, M2M, Big Data, is essential for Aging society.
## SUGGESTIONS FOR DEVELOPING SMARTER AGE-FRIENDLY SOCIETY - 2

### Employment
- Elderly employment: Creating a new elderly employment systems and markets such as teleworking and 3-day/week work
- Training for new jobs and support on silver business as inclusiveness for aging people

### Transformation to Aging Society
- Elderly Housing: Promoting “Smart Homes” for the aging and expanding ICT-based nursing homes program
- Healthcare: Expanding efficient hospitals and healthcare systems by healthcare computerization

### Support for SDG related to Aging Society
- Innovative strategies and sound initiatives of digital inclusion with empowerment of active aging people
- *Global cooperation to create “Active and Health Aging Society” by the evaluation of Mobile innovation strategy*
Japan may be able to afford sophisticated ICT applications for the aging people as becoming the only Super-aged Society in the world.

Proper adaptation to local needs by universal design, resource endowment (such as labor supply), and cultural setting are important.

Technological and mobile service innovations are the key for solution.

m-government can be the center of new economic growth.
THANK YOU VERY MUCH