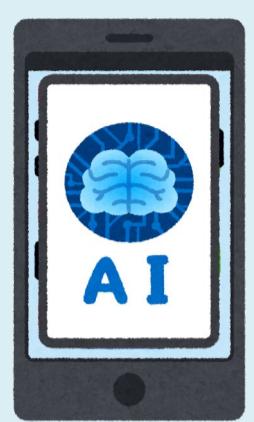


Determinants of ICT Acceptance Among Elderly People in Japan

Insights for Promoting Decentralized Personal Data Management Applications

Ikuko Tsumura, RIKEN AIP

Background



✓ The challenge of Japan's super-aging society

- Digital health technologies are expected to reduce the burden on care systems

⇒ Since 2021, we have conducted a pilot project with older adults using PD App* in Japan.

*A smartphone-based personal data application designed to support health monitoring for older adults.

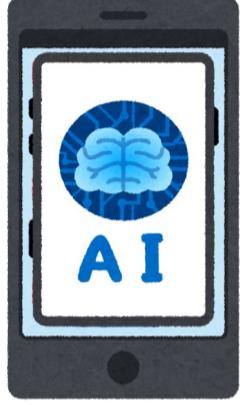
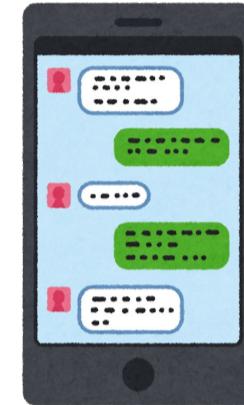
⇒ The older adult participants did not actively use apps.

Why do older adults often remain reluctant to adopt new technologies?

⇒ We conducted a web-based survey among 700 smartphone users aged 60 and above in Japan.

Objectives

VS



- Investigate determinants of ICT acceptance among older adults
- Compare privacy and usability concerns across age groups
- Examine reactions to being prompted to register for LINE*

*LINE is a widely used messaging app in Japan.

Methodology

- Web-based survey of 700 smartphone users aged 60 and above.
⇒ LINE app adoption behavior and privacy attitudes.

Results / Major Findings

■ Reasons why respondents did not use LINE

	n=94
Communication by phone calls or in person is sufficient	53 56.4%
I am concerned about privacy when communicating online	29 30.9%
I am worried about security risks such as viruses and fraud	26 27.7%
Communicating with friends or family face-to-face is better	22 23.4%
I thought LINE operations were difficult	18 19.1%
Using the Internet or apps is troublesome; there is too much information to keep up with	18 19.1%

Ages 60–69 (n = 49), Ages 70 and above (n = 45)

	Ages 60–69		Ages 70 and above	
Communication by phone calls or in person is sufficient	23	46.9%	30	66.7%
I am concerned about privacy when communicating online	21	42.9%	8	17.8%
I am worried about security risks such as viruses and fraud	16	32.7%	10	22.2%
Communicating with friends or family face-to-face is better	9	18.4%	13	28.9%
I thought LINE operations were difficult	8	16.3%	10	22.2%
Using the Internet or apps is troublesome; there is too much information to keep up with	12	24.5%	6	13.3%
Other (free-text responses)	3	6.1%	2	4.4%

■ When shopping, respondents may sometimes be required to register with LII

Did they register for LINE in such cases?	n=606
Yes	151 24.9%
No	266 43.9%
I ask someone else to do it	16 2.6%
I have never been asked to register	171 28.2%
Other (free-text responses)	2 0.3%

Responded
"No" (266)

Reasons	Ages 60～69	Ages 70 and above	Total
Privacy concerns	84 49.7%	59 60.8%	143 53.8%
Do not know how to use LINE	42 24.9%	20 20.6%	62 23.3%
Prefer other means of communication	49 29.0%	30 30.9%	79 29.7%
Other (text responses)	6 3.6%	2 2.1%	8 3.0%

Key Findings

Privacy concerns are a major barrier to ICT adoption among older adults.

Need for further development of decentralized data applications, ensuring transparency, building trust, and giving users clear control over their data.

[Reference]

Hashida, Koichi. (2020). Maximizing Value through Decentralized Management of Personal Data. Measurement and Control, 59(9), 653-658.
Mobile Society Research Institute. (2023). "Mobile Society White Paper," NTT DOCOMO, Inc., https://www.moba-ken.jp/whitepaper/wp23/pdf/wp23_all.pdf, (Accessed 2023-12-01).

Elderly White Paper for the Reiwa Era 2 (2020). Cabinet Office, Government of Japan. https://www8.cao.go.jp/kourei/whitepaper/w-2020/zenbun/02pdf_index.html

Contact Information

Ikuko Tsumura, PhD, RIKEN Center for Advanced Intelligence Project (AIP)

Email: ikuko.tsumura@riken.jp