

# The Role of Technology in Supporting the Mental Health Needs of Aging Adults

Sara J Czaja PhD

Department of Geriatrics and Palliative Medicine

Center on Aging and Behavioral Research

Weill Cornell Medicine

Philip D. Harvey PhD

Department of Psychiatry and Behavioral Sciences

University of Miami Miller School of Medicine

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# Disclosures

- Sara J. Czaja and Philip D. Harvey are Scientific Officers of I-Function
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# How can Technology Help Meet the Mental Healthcare Challenges of Population Aging

- **Enhance:**

- Opportunities for engagement in new learning activities
  - Protective effect for cognition and mood
- Opportunities for social connectivity and engagement
  - Social connectivity is extremely important to mental and cognitive health
- Awareness of and Access to mental health care and services
  - Community resources
- Access to Digital Mental Health Interventions
  - Support aimed at protecting & promoting psychosocial well-being
- Opportunities for innovative assessment tools
  - Ecological Momentary Assessment: Activity patterns, mood state

# Older Adults and Technology

- Perceive IT as valuable and are willing to use it (e.g., Czaja et al., 2008, 2014, 2018, 2021).
- Are more likely to adopt technology if it is perceived as valuable and contributing to quality of life (e.g., Sharit et. al., 2018, Moxley et al., 2023).
- Can learn to use new technologies (Kelley et Charness, 2007; Czaja et Sharit., 2012, Czaja et al., 2018, Czaja et al., 2021, Harvey et al., 2021, Czaja, Harvey et al., *in prep*).
- Are less comfortable with IT and have less IT efficacy (e.g., Czaja et al., 2006; 2008, Lee et al., 2019).
- Adhere to self-paced, at-home technology-based intervention protocols (e.g., Harvey, Kallestrup & Czaja, *in prep*).
- There remains an age-related digit divide (Pew Research, 2022).

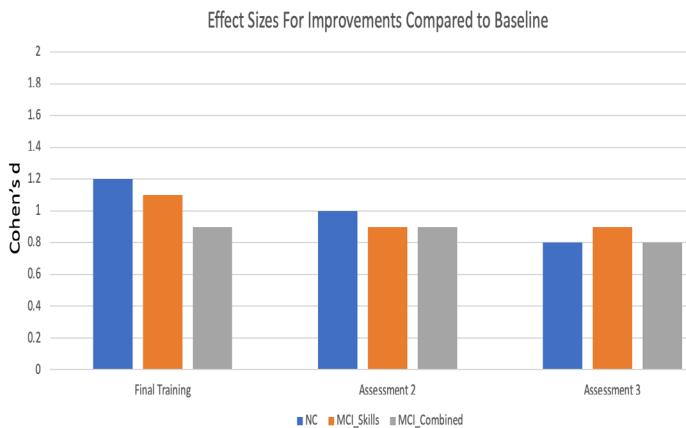
# **FUNSAT Training Program**

Four Modules and Six Functional Tasks

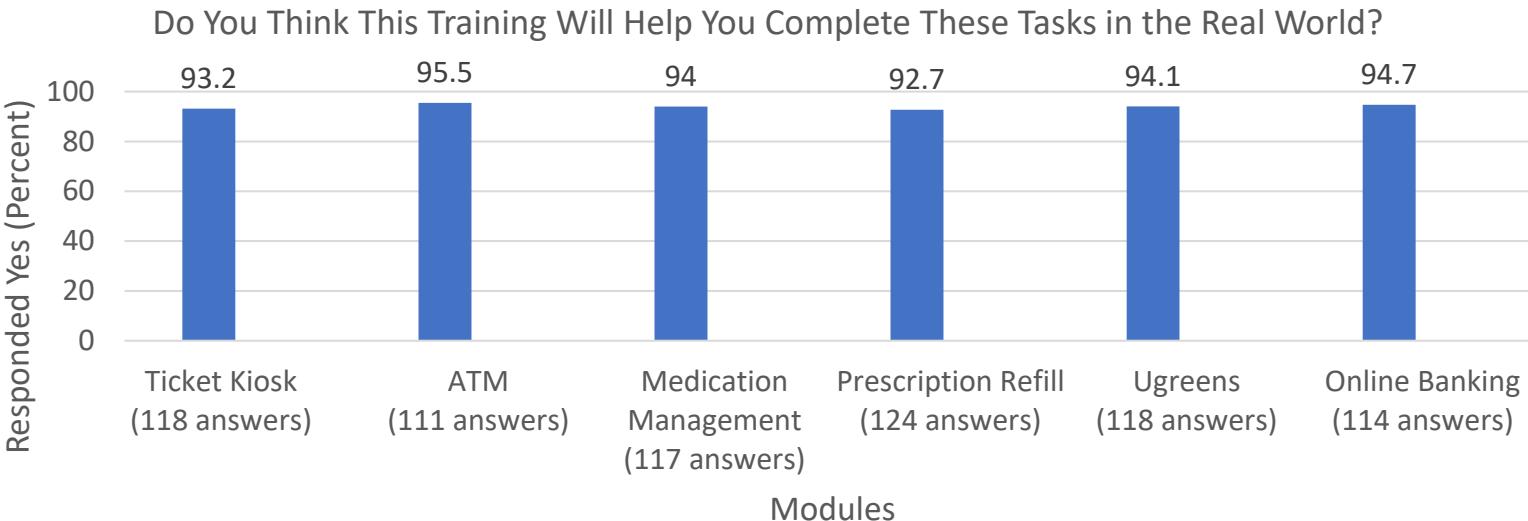
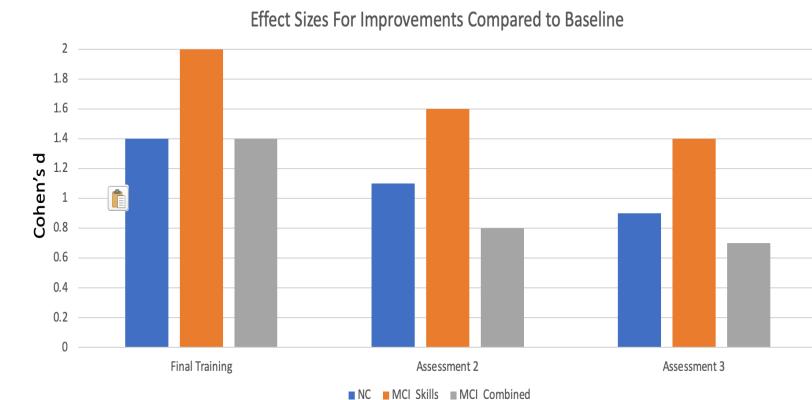
- **Ticket Kiosk**
  - Metro/Bus
- **Money Management**
  - ATM
  - Online Banking
- **Medication Management**
  - Medication Labels & Organizer
- **Online Shopping & Prescription Refill**
  - Prescription Refill
  - Ugreens



Training improvement: ATM Task



Training improvement: On-Line Banking Task



# Social Engagement

## Improving Social Support for Older Adults Through Technology: Findings From the PRISM Randomized Controlled Trial

Sara J Czaja, PhD, Walter R Boot, PhD, Neil Charness, PhD, Wendy A Rogers, PhD, Joseph Sharit, PhD Author Notes  
*The Gerontologist*, Volume 58, Issue 3, June 2018, Pages 467–477, <https://doi.org/10.1093/geront/gnw249>

### Findings :

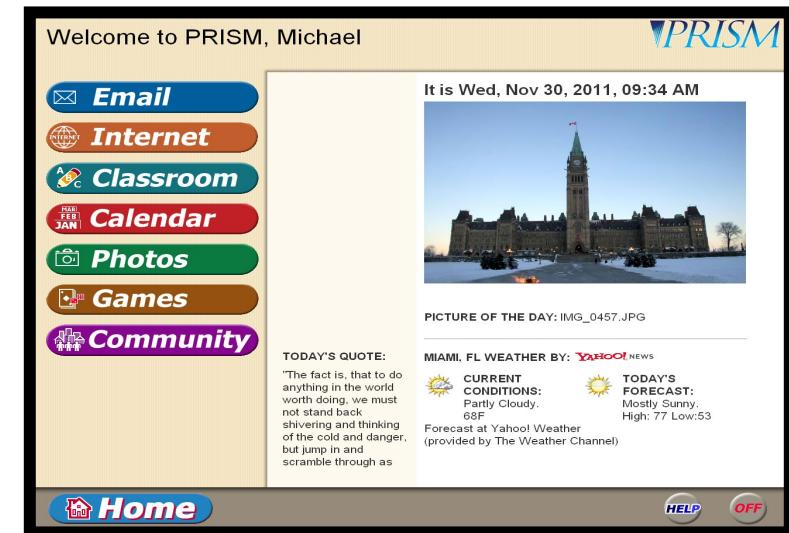
Successfully trained all participants on PRISM.

#### Significant Increase in:

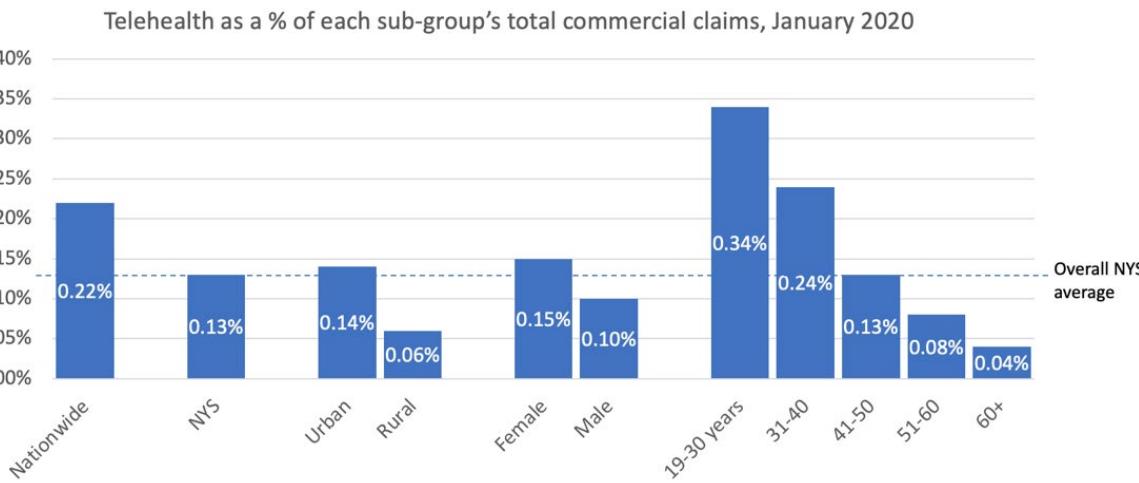
- Social Support
- Emotional well-being
- Computer Efficacy and Proficiency

#### Significant Decrease in:

- Loneliness

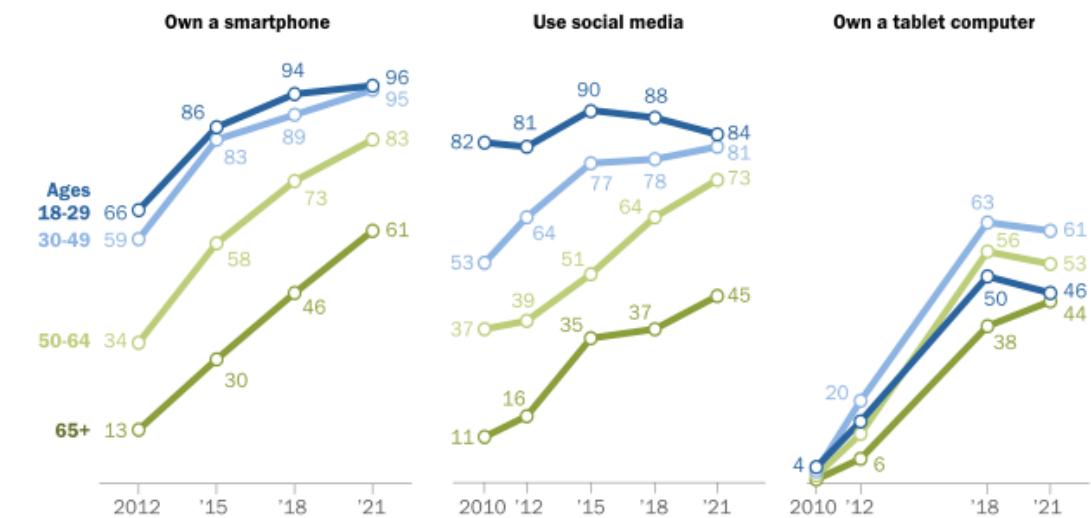


# Digital Divide



## Smartphone ownership and social media use among older adults continue to grow

% of U.S. adults who say they ...



Note: Respondents who did not give an answer are not shown.

Source: Survey of U.S. adults conducted Jan. 25-Feb. 8, 2021.

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# Adoption Extends beyond Hardware Access

## Policy Issues:

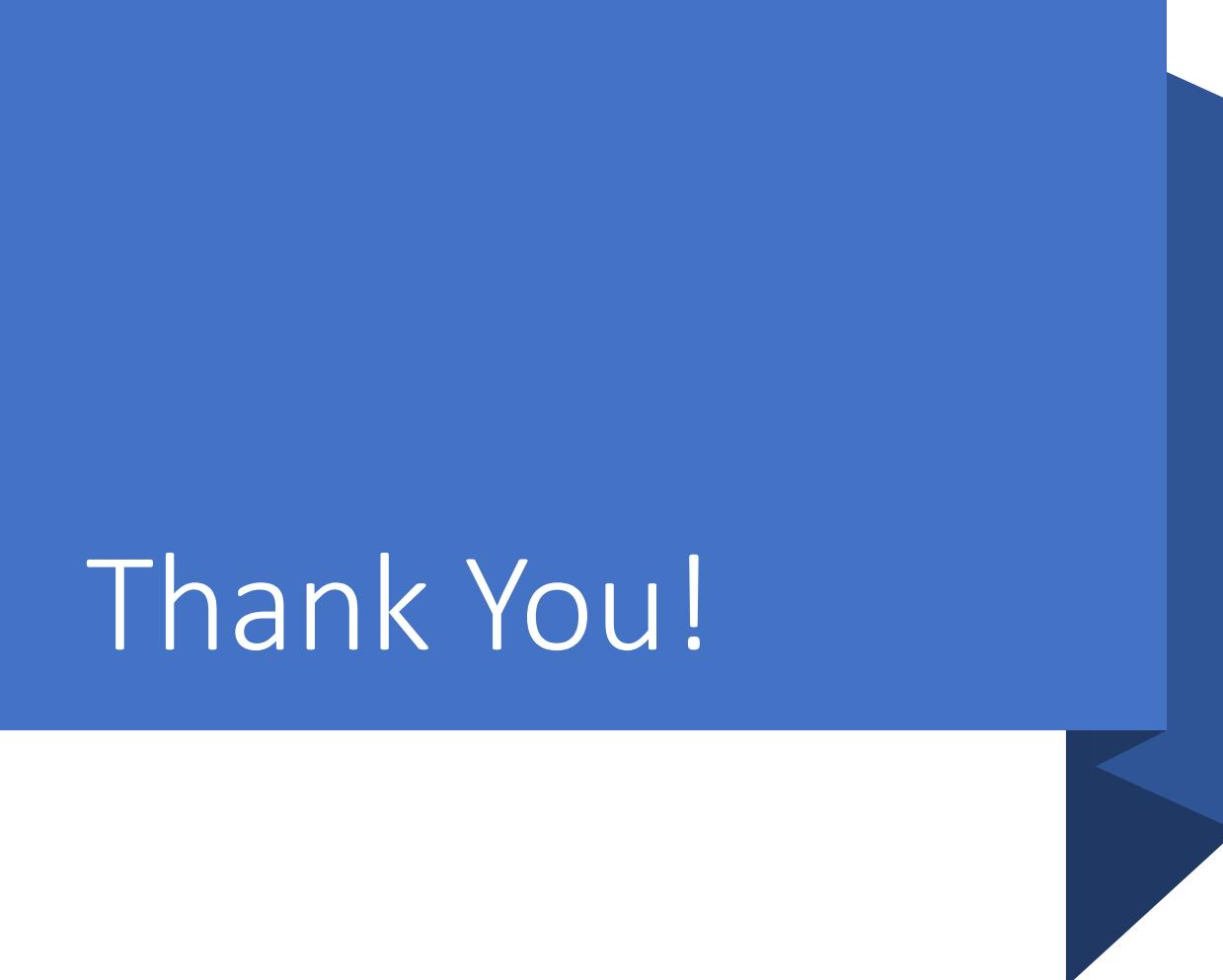
- Ensure equitable access to technology, training and technical support programs
- Cost and reimbursement issues
- Cyber Security & Information sharing

## Research Issue:

- Robust studies of effectiveness with diverse populations
- Identification of strategies for matching technology apps with needs of older adults and families
- Measurement and big data issues
- Strategies for implementation and sustainability
- Interface design Issues

## Design Issues

- Usability issues
- Integration across technology platforms
- Pushing the technology platform – e.g., engagement, sustainability



Thank You!