



Aging Technical Group Newsletter

Dear Aging TG Members,

As the current chair for the Aging TG, I want to wish you a Happy New Year! It was exciting to see more people at the annual meeting in 2022 and gives me energy for 2023. I noticed some features have gone back to “normal” and others have changed more permanently. I am sure many of us have seen these changes in different aspects of our life. I want you to think about the impact of the COVID-19 pandemic has on our aging population. What are *you* hearing, seeing, and studying related to changes in our communities and throughout the world? Here are some of my considerations and ideas. I hope we can discuss these topics and your ideas at the HFES meetings in 2023 and consider studying them in the upcoming years.

- How has the need for and applications of technology shifted for the aging population?
- Are we better prepared to handle isolation for our aging population while meeting care and social needs?
- How has mask-wearing impacted individuals experiencing age-related mild cognitive impairment, hearing loss, and dementia?
- Has a national shortage of nursing and clinical staff impacted our aging population in different care settings?

As we continue to experience changes in our world, HFES, and our research (either reverting back to normal or finding a new normal), I thank you for your dedication to research for to the aging population and your participation in the TG.

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Bethany Lowndes, PhD, MPH; Aging TG Chair
Assistant Professor; University of Nebraska Medical Center, Nebraska Medicine

Recap of Business Meeting at 2022 HFES Conference

Our virtual business meeting was a lot of fun! We convened for a quick meeting to elect the new officials, socialize over meeting, and brainstorm some ideas for our next gathering in Washington, D.C. Thank you to everyone who came. We hope to see you this year for the 2023 HFES Annual Meeting!

Current ATG Officers

TG Chair (Atlanta and Washington D.C.): Bethany Lowndes

Program Chair (Atlanta and Washington D.C.): Tara Diesbourg

Secretary/Treasurer (Atlanta) & Program Chair-Elect (Washington D.C.): Gaojian Huang

Newsletter Editor (Atlanta and Washington D.C.): Yue Luo

Web Master (Atlanta) & TG Chair-Elect (Washington D.C.): Boyi Hu

Arnold M. Small - Best Student Paper Award 2022

Susan Summerville, San Jose State University

Exploring the Use of Public Transportation Among Older Adults During COVID-19 Pandemic: A Pilot Study

Reminders and Upcoming Events

We earnestly request for speakers/workshops for HFES 2023:

- February 28, 2023: Proposal submission deadline for the 67th International Annual Meeting
- March 26-29, 2023: HFES International Symposium on Human Factors and Ergonomics in Healthcare
- October 23 - 27, 2023: HFES 67th Annual Meeting and Exhibition will be held at Washington D.C.

The Purdue Team EASI RIDER was recognized as the 1st place winner of the 2020 DOT Inclusive Design Challenge

In July 2022, a team that co-lead by Dr. Brandon Pitts, named EASI RIDER (Efficient, Accessible and Safe Interaction in a Real Integrated Design Environment for Riders with disabilities), was recognized as the 1st place winner of the 2020 U.S. Department of Transportation (DOT) Inclusive Design Challenge (IDC). The team developed a life-sized autonomous vehicle (AV) prototype and realistic demonstration that intends to enable people with physical and sensory impairments, as well as older adults, to independently and safely use next-generation Avs.



Aging Sessions at HFES Annual Meeting 2022

Session 1. Aging

Tuesday, October 11th, 10:30am - 12:00pm EDT

Lecture Session

- Older Workers' Perception of Exoskeletons and the Impacts on their Retirement Intentions
- A Structural Equation Model of Older Adults' Driving Exposure and Avoidance Using Objective Driving Records
- Exploring the Use of Public Transportation Among Older Adults During COVID-19 Pandemic: A Pilot Study
- Dealing with Problematic Asymmetries in Caregiving Relationships: A Role for Social Robots?
- Initial Steps to Assemble a Home Monitoring Kit Prototype for Parkinson's Disease: Applications of Design Heuristics and Formative Usability Testing with Young Participants
- Designing Feedback Visualizations for Anti-Hypertensive Medication Adherence for Older Adults

Session 2. Memory, Aging and Adjustment

Wednesday, October 12th, 1:30pm - 3:00pm EDT

Lecture Session

- Working Memory Load Impact on Effective Connectivity: a Dynamic Causal Modeling Study
- Putting the Brain in the Driver's Seat: Using Transcranial Doppler Sonography to Examine Vigilance in Automated Driving
- Repurposing design in bedrooms to improve home accessibility: task and motion analysis using the virtual reality environment
- Visual Search in Augmented Reality: Effect of Target Cue Type and Location
- Automating Everyday Activities: A Study on the Usage of Text-Based AutoCorrect among Age Groups

Session 3. Late-Breaking Results

Thursday, October 13th, 8:00am - 9:00am EDT

Late Breaking Results Session

- Insights on "neck up" impacts of low back exoskeletons for patient handling tasks: Shedding light on the brain
- Improving Robot-Assisted Care Using Participatory Design
- Exploring Transportation Challenges among Adults Aging with Long-Term Vision Impairment
- Co-Designing a Teacher Dashboard to Support Evidence-Based AI Instruction During Problem-Based Learning in Middle School Science