



# Bridging the Digital Divide for the Well-Being of Aging Populations in Smart and Connected Communities

# A Research Coordination Network (RCN) Symposium

Sponsored by a grant from the National Science Foundation's (NSF) Smart and Connected Communities (S&CC) Program (to Stony Brook University) and the ATLAS Center

# To be held virtually on October 29 and November 10, 2020

Registration and administrative questions can be sent to Ms. Michelle Douglas (mcdougla@umich.edu).

# October 29, 2020 (Presentations/Discussions)

Time (EDT)	Topic	Lead(s)/Presenter
1:00 - 1:05	Welcome	Dr. David Eby
1:05 – 1:15	Overview of Project and S&CC Framework for Aging Populations	Dr. Anil Yazici
1:15 - 1:30	Educating the Next Generation for Aging in Place	Dr. Jacqueline Mondros/Dr. Shelley Horwitz (alternative)
1:30 – 1:45	Smart Aging: Connecting Communities Using Low- Cost and Secure Sensing Technologies	Dr. Elinor Schoenfeld and Dr. Fan Ye
1:45 -2:05	Acceptance of Transportation Technologies by Aging Adults: If You Build it, Will They Buy it?	Dr. Neil Charness
2:05 - 2:25	The Future Came Faster From Mobility to Access.	Ms. Karen J. Alexander
2:25 - 2:45	The Rising Importance of Volunteer Ride Share Services for Older People	Ms. Katherine Freund
2:45 - 3:00	Break	All
3:00 - 3:15	Overview of S&CC for public Safety/Emergency services	Dr. Eren Ozguven
3:15 – 3:35	Assessing Transportation-Based Accessibility: Exploring the Case of Reaching Mental Health Services	Dr. Mark Horner
3:35 – 3:55	Intersecting at the Margins: Public Librarians' Roles in Serving Vulnerable Populations in Natural Disasters	Dr. Marcia Mardis and Dr. Faye Jones
3:55 – 4:25	Connecting Communities and Building Resilience to COVID-19 and Other Threats	Dr. Karl Kim
4:25 – 4:55	Open Discussion on S&CC questions <sup>1,2</sup>	Molnar, Eby, Yazici, Ozguven
4:55 – 5:00	Wrap up	Eby

# November 10, 2020 (Student Presentations: to be adjusted by the number of presentations)

Time (EST)	Topic	Lead(s)
1:00-1:05	Welcome	Eby
1:05-1:30	Presentation 1	TBA
1:30 - 1:50	Presentation 2	TBA
1:50 - 2:10	Presentation 3	TBA
2:10 - 2:30	Presentation 4	TBA
2:30-2:45	Break	TBA
2:45 - 3:00	Presentation 5	TBA
3:00-3:20	Presentation 6	TBA
3:20-3:40	Presentation 7	TBA
3:40 - 4:00	Wrap up	TBA

<sup>&</sup>lt;sup>1</sup>Transportation (Leads: David Eby, Lisa Molnar)

Questions for discussion:

- What are the barriers to developing and maintaining S&CC technologies for the aging population, and what are the challenges faced by older adults in using these technologies? What are the challenges and potential solutions for varying urban densities?
- What is the perception of the aging population towards emerging technologies such as autonomous vehicles? What are the strategies for technology adoption?
- What are the successful S&CC implementations of transportation in other countries? Are they transferable? If not, why?

# <sup>2</sup> <u>Public safety/emergency services</u> (Lead: Eren Erman Ozguven)

Questions for discussion:

- How do the emerging technologies, such as autonomous vehicles, affect the safety of aging population?
- What are the S&CC technologies for better accounting of the special needs of aging populations in emergency evacuation models?
- What is the role of smart city technologies in efficient humanitarian inventory models for special needs shelters?
- How would S&CC implementations for safety and emergency differ from place to place, particularly in between high and low density cities?
- What are the successful S&CC implementations in public safety/emergency services in other countries? Are they transferable? If not, why?

# **Presenter Bios**

# Dr. David Eby

Dr. David W. Eby is a research professor and head of the Behavioral Sciences Group at the University of Michigan Transportation Research Institute (UMTRI) and an adjunct research professor of Psychology at the University of Michigan. He is a former convener of the Transportation and Aging Interest Group of the Gerontological Society of America (GSA) and was awarded a fellow of the GSA in 2008. Dr. Eby is the founding director of two University Transportation Centers (UTCs) sponsored by the United States Department of Transportation. He is the lead author of two books on older adult mobility: *Maintaining Safe Mobility in an Aging Society* and Perspectives and *Strategies for Promoting Safe Transportation Among Older Adults*.

#### Dr. Lisa Molnar

Dr. Lisa J. Molnar is a Research Associate Professor in the Behavioral Sciences Group at the University of Michigan Transportation Research Institute and holds an adjunct appointment with the Department of Psychology. She also serves as Associate Director of the Center for Advancing Transportation Leadership and Safety. She has published over 200 journal articles, book chapters, proceedings papers, and technical reports focusing on traffic safety and driver behavior, and is a coauthor of two books on older adult mobility: *Maintaining Safe Mobility in an Aging Society* and Perspectives and *Strategies for Promoting Safe Transportation Among Older Adults*.

#### Dr. Anil Yazici

Anil Yazici is an assistant professor at Stony Brook University Civil Engineering Department, and the PI for the NSF RCN for Aging Population project. Besides smart cities and mobility of older adults, Dr. Yazici's research interests include transportation network modeling and resilience, emergency evacuation modeling and management, and intelligent transportation systems.

# **Dr. Jacqueline B. Mondros**

Dr. Jacqueline B. Mondros, D.S.W., currently serves as Dean of the School of Social Welfare and Assistant Vice President of Social Determinants of Health at Stony Brook University SUNY. Her current focus is to establish the School and University as a nationally recognized center on social determinants of health and success, with a particular emphasis on behavioral health and aging in place. She is past president of the National Deans and Directors of Social Work and codirector of the Leadership Academy for Deans and Directors of Social Work.

Dr. Mondros received her masters and doctorate from University of Pennsylvania. Her research interests are in the study of urban neighborhoods and she has written extensively on community social services, community development, and community organization. She is the recipient of numerous grant awards, most recently in the area of aging in place. She is currently working on a second edition of her co-authored text, <u>Organizing for Power and Empowerment</u>, an internationally recognized textbook in community organizing.

Before entering academia, Dr. Mondros had a successful career in social work practice. She was director of clinical services at a school for girls and executive director of a settlement house in Philadelphia. She has won numerous awards including the NASW Top Leader award for New York City. She has been appointed by three mayors to the New York City Age Friendly Commission and has served since 2014. She has remained a dedicated community activist, working to bring the resources of academia to effect change in local communities throughout the country.

#### Dr. Elinor Schoenfeld

Dr. Schoenfeld is Research Professor and Associate Vice Chair for Research in the Department of Family, Population and Preventive Medicine. Dr. Schoenfeld's research focuses on providing individuals with the knowledge and tools needed to make informed health care decisions, become active participants in their care, and sustain independence as they age. Her current multidisciplinary research is focused on technology supported aging in place, technology to monitor and support population and individual health in the age of COVID-19, and addressing the opioid epidemic using big data.

#### Dr. Fan Ye

Fan Ye is an Associate Professor in the ECE department of Stony Brook University. His research interests include mobile sensing systems and applications, Internet-of-Things, edge computing, and data-centric wireless communication. His work has received 12,000+ citations according to Google Scholar. He is a recipient of NSF CAREER award, Google Faculty Research Award, IBM Research Division Award, and multiple IBM Invention Achievement Plateau awards. His current focus is developing novel sensing and analytics platforms for aging in place and personalized precision healthcare.

#### **Dr. Neil Charness**

Neil Charness is <u>William G. Chase Professor of Psychology</u> and Director of the <u>Institute for Successful Longevity</u> at Florida State University. He received his BA from McGill University (1969) and MSc and PhD from Carnegie Mellon University (1971, 1974) in Psychology. Neil's research focuses on human factors approaches to age and technology use including transportation technologies. He has published over 200 journal articles, book chapters, proceedings papers, and technical reports, and also co-authored books on *Designing Telehealth for an Aging Population: A Human Factors Perspective*, and *Designing for older adults: Principles and creative human factors approaches (3rd Edition)*.

### Ms. Karen J. Alexander

Karen J. Alexander has 20+ years of experience planning and implementing human service, public transit, and aging in place programs. In 2013, she joined the Voorhees Transportation Center as a Senior Research Project Manager, directing the New Jersey Travel Independence Program, *NJTIP* @ *Rutgers*. NJTIP provides mobility training to 1,000+ older adults and people with disabilities annually. She is Co-Principal Investigator for "Understanding the Mobility Needs for an Aging New Jersey Population," a current study for NJ Department of Transportation, an instructor for the National Transit Institute, and led the 2017 Coordinated Human Services Transportation Plan update for the North Jersey Transportation Planning Authority. She received her Bachelor of Arts in Communications from UCLA, a Master of Public Administration (MPA) degree from Columbia University, and a Post-Graduate Certificate in Aging from Hunter College, CUNY.

#### Ms. Katherine Freund

Katherine Freund is the founder and President of Independent Transportation Network of America. Katherine has a Master of Arts degree in Public Policy from the Edmund S. Muskie School of Public Service and a Bachelor of Arts degree in English Literature from the State University of New York at Buffalo. She Chaired the Task Force to Study the Safe Mobility of Maine's Aging Population, served on the Advisory Committee for the 2005 White House Conference on Aging and as a National Transit Institute Fellow. She served for twelve years on the Transportation Research Board's Committee on the Safe Mobility of Seniors where she Co-chaired the Joint Subcommittee on Transportation Options for Seniors. In 2013, Katherine testified about ITN*America* and sustainable senior transportation before the US Senate Special Committee on Aging. In her home state of Maine, she serves on the Maine Department of Transportation Public Transit Advisory Council.

## Dr. Eren Erman Ozguven

Eren Erman Ozguven is an Associate Professor of Civil and Environmental Engineering, and the director of the Center for Resilient Infrastructure and Disaster Response (RIDER) at the FAMU–FSU School of Engineering. His research interests include infrastructure resilience, disaster planning, emergency transportation operations, urban mobility, transportation accessibility and safety, simulation and modeling of transportation networks, transportation demand modeling and intelligent transportation systems. Dr. Ozguven received externally funded projects from National Science Foundation. Florida Department of Transportation, U.S. Department of Transportation, MetroPlan, and Institute for Museums and Library Services. Dr. Ozguven has also published more than 90 journal papers and 100 conference proceedings/presentations with a focus on spatial optimization, transportation accessibility, safety and mobility.

#### Dr. Mark Horner

Mark W. Horner is Associate Dean for Research in the College of Social Sciences and Public Policy at FSU and faculty in the Department of Geography. His research focuses on accessibility in transportation, with an emphasis on measuring and modeling people's ability to reach life-sustaining goods and services, particularly in health and emergency management contexts. He has published over 100 peer reviewed journal articles, book chapters, and conference proceedings, and currently serves as a North American editor for the journal Transportation (Springer).

### Dr. Marcia A. Mardis

Marcia A. Mardis is a professor of information science and the Associate Dean for Research at FSU's College of Communication & Information. Her research focuses on community and institutional resiliency, especially as it affects professional identity formation.

# Dr. Faye R. Jones

Faye R. Jones is a Senior Research Associate at Florida State University's College of Communication and Information. Her research interests include STEM student outcomes, the exploration of student pathways through institutional research, and disaster resilience in communities.

#### Dr. Karl Kim

Karl Kim, PhD is Professor of Urban Regional Planning at the University of Hawaii, where he also directs the National Disaster Preparedness Training Center (<a href="mailto:ndptc.hawaii.edu">ndptc.hawaii.edu</a>). Dr. Kim is also Editor-in-chief of TRIP (Transportation Research: Interdisciplinary Perspectives) and author of many publications on transportation, resilience, and risk management.