



Department of  
Information Science Technology  
Cullen College of Engineering



### IST Seminar Series Presents:

## A digital inclusion quandary: Why tech ownership does not imply tech use in older adults and what we can do about it

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**Wednesday, May 29<sup>th</sup>, 2024 from 1:00PM-2:00PM (Central Time)**

**Location: MS Teams (see link below)**

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_YTNhN2YwNmYtYTY0Ni00ZWFKLWJiNzMtNDIxYTU3OWZhZTY4%40thread.v2/0?context=%7b%22tid%22%3a%22170bbabd-a2f0-4c90-ad4b-0e8f0f0c4259%22%2c%22oid%22%3a%22c9f8dd10-bdbf-4c7a-bc65-d4bc72037cbe%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_YTNhN2YwNmYtYTY0Ni00ZWFKLWJiNzMtNDIxYTU3OWZhZTY4%40thread.v2/0?context=%7b%22tid%22%3a%22170bbabd-a2f0-4c90-ad4b-0e8f0f0c4259%22%2c%22oid%22%3a%22c9f8dd10-bdbf-4c7a-bc65-d4bc72037cbe%22%7d)

**Abstract:** Effectively using online applications and services is becoming essential to fully participate in our society, democracy, and economy. But that has put many older adults at a significant disadvantage. Although tech ownership among older adults has increased significantly over the past half-decade, most of them use few digital services, such as internet browsing and texting. In this talk, I will discuss some of the barriers that older adults face in using mobile apps and services, such as locating a particular feature, accessing and using preferred sources of tech support, and effectively communicating the tech issues they encounter. We will learn how some of these challenges stem from cognitive aging, such as a decline in fluid intelligence, and how the tech support needs of older adults can stress their social relationships. Finally, I will introduce our approach to addressing these barriers — augmenting technology with “age-friendly” features — instead of segregating the technology used by older adults from that used by younger people. For example, I will present Nav Nudge, an interaction technique that uses voice input and large language models to assist older adults in feature selection on mobile user interfaces.

**Biosketch:** Debaleena Chattopadhyay is an Assistant Professor in the Department of Computer Science at the University of Illinois Chicago. She obtained her Ph.D. in human-computer interaction from Indiana University and her MS in computer science from Stony Brook University. Dr. Chattopadhyay is studying how to enable continual digital inclusion of older adults. Previously, she designed user-centered tools for collocated collaboration in multi-device ecosystems, drawing on complementary affordances of device ecology. She also contributed to the cognitive science of uncanny valley in virtual human design. Her research has received funding from the National Science Foundation, the National Institute of Health, the National Institute of Aging, and the Department of Health and Human Services.