



**Dissertation Proposal Defense**  
***Doctor of Philosophy in Library and Information Science***

**“From Data to Action: Toward a Framework for Collective Personal Informatics in Dementia Care” by Ning Zou**

**Date:** January 20, 2022

**Time:** 2:30PM – 4:30PM

**Place:** [https://pitt.co1.qualtrics.com/jfe/form/SV\\_0ksk8HZJ8KI3FXM](https://pitt.co1.qualtrics.com/jfe/form/SV_0ksk8HZJ8KI3FXM)

**Committee:**

- Bo Xie, Professor, School of Nursing, School of Information, University of Texas at Austin
- Eleanor Mattern, Teaching Assistant Professor, Department of Information Culture & Data Stewardship, School of Computing and Information, University of Pittsburgh
- Jacob Biehl, Associate Professor, Department of Information Culture & Data Stewardship, Department of Computer Science, School of Computing and Information, University of Pittsburgh
- Daqing He, Professor, Department of Informatics & Networked System, School of Computing and Information, University of Pittsburgh

**Abstract:**

Tracking for health is becoming prevalent. Individuals now have increased access to and use of smartphones and consumer-facing wearable devices for the purpose of tracking and collecting various personal data to elicit sensations and understandings about their overall health or self-management of chronic conditions. These self-tracking technologies can be seen as personal informatics systems. Although self-tracking and personal data have typically been seen as individual-driven, they are increasingly being integrated into people’s daily lives, influencing and being influenced by the embedded social context, influence and are influenced by the embedded social context, impacting and being impacted by many other people beyond the individual. This is particularly true when self-tracking and personal data are used in the context of dementia care, given that caring as an interpersonal and collaborative process in which people with dementia and their care partners continuously balance and negotiate their needs. However, prior research indicates that collaborative use of personal informatics systems for chronic illness self-management is far from successful; people often encounter difficulties in understanding tracked personal data; and data viewed alone can transform and take on an entirely new meaning when viewed in a collaborative setting involving diverse roles. In my dissertation work, I intend to conduct a mixed-method empirical investigation into tracking practices in the context of dementia care, a collaborative, data-intensive, and complex chronic illness self-management practice that has received little attention to date. Motivated by existing data challenges, limited personal informatics systems to support collaborative tracking, my dissertation work employs a collaborative information behaviors lens to empirically examine users’ data needs and data behaviors associated with the use of personal informatics systems. This dissertation will contribute to the fields of human information behavior and human-computer interaction by developing an integrated collaborative data behavior framework for collective personal informatics and by providing guidance and support to technology developers and tracking practitioners.