

SIGACCESS Member Profile

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Member of SIGACCESS since: 2001

Member of ACM since: 2000

Also member of: SIGCHI

1. Please describe your current research project(s):

My thesis work focuses on understanding how to design cognitive supports for families. Families have a great deal of information to remember and share to keep their households running smoothly. As home life gets busier, it becomes increasingly difficult to manage all this information.

I explored current practices of information sharing and how families remember through a mixed-method qualitative study with four families in their homes. I collected many grounded examples of the participants' approaches to remembering a range of household information. These examples show us a number of successful memory strategies and a few areas of challenge for our participant families.

I have also explored the design space through proof of concept demonstrations of the AudioNotes system in Georgia Tech's Aware Home. When a family member is busy, this system would allow them to quickly offload reminders to themselves or messages to a spouse or child through a voice activated audio recording. The message can later be accessed through audio portals throughout the house. These portals may take various forms like touch displays or a toy with embedded speakers. This allows family members to adopt the system in a way that fits their lifestyle and attempts to involve the children in the use of the system by embedding the system into more playful forms. Although reducing memory failures and increasing efficiency are important in any cognitive support, I feel it is equally important to make the design socially and aesthetically balanced.

2. What is your professional background?

I am a Ph.D. student working with Dr. Elizabeth D. Mynatt in the Georgia Institute of Technology's College of Computing. I am a member of the GVU Center, Aware Home Research Initiative and the Everyday Computing Lab. I completed my M.S. in Human-Computer Interaction from the Georgia Institute of Technology in 2001 and my B.S. in Computer Science from Tufts University in 1998. Prior to entering graduate school, I

worked full time as a Software Engineer in a user interface group at NewsEdge Corporation in Burlington, Massachusetts.

3. Please describe any past projects on which you have worked:

As part of a summer internship with Vicki Hanson in IBM T. J. Watson's Accessibility Research group, I worked on a project with Shari Trewin and Simeon Keates exploring the current use of pointing devices in order to create better accessibility utilities. We conducted a study with participants from a range of ages and motor abilities including individuals with Parkinson's Disease and older adults. Participants completed computer sessions that automatically logged movement data as they clicked on targets. In between computer sessions, semi-structured interviews with participants explored their computer and mouse use. In addition to the detailed mouse movement data, this study provided a set of difficulties and strategies that were reported by participants from all groups, not just the older adults or people with motor impairments.

In research that began as my Master's degree project, I explored the potential of computational support to help survivors of traumatic brain injury regain some of their independence lost due to their resulting cognitive impairments. Using a case-study approach, I explored the needs and informed the design of a pacing aid for an individual with a cognitive impairment whose quality of life was negatively affected by her inability to pace herself during her morning routine.

4. Have you participated in any SIGACCESS-sponsored event?

- Presented a paper on "Designing a cognitive aid for the home: A case-study approach" in 2004 at ASSETS.
- Student volunteer at ASSETS in 2000.