

Keynote Speech 3:

Pervasive Computing for Successful Aging

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Abstract

The cost of home health services for older persons with disabilities is increasing with the rapidly growing elder population worldwide. One in ten elders in the US suffers from Alzheimer's disease (AD). In 2002 AD resulted in health related expenditures of more than \$61B. It is estimated that 1 in 5 elders will have AD by 2050. Quality of life and independence are impacted by disabilities, and our health and caregiver systems will be increasingly stressed as the numbers increase. Hence, there is a significant need today to innovate cost-effective ways to help elders maintain their independence, and at the same time, reduce caregiver burden. The impressive wireless and portable technologies we have today, and the emerging mobile computing paradigm offer a unique and real opportunity for us to innovate pervasive applications and environments especially designed to support the elderly. In this talk, I will present our work on assistive pervasive environments especially designed to promote elder independence and quality of life. I will describe the Matilda Smart House project and discuss its architecture and a sample of its applications.