Chapter 44
Communication Technologies for Older Adults in Retirement Communities

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ABSTRACT

This chapter presents the research, development, and findings of a communication technology developed to enable older adults living in retirement communities to share public events. The project draws reference from the fields of industrial design, universal design, and computer science to design a technology for residents at a retirement community. Residents were included in the design process by evaluating designed technologies. This study demonstrates the relevance of designing simple yet innovative technologies that meet the needs of older adults.

INTRODUCTION

With technological capabilities shifting towards smart, connected, and multifunctional products, event-sharing systems are now built directly into products that we use everyday like mobile devices and personal computers (Lohr, 2012; Moore, 1965). While most people are familiar with this type of technology, the older adult population is less likely to have such experience. Furthermore, such lack of access may prevent older adults from successfully participating in events.

Retirement communities offer a unique setting for older adults to become part of a community. Through the communities, older adults have access to a number of events such as social, physical, and...
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educational activities to mention a few (Calvin, 2012). To date, aging Americans spend 27% of their time in leisure activities, in which approximately half of that time is spent watching TV and 10% socializing (Federal Interagency Forum on Aging-Related Statistics, Older Americans, 2012). Socializing is a necessary step towards avoiding depression. Lack of interaction and social support has been found to not only negatively affect the quality of life but also have negative effects on health, leading to a higher mortality rate amongst older adults (Blazer, 1982; Golden et al., 2009). Even though retirement communities afford social exposure, isolation and depression are still present.

A number of studies exist on the effects of socializing in older adults populations (Fokkema & Knipscheer, 2007; Hirsch, et al., 2000). Studies show that older adults who participate in social and group activities are healthier and happier (Fokkema & Knipscheer, 2007; Hirsch, et al., 2000). Carr reports that residents in retirement communities are likely to want more choices for lifestyle enhancements and socializing opportunities (Carr, 2010). Furthermore, Nehmer et al. propose that older adults can benefit from technologies that increase participation in social life. (Nehmer, Lindenberger & Steinhagen-Thiessen, 2010). This has led to several studies that attempt to address these issues by looking at the development of products to better enable socialization of older adults (Apted, Kay & Quigley, 2006; Iglesias, Segura & Iturburu, 2009). Descheneux et al. and Fudickar et al. both illustrate appointment management tools that address the special demands of elderly and cognitively impaired patients (Descheneaux & Pigot, 2009; Fudickar, Faerber & Schnor, 2011). Iglesias et al. presented a system, which allows users to manage their personal agendas without the use of a keyboard (Iglesias, Segura & Iturburu, 2009). This design is particularly useful for those adults suffering from movement impairment.

Following this line of work, the purpose of this project is to develop a communication technology that enables older adults to be informed about on-going events. More specifically, the goal is to develop an Event Planner (EP) that is a user-driven technology that is capable of handling event information while maintaining a simple and intuitive interface. The significance of this project is to design implementable technologies for retirement community’s facilities. Moreover, the goal is to impact these communities by reducing social isolation and improve the quality of life of aging older adults.

PROJECT OVERVIEW

This project seeks to design a user-driven EP that would allow older adults at communities to easily share events. Instead of having specialized staff deciding, setting-up, and advertising on-going events, residents can share events in the community through the use of the communication technology. The communication technology could be used both by members of the community and newcomers planning for special one-time events.

Central to this project is the design of intuitive and simple technologies. In addition, the design must be a technologically simple implementation. As such, this project made use of a sympathetic design framework tailored to the design of communication technologies for older adults. The framework is based on the following criteria: 1- product functionality, 2- product physical interface, 3- older adults co-design, 4- universal design principles implementation; 5- product experience; and 6- off-the-shelf technology use.

First, functionality of the products should be simple to use by addressing simple and specific older adults’ needs. Second, product interfaces should use physical hardware for interaction, which is an exercise in tangible computing. Physical, tangible computing can afford more accessible interfaces for older adults.

Older adults should be involved as experts in the product design process. There are a number of
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