

Technology use

G. MOUNTAIN (Convener). *Lessons from the UK arm of the UK/Canada dementia technology collaboration: Promoting the use of technologies by people with dementia. Gerontechnology 2010;9(2):145*; doi:10.4017/gt.2010.09.02.088.00 **Participants:**

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ISSUE An increasing number of technologies are available to assist with managing the symptoms of dementia, with the focus often being assisting the family carer. However, the wider potential of technology in improving quality of life for people with dementia is yet to be exploited. The four projects which form this symposium have all taken place in the UK and involved people with dementia and their carers in different settings including domestic housing and residential care. They demonstrate the use of a range of different technological applications, from specialist devices to technologies that are used in everyday life. They illustrate some of the challenges for the dementia workforce if the use of technology is to be promoted. **STRUCTURE** Each presenter will provide a summary of research they have been engaged in with people with dementia and identify the emergent issues from their work for implementation. The symposium convener, Gail Mountain, will then lead a discussion about the use of technologies for people with dementia including the promotion of digital inclusion. **CONCLUSION** Identification of the issues for different stakeholders including researchers, industry, health and social care practice and people with dementia and their family carers. Also, identification of the actions that need to occur to ensure that people with dementia are able to benefit fully from technological innovation.

Keywords: dementia, technologies, digital inclusion

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M.S. PARSONS, A.J. ASTELL. *Introducing novel technology into care homes for older people with dementia. Gerontechnology 2010;9(2):145-146*; doi:10.4017/gt.2010.09.02.089.00 **Purpose**

Examining factors that promote or inhibit the usage of novel technology in care homes for people with dementia. **Method** CIRCA (Computer Interactive Reminiscence and Conversation Aid)¹ is a multi media, touch screen computer system, designed to stimulate conversations between people with dementia and caregivers. The process of introducing CIRCA into routine care was examined in two specialist care homes for older people with dementia in England over a three-month period. Following training, 20 staff were asked to incorporate CIRCA into their daily routine with residents with dementia. Information about each session using CIRCA was collected including date, participants' names, duration, and residents' responses. At the end of the study, a number of CIRCA sessions were filmed and semi-structured interviews were conducted with 14 staff. The videos and interviews were analysed to identify factors that 'promoted' and 'limited' the incorporation of CIRCA into routine care practice. **Results & Discussion** Staff identified a number of positive benefits of using CIRCA for their residents and considered its usage improved the quantity and quality of staff-resident interaction. Promoting factors, i.e. factors that helped staff incorporate CIRCA into residents' daily care included: positive impact on residents; learning more about residents' life history; confidence in running reminiscence sessions; and support from manager. A number of barriers to using CIRCA in routine care practice were also identified, including: time pressure; task-centred culture; low confidence; language limitations and cultural differences between staff and residents. Cultural gaps were apparent in terms of the reminiscence aspect of CIRCA, where gaps in staff knowledge about 20th Century UK history were identified. The other barriers can be seen as applying not just to CIRCA or the introduction of novel technology but the wider issues of changing care practice in homes for people with dementia. Lack of time, due to poor staff to resident ratios, occurs in many settings, but more often is a common excuse and part of resistance to

change. Similarly, the dominance of a task-centred culture, highlighted in this study, is reinforced by the negative attitudes of some staff, exemplified by the belief that sitting with a resident using CIRCA is not 'real work'. Lack of confidence and limited communication skills undermine many staff-resident interactions; whilst staff knowledge and understanding of dementia about the causes of agitation, may lead them to avoid or ignore some residents who they perceive as 'difficult' or unable to concentrate. The findings suggest that changing attitudes and practice in dementia care is an essential co-requisite for introducing novel technology.

References

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Keywords: care homes, technology, staff training, care practice, dementia

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A.J. ASTELL, R.D. ORPWOOD. *Prompting to support independence in dementia. Gerontechnology* 2010;9(2):146; doi:10.4017/gt.2010.09.02.090.00 **Purpose** Explore the possibilities for creatively applying technology, to meet the needs of people diagnosed with dementia in carrying out activities of daily living. The project is attempting to involve people with a dementia diagnosis at all stages of the design and development process¹ by using a range of methods to gather information from people with dementia in their own homes. The project builds on previous work exploring the potential to creatively apply technology to support people with dementia to continue participating as equal partners in social interactions and to retain autonomy and independence². **Method** Five people with a dementia diagnosis and their family caregivers were recruited to participate. Each couple was interviewed and asked to keep a record of activities of daily living over a two-week period. Participants were also asked to complete standardised measures of stress and coping. At the end of two weeks, the participants were re-interviewed and asked to identify one priority activity that they would like assistance with. Each participant was video-recorded carrying out the target activity, to permit examination of the steps involved in the task and identification of the specific difficulties participants were encountering in carrying these out. The aim was to use these data to create technological solutions to support people with dementia to be able to continue to carry out the target activities. **Results & Discussion** Five case studies were collected that highlight a range of self-identified priorities for people with a diagnosis of dementia living at home. The target activities include remembering to take medication, using the television remote control, doing the laundry and preparing a meal. The focus of the presentation will be on the utility of naturalistic methods to explore the needs of people with dementia in their own home environments. The results suggest that working with people in their own homes permits a close exploration of the difficulties they experience on a day to day basis and highlights the potential for tailoring interventions to meet these needs. The study also revealed valuable insights into collecting data in people's own homes, the utility of standardised measures, the acceptability of diary methods and the challenges of developing technological solutions to address the identified needs. The implications of these findings for future developments to support people with a dementia diagnosis in their own homes will be discussed.

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Keywords: dementia, independence, activities of daily living

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T. ADLAM, B. CAREY-SMITH, N. EVANS, N. HARRIS. *Implementing smart home technology for people with dementia in the community. Gerontechnology* 2010;9(2):146-147;

doi:10.4017/gt.2010.09.02.091.00 **Purpose** Integrating smart homes for people with dementia into existing care structures requires coordination of health and social care agencies, as well as

those directly associated with the technology. Assessing a person for appropriate technology interventions, providing ongoing user technology support and assessment and adapting the installation to a person with dementia's changing needs are all activities that are not carried out in a typical dementia care context. **Method** A system was installed to explore the effective implementation of smart house technology in a real context¹. The project is a collaborative effort between a housing association, social services, primary care trust, and a technology provider. The tenants and their families are closely involved. An initial care plan was based on assessment by a GP and a social worker or occupational therapist, as well as the preferences of the tenant and family. An initial four week 'sensor only' (except for a lighting intervention) baseline period was used to determine the initial configuration of the technological interventions. Support was provided to users of the system who are the tenant, family and care staff. Detailed training and information was provided when needed and technical problems were resolved quickly. **Results & Discussion** Dementia progresses and people's needs change. To accommodate these changes, the interventions made by the system could be reconfigured as the needs of the tenant, care staff and family changed. It is important that technology can adapt to changing care needs. Analysed monitoring data was sent to the care team by the engineers. This data influenced revisions to the tenant's care plan. Subsequent requests for system configuration changes were passed to the engineering team for implementation. The staff found it difficult to form requests for configuration changes, often requiring discussion with the engineers. This is thought to be because of their relative lack of awareness of the capability of the system. The next step in system development is to make configuration possible by non-technical staff. There were also difficulties reconciling the differing requirements of the tenant and the professional and informal caregivers. Ultimate responsibility for defining the care plan rested with the care manager. Successful implementation of technology in care requires some initial adaptation of care commissioning and provision because of the cross-agency and cross-disciplinary nature of technological interventions. High level interagency communication is essential to maintain continuity of care.

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Keywords: dementia, smart home, primary care, social services, assessment

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C.L.CRAIG. Every picture tells a story: Making sense of life in care through photography. Gerontechnology 2010;9(2):147-148; doi:10.4017/gt.2010.09.02.091.00 **Purpose** In 2007 it was

estimated that within the UK approximately 486,000 older people were living in care home settings¹. Whilst this represents a significant number, we know less about the experiences of these individuals than those of community-living older people. This is in part because the population is generally much frailer and in part a result of some of the methodological challenges of capturing their voices. There has been a growing recognition that many established qualitative techniques which rely completely on the ability of the individual to verbally articulate their experiences and views are not appropriate to elicit the views of vulnerable and marginalised groups. Consequently, there has been a shift to explore innovative research methods including those utilising arts-based media and photography². This study represents the first phase in a much larger piece of work which seeks to explore whether photography, and more specifically digital photography, offers a valuable tool in eliciting the experiences of individuals living within a care home environment. In undertaking this work it is envisaged that new insights will be offered in relation to the lived experience of life in care and an understanding will be gained in relation to the practices and principles of image making as a technique for the beneficial engagement of older people. There is potential to develop a methodology and methods of social care enquiries that engage participants in creative practices as vehicles for developing insight. **Method** This paper presents the findings of a small study undertaken in a residential care home in the UK. The researcher employed participatory photographic research methods where older people living in the home were given digital cameras and invited to take images that in some way captured aspects of their daily live experiences. The images

then formed the basis of interviews using the technique of photo-elicitation. **Results & Discussion** Older people engaged with digital technologies. However, rather than simply using the camera as a means to record the images, the photographic process also became a 'bargaining tool' and a mechanism through which they could be heard. Carers found it to be an incredibly powerful tool in articulating their own experiences. There were tensions in terms of taking photographs around themes of visibility and invisibility, and challenges in terms of some of the design issues in relation to the photographic equipment. Ethical issues were explored with residents in relation to the photographic process.

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Key words: photography, research methods, digital technologies

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