

# Workshop on Reminiscence Systems

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## ABSTRACT

The Reminiscence Systems Workshop (RSW-2009) seeks to explore the broad technical and social challenges involved in research solutions in the areas of systems that support reminiscing for older people. The focus of the workshop is on interface technologies and information & communication technologies that promote reminiscing, exploring the types of interfaces and systems that are likely to evolve from current computing approaches as well as from disruptive technologies.

## Categories and Subject Descriptors

H.1.2 [User/Machine Systems]: *Human factors, Human information processing, Software psychology.*

H.5.2 [User Interfaces]: *Evaluation/methodology, Graphical user interfaces (GUI), Input devices and strategies (e.g., mouse, touchscreen), Interaction styles (e.g., commands, menus, forms, direct manipulation), User interface management systems (UIMS).*

## General Terms

Design, Human Factors

## Keywords

Reminiscence systems, Reminiscence therapy, Inclusive interfaces.

## 1. INTRODUCTION

In Europe by 2050, it is estimated that one-third of Europe's population will be over 60. The number of 'oldest old' aged 80+ is expected to grow by 180% [5]. For example, in 1951, there were 300 people aged 100 and over in the UK. By the year 2031, it is estimated that this figure could boom to 36,000 [2]. Life expectancy has been rising on average by 2.5 years per decade in Europe. This growing number of people with significant leisure time available, often socially isolated, who will live for longer, may benefit from the therapeutic stimulus offered by reminiscing activities, either individually or offered via networked services.

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## 2. THE CONTEXT FOR REMINISCING

It is well known how much we all enjoy reminiscing, recalling significant cultural issues, events, old friendships or indeed places that resonate with us because they are inextricably intertwined with our life experience. Recalling these artefacts of time often takes us back to the milieu, and we relive the experience, often with a frisson of excitement, as our senses are flooded with the rich sensory information accreted to it. As we age, we gather a large number of life experiences, many of them signifying important life stages, for example, as our family grows, as we impact on the world, and as the world impacts on us. An old photo, of sentimental value, can mean everything to a person, becoming imbued with tremendous significance and often-talismanic importance. These artefacts, whether a location, person or event, or indeed a photo of such an artefact, become the stuff of reminiscing, fuelling what is viewed as a therapeutic process, that, when managed, offers benefits [7][9], but can reinforce feelings of isolation and depression when unmanaged.

As people age, they accrue more life experiences, but they also increasingly face old age alone, especially in developed economies, as the demography of the post-war (1939-45) period impact on societies today. The 'baby boomers' of the post-war period are now of retirement age, and this increase in numbers of older people is putting increasing strain on social and health services. It is projected that within the next fifteen years, over 70% of UK households will comprise of people living alone, where a majority will be elderly people. This large body of people, each of who may 'own' many sets of shared experiences, has no real facility to share these and to enjoy the therapeutic benefit arising from sharing.

Reminiscing includes a range of activities and traditional tools aimed at stimulating thoughts, feelings and memories of times gone by. For example, these could be recalling significant cultural issues, events, old friendships or places. Reminiscing can help elderly people to improve health and wellbeing. The impact of reminiscing therapy as an intervention has been demonstrated for a range of populations, such as people with dementia.

## 3. REMINISCING RESEARCH

Reminiscing includes activities and the use of traditional prompts aimed at stimulating feelings and memories; e.g., the use of multi-sensory triggers to stimulate recall [6]. The majority of research in reminiscence systems has been carried out to assist people with dementia and related illnesses [1][10]. The impact of reminiscing therapy as an intervention has been examined; e.g., Wang [11] demonstrated how it was valuable and beneficial to people with dementia although Woods et al. [12] found inconclusive evidence

of the efficacy of reminiscence therapy for dementia in a Cochrane Review. However, it has been shown that reminiscence in general, but especially life review, are potentially effective methods for the enhancement of psychological well-being in older adults [3] and the therapeutic potential of place-based reminiscence has been proposed as an avenue in enhancing the quality of life for older people in long-term care facilities [4], sometimes using remote reminiscing facilities [8].

#### 4. WORKSHOP TOPICS

Our workshop on reminiscence systems aims to provide a platform for researchers from around the globe to share their ideas, experience and research in reminiscence systems and technologies. Authors are invited to submit papers based upon academically rigorous research and case studies in both theoretical development and applied research. Papers should present original works that have not been published or considered for publication. Papers with real-world applications are especially welcome. The main topic of the workshop is reminiscence systems, by which we mean information and communication technology based research applied in reminiscing. Topics include, but are not limited to, the following areas:

- Reminiscing system design
- Reminiscing as a therapeutic intervention
- Personalised Reminiscence Systems
- Human interactive interfaces
- Social aspects of using reminiscing systems
- Accessibility and reminiscing systems
- Multimedia content in reminiscing systems
- Networked reminiscing systems
- User-centered and participative design in reminiscence systems
- Constructing narrative threads from content
- Authoring content in reminiscence systems
- Intelligent content repurposing in reminiscence systems
- Applications of reminiscence systems

#### 5. PROCEDURE

The workshop invites position papers as well as papers that describe ongoing and current work related to the topics outlined above. Paper presentations will be scheduled for both morning and afternoon. Additionally, it is anticipated that two sessions within the workshop will seek to explore two key, important aspects of research in reminiscence systems. Firstly, an open session will promote discussion on the problems faced with such technology. Secondly, an open session will seek to identify the HCI research opportunities and future directions. In each session, we welcome open and provocative discussions that reflect positions from within different academic disciplines. The format of the workshop is as follows:

- First paper session
- Open session on problems and issues with reminiscing systems
- Second paper session
- Open session on research opportunities and future directions.

Submissions offering video and other multimedia presentation techniques are welcomed and will be accommodated where possible.

#### 5.1 Publication

Selected papers will be invited to publish extended papers in a special issue of International Journal of Computers in Healthcare (IJCIH).

#### 6. REFERENCES

- [1] Astell, A. J. Alm, N., Gowans, G., Ellis, M. P., Dye, R., & Campbell, J. (2008). CIRCA: A communication prosthesis for dementia. A. Mihailidas, L. Normie, H. Kautz & J. Boger (Eds). Technology and Aging. IOS Press.
- [2] BBC News, Source: <http://news.bbc.co.uk/1/hi/health/395143.stm>, Accessed 3/3/2009
- [3] Bohlmeijer, E., Roemer, M., Cuijpers, P., Smit, F., (2007), The effects of reminiscence on psychological well-being in older adults: a meta-analysis. *Aging and Mental Health*, 11(3) 291-300.
- [4] Chaudhury, H., (2003), Quality of life and place-therapy, *Journal of Housing for the Elderly*, 17,1/2, pp85-103.
- [5] Eurostat, NewCronos database (Health and safety), statistics – Key data on health 2002
- [6] Gibson, F., (2004), *The Past in the Present: Using reminiscence in health and social care*. Baltimore: Health Professions Press.
- [7] Koretsky, P. (2001). Using photography in a therapeutic setting with seniors. *Afterimage: The Journal of Media Arts and Cultural Criticism*, 29:3 (Nov/Dec), 8.
- [8] Kuwahara, N., Abe, S., Yasuda, K., Kuwabara, K., (2006) Networked reminiscence therapy for individuals with dementia by using photo and video sharing, *Assets '06: Proceedings of the 8th international ACM SIGACCESS conference on Computers and accessibility*, pp.125-132, ACM Press, New York, NY, USA.
- [9] Sandoz, C.J. (1996). Photographs as a tool in memory preservation for patients with Alzheimer's disease. *Clinical Gerontologist*, 17, 69-71.
- [10] Sarne-Fleischmann, V., Tractinsky, N., (2008) Development and evaluation of a personalised multimedia system for reminiscence therapy in Alzheimer's patients, *International Journal of Social and Humanistic Computing*, 1 (1), pp. 81-96.
- [11] Wang J.J., (2007), Group reminiscence therapy for cognitive and affective function of demented elderly in Taiwan, *International Journal of Geriatric Psychiatry*, Vol. 22 (12), pp.1235-1240.
- [12] Woods, B., Spector, A., Jones, C., Orrell, M., Davies, S., (2005), Reminiscence therapy for dementia, *Cochrane Database of Systematic Reviews*, Issue 1, Art. No.: CD0011