**Review of recent literature and multimedia projects
on ageing and communications media**

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Summary

This report, covering recent literature and multimedia projects on ageing and communications media, is organized in two parts. **Part A** is an annotated bibliography that reviews recent literature (since 2010) in the three overlapping areas of interest for the ACM network: ageing in relation to media and ICTs; ageing in relation to media and culture; and ageing in relation to communication and culture. This literature review omits studies on the health-related uses of ICTs by ageing populations, which constitutes the majority of the existing research, for example: e-health; assisted living; dementia and cognitive impairments; care giving and long-term care; access to health resources; and medical informatics. **Part B** lists a range of multimedia projects with ageing populations that have been conducted over the past few years. Focusing on Canadian examples, but also including some notable international initiatives from the US, Europe, and Latin America, this list represents community, government, and academic sectors.

Part A: Annotated bibliography

Afsarmanesh, H., Msanjila, S. S., & Camarinha-Matos, L. M. (2012). Technological research plan for active ageing. *Information Systems Frontiers 14*, 1-24.

This article describes the "ePAL" model for R&D around technological systems for older users. The model focuses on Europe, where the growing older demographic will need to remain within the workforce in the coming years. Active ageing initiatives are important for knowledge workers especially, helping them to remain active in the employment market as technology changes. The ePAL strategy thus encompasses the technological (participatory design, more sustainable freeware), societal (greater acceptance of older workers), and organizational (employment policies and government support) factors that should be included in the design process. In order to achieve this, the authors suggest the development of collaborative networks that include senior professionals, employers, government, community groups, organizations, and intelligent machines.

Bailey, A., & Ngwenyama, O. (2010). Bridging the generation gap in ICT use: Interrogating identity, technology and interactions in community telecenters. *Information Technology for Development, 16*(1), 62-82.

The authors compile a literature review of the generation gap in the use of ICTs in order to situate original empirical research on elderly populations' use of community telecentres in Jamaica. Their findings revolved around participants' self-concepts: younger users of the telecentres tended to see their identities as shaped by technology use and networked communities; older users tended to frame themselves as part of the "non-technology generation." The general lack of support for elderly populations' technology learning was cited as a source of anxiety for older participants. By corollary, seniors who received support from the community telecentres – such as computer literacy classes – reported an improved sense of identity and engaged in more cross-generational exchanges with younger participants. At the community level, the authors conclude that the telecentres provided a stronger and more cohesive cultural identity for this Jamaican town.

Baker, P., Bricout, J., Moon, N., Coughlan, B., & Pater, J. (2011). The Persistence of Participation: Community, Disability, and Social Networks. Paper presented at the 2011 Annual Meeting of the American Political Science Association, Seattle, WA, September 1-4.

This paper frames community and employment participation in relation to social media engagement, which is seen as potentially helpful for those with decreased mobility such as elderly and disabled populations. The authors conducted a survey of user groups that self-identified as seniors or disabled through social media platforms LinkedIn and Facebook. The relatively open nature of these platforms enables users to create their own groups based on various lifestyle and identity factors. These findings suggest that, from a

policy perspective, institutions need to be aware of population characteristics as well as platform opportunities for implementing advocacy and relevant support services for people with disabilities and older adults, in order to promote engagement and participation.

Boudiny, K. (2012). 'Active ageing': from empty rhetoric to effective policy tool. *Ageing and Society*, *1*(1), 1-22.

This conceptual paper dissects the meanings and mobilizations of the term "active ageing," critically interrogating it in order to put forth a more inclusive framework. The origins of active aging date to the 1940s and 50s, when socio-gerontologists discussed the importance of an active lifestyle in old age. Much of the literature in this field up to the late 1990s tended to frame older people in terms of their limitations, but more recently, active ageing has become an important policy goal that attempts to characterize ageing more positively through related concepts such as healthy ageing, productive ageing, and successful ageing. The different meanings of these terms creates a lack of conceptual clarity within the active ageing paradigm; thus the author provides a model for a clearer and more comprehensive version of active ageing. Her dynamic model integrates a number of pathways for older people to age actively by fostering adaptability, supporting the maintenance of emotionally close relationships, and removing structural barriers related to age or dependency. These strategies centre on engagement with life in general, rather than reducing activity to economic participation or physical exertion.

Boulton-Lewis, G. M. (2010). Education and learning for the elderly: Why, how, what. *Educational Gerontology*, *36*(3), 213-228.

This paper focuses on the educational and learning aspects of the active ageing policy initiative, reviewing the literature on how and why seniors learn in order to propose a program for developing opportunities for learning and education. The author concludes that while there is little empirical evidence that late-in-life learning halts the decline of cognitive processes, learning at least correlates with older people's enjoyment of life. Learning is said to achieve this by improving seniors' self-confidence and coping strategies, cognitive functioning and knowledge, health management, ability to keep up with technological developments, social relationships, and wisdom. At the same time, the author acknowledges a dearth of research projects in which seniors are directly involved, calling for additional studies that place ageing at the center of the debate and that incorporate older people themselves into the research process.

Buse, C. E. (2010). E-scaping the ageing body? Computer technologies and embodiment in later life. *Ageing and Society*, *30*(6), 987-1009.

Following from the lack of research on older bodies in studies of technology and embodiment, the author proposes that ageing bodies have unique relationships to technological artifacts. The methodology employed in this study combines qualitative interviews with time-use diaries completed by retirees in 17 households in the UK to

produce technobiographies of older computer users. The research findings show that changes in body techniques are often prompted or even required by new technologies. This suggests that seniors' acquisition of computer skills involves embodied competency and practical knowledge. In their self-assessments, the elderly participants in the study tended to frame their competencies in relation to younger people, who were seen as the ideal users of computer technologies because their physicality presents less of a barrier. As such, the design of new technologies should be made more consistent with those of older technologies in order for seniors to adapt more readily to the latest interfaces.

Camarinha-Matos, L. M., & Afsarmanesh, H. (2012). Collaborative networks in active ageing–a roadmap contribution to demographic sustainability. *Production Planning & Control*, *23*(4), 279-298.

This paper proposes a model for a strategic research plan aimed at increasing the technological adaptation of an ageing workforce. Through the collaborative networks paradigm, which describes how ICT platforms can assist in bringing together the various stakeholders invested in improving the transition to an ageing workforce, this model suggests that older people can take an active role in extending their professional activities into later life. Such extension, if properly balanced with leisure and social activities, is said to facilitate active ageing and to generate additional income to help seniors maintain their standard of living and to support the wider economy. Moreover, the use of ICTs for collaborative networks may also prevent isolation and loneliness or even the creation of 'elderly ghettos' by encouraging inter-generational interactions.

Caprani, N., Doyle, J., O'Grady, M., Gurrin, C., O'Connor, N., Caufield, B., & O'Hare, G. (2012). Technology use in everyday life: Implications for designing for older users. Paper presented at iHCI 2012: 6th Annual Irish Human Computer Interaction (HCI) Conference. Galway, Ireland.

Through an analysis of questionnaire data, this study explores the experiences and attitudes of older adults toward technology, comparing their responses with those of younger age groups. The questionnaire asked participants of various ages in Ireland about their everyday uses and experiences with technology, as well as their attitudes toward computers. Results showed that older age groups were less likely to have a computer or to use it for functions other than email, search, or voice calling (e.g. Skype). Yet older adults reported a higher interest level than other age groups in purchasing a computer and in acquiring training in ICT skills. In terms of mobile phones, older adults were less likely than other age groups to go beyond the basic function of voice calling or text messaging. One of the main barriers to older participants' use of more varied technological functions was anxiety around technology and perceived difficulty of use, however, older adults reported feeling confident in their capacity to learn computer skills. In fact, many older adults were already using computers for several different everyday activities, such as banking, shopping, making reservations, and communicating for social interaction. This suggests that more seniors will use technological systems in the future, provided that their functionality is good and that they have sufficient training documentation and support.

Edlin-White, R., Cobb, S., Floyde, A., Lewthwaite, S., Wang, J., & Riedel, J. (2012). From Guinea Pigs to Design Partners: Working with Older People in ICT Design. *Designing Inclusive Systems*, P. Langdon, J. Clarkson, P. Robinson, J. Lazar, & A. Heylighen, eds., 155-164. London: Springer.

In this chapter, the authors describe the user-centered approach and methodology in Human-Computer Interaction and how it can be applied to designing technologies for seniors. MyUI is a European Union funded research project that employs the user-centered approach to develop an accessible life-enhancing technological service for older people, particularly those who are experiencing age-related changes to their physio-motor, sensory, and cognitive abilities. The service uses web-enabled television, which has been developed and modified based on user-centered research conducted across Europe with seniors who are treated as co-creators in the research process. This chapter describes that process from the introduction of participants, to their growing rapport with the researchers, to their significant contributions and impact on the design of the MyUI service. The authors conclude that their method was useful in the design of the service, and more importantly, that it could set a precedent for further user-centered studies on technology development for seniors.

Essén, A., & Östlund, B. (2011). Laggards as innovators? Old users as designers of new services & service systems. *International Journal of Design*, *5*(3), 89-98.

This article asks how involving older people in the process of technological design might serve to increase the market share of devices aimed at ease-of-use for a broad consumer market. Using a case study methodology, the authors describe a previous research project that focused on supporting a group of retirees from central Stockholm who wanted to remain in the city center, where they had lived a good part of their lives, rather than move to a nursing home when their need for assistance increased. The participants, aged between 63 and 89, collaborated with an IT company interested in learning about older users' technological needs in this transitionary period. By incorporating older people in the design of IT systems, the project showed how supposed "technophobes" or "laggards" – this group of seniors – were able to provide new insights into designing innovative, functional systems that were consumer-driven as opposed to producer-driven. This case suggests that rather than laggards, seniors might be seen as "been-arounds": resources rather than recipients for innovation.

Feist, H. R., Parker, K., & Hugo, G. (2012). Older and Online: Enhancing social connections in Australian rural places. *The Journal of Community Informatics*, *8*(1), http://www.ci-journal.net/index.php/ciej/article/view/818/849

The 'Linking Rural Older People to Community through Technology' project aims to improve access and connection to personal networks and the wider community for older Australians in rural locations through the use of new technologies. This paper describes the project's preliminary findings through four vignettes that illustrate the experiences of older adults in rural Australia as they negotiate communication platforms such as email,

Skype, and Facebook. While participants' experiences were framed mostly in positive terms, the authors emphasize that technological adoption is not always an easy or sufficient means for older adults to maintain quality of life while ageing.

Fernández-Ardèvol, M. (2011). Mobile Phones in a Retirement Home: Strategic Tools for Mediated Communication. *Digital Information and Communication Technology and Its Applications*, 395-406.

Through a case study methodology, the author examines how residents of a retirement home use mobile phones. This study is part of a larger research project on mobile communication among the elderly population in the metropolitan area of Barcelona. The results of qualitative semi-structured interviews provide insight into seniors' social perceptions, representations of mobiles, and everyday uses of the technology. Findings indicate that mobile phones are included within elderly participants' personal systems of communication, where the mobile phone has become a central channel and a strategic tool for seniors who have moved from their private household to a retirement home. Yet at the same time as the mobile is an important tool for connectivity, its frequency of use is relatively low. This suggests that the mobile is viewed by participants as a special device for specific purposes, and not as a multi-purpose communication and entertainment platform.

Fernández Ardèvol, M. (2010). Interactions with and through mobile phones: what about the elderly population? Paper presented at the 2010 European Communication Research and Education Association's European Communication Conference, Hamburg, Germany, 12-15 October.

This paper offers an interpretation of 2008 Eurostat data on mobile adoption by elderly populations across EU countries. The data show that while older people tend to be late adopters of mobile technologies, especially in countries where general mobile penetration is lower, they are likely to become mobile users – and this is particularly true for people between ages 55-64 than for people between ages 65-74. Moreover, seniors are less likely to use the networked capabilities of mobile devices, such as email, Internet browsing, and sending pictures or video. The author concludes that this is due to the way mobiles occupy a more peripheral position in older people's communicative ecology as compared to the central role they play for younger people.

Firdhous, M. F. M, Karunaratne, P. M. (2011). An ICT Enhanced Life Quality for the Elderly in Developing Countries: Analysis Study Applied to Sri Lanka. *Journal of Health Informatics in Developing Countries, 5*(1), 47-59.

The authors evaluate different ways in which ICTs might contribute to seniors' quality of life in Sri Lanka, according to the criteria enumerated in the United Nations Principles for Older Persons. These criteria are based on a notion of health provided by The World Health Organization (WHO), which defines health as the state of complete physical, mental, and social well-being, and not merely as the absence of disease or

infirmity. In this framework, quality of life for the elderly rests on their ability to remain included in society – a goal that ICTs can facilitate by supporting a knowledge portal for seniors to share their wisdom in areas such as agriculture, to network with others, to continue working past the age of mandated retirement, and to have access to e-government, educational, and entertainment services. The authors suggest that this could be best achieved through smartphones, given the increased penetration of mobile devices in Sri Lanka over the last few years.

Gil, H., & Amaro, F. (2010). Active Ageing and the Role of ICT and Assistive Technologies: Reflections and discussion for their use in Portugal. Paper presented at the 2010 e-CASE & e-Tech International Conference, January 25-27, Grand Lisboa, Macau.

In an attempt to provoke discussion around ageing and technology in Portugal, this paper begins with a literature review of research from other countries on the ways that ICTs may support active ageing. The review leads into a discussion of how older adults might be trained in the use of ICTs so that they can overcome some of the typical barriers facing seniors' full adoption of new technologies. It is important for older adults to integrate ICTs more fully into their lives as they age in order to enrich their means of gathering information, communicating and connecting with friends and family, maintaining gainful employment, and engaging in entertainment and commercial spheres. Improved technology training for older Portuguese would thus complement active ageing policy imperatives put forth by global organizations, such as the WHO, and governmental bodies such as the European Union.

Gilly, M. C., Celsi, M. W., & Schau, H. J. (2012). It Don't Come Easy: Overcoming Obstacles to Technology Use Within a Resistant Consumer Group. *Journal of Consumer Affairs, 46*(1), 62-89.

This study involved interviewing and surveying older Internet users in the US in order to determine ways in which resistance to technological adoption might be overcome. In fact, the seniors in the study expressed curiosity and interest in new technologies, among several other developments in hobbies and culture more generally. And while many respondents felt that they may learn how to use computers more slowly than younger people, they also discussed various strategies for proactively coping with their slowness. Overall, the seniors in this study could be qualified as technology optimists, an attitude that helped them to overcome some of their discomfort around learning how to use new devices and systems. The survey research confirmed that technology optimism was a strong predictor of technology acceptance and use, and even innovativeness. For seniors with lower technology optimism, getting over a resistance to learn was more difficult, however, it was also more rewarding once they did overcome those barriers and were able to use Internet applications competently.

González, A., Ramírez, M. P., & Viadel, V. (2012). Attitudes of the Elderly Toward Information and Communications Technologies. *Educational Gerontology*, *38*(9), 585-594.

Through an exploratory survey conducted with 240 elderly participants in a Spanish digital training course, the authors asked about seniors' participation in activities, knowledge and use of computers and the Internet, prospects on learning and using computers, personal competence, and self concept. Findings indicated that involvement in various other activities was a predictor for seniors' approaches to technology. Their main reasons for getting involved in this training program was an eagerness to learn in general, along with a specific motivation to learn about computers. In turn, this willingness to learn informed seniors' self-concept, where they saw themselves as adaptive to changing environments.

Hachiya, K. 2010. Older Japanese adults and mobile phones: An applied ethnographic study. Diss. University of Hawai'i at Manoa.

This dissertation uses actor-network theory to understand how Japanese seniors aged 59-79 make meaning in their everyday uses of mobile phones. Through qualitative research combining interviews and participants' handwritten daily logs, the author compiles a phenomenological and constructivist picture of the relation between seniors and mobile technology. She concludes that for this group of seniors, cultural and social practices cannot be isolated from communicative artifacts like the mobile phone – digital technologies have become a part of older adults' everyday practices, poising this group to be prepared for further technological change.

Hakkarainen, P. (2012). 'No good for shovelling snow and carrying firewood': Social representations of computers and the Internet by elderly Finnish non-users. *New Media & Society*.

By explicitly researching non-users of the Internet among elderly people in Finland, the author seeks to understand the social representations of technology that guide such refusal. Social representations are collective ways of representing an artifact or phenomenon – the non-users studied here shared certain social representations of Internet-based technologies. Solicited by a series of newspaper advertisements, responses from seniors aged 60+ showed that the computer was primarily regarded as a tool or thing with variable levels of usefulness, depending on the user's needs or desires – these non-users expressed their lack of need or desire for computers. Respondents also tended to see the computer more negatively as a depriver of freedom, according to moral panics around Internet addiction. Even more negatively, some respondents framed the computer as dangerous in terms of security, physical health, and loss of traditional lifestyles. Finally, many respondents saw Internet technologies as a passing fad or as a mass phenomenon in which they wanted no part. Many of these attitudes of users could be traced to a feeling of social inequality. As such, the author recommends that digital inclusion programs for the elderly take into account some of these social representations of ICTs, as well as giving seniors opportunities for active ageing that do not require computer technology.

Han, D., & Braun, K. L. (2011). Promoting Active Ageing through Technology Training

in Korea. In *Intelligent Technologies for Bridging the Grey Digital Divide*, J. Soar, R. Swindell, & P. Tsang, eds., 141-158. Hershey, PA: Information Science Reference.

This chapter takes as its starting point the fact that the growing seniors demographic in South Korea requires a new cultural perspective on retirement and a better image of older persons. In line with the Active Ageing Framework of the World Health Organization, the Active Ageing Consortium in Asia Pacific advocates for changes to individual practices, social norms, and social policy to support the continued engagement of older adults as active contributors to society in the 21st century. Digital literacy is a critical element of Active Ageing, enhancing participation in current modes of communication and social connectivity. To promote the concept of Active Ageing with Digital Ageing, Korea's Research Institute of Science for the Better Living of the Elderly (RISBLE) aims to increase Korean elders' access to information and their opportunities for communication and participation. The chapter outlines how RISBLE's programs – Cyber Family, Internet Navigator, and the 1080 Family Online Game Festival – help the elderly master new technology, strengthen intergenerational relations, gain leadership roles, and contribute as community teachers. In reviewing the Korean situation of ageing, the authors offer a series of "best practices" for other communities to learn from RISBLE's work to reduce the ageing digital divide and promote digital life for older persons in South Korea.

Ianculescu, M., & Parvan, M. 2011. Becoming a Digital Citizen in an Aging World. *International Journal of Education and Information Technologies, 5*(2), 182-189.

Using a framework for digital citizenship that rests on ICT literacy, this study examines seniors' use of the Internet for active ageing. The authors describe ICT literacy as comprising five main components: access to knowledge; management of information; integration of that information into existing schema; evaluations of information; and the creation of new information. This type of literacy that relies on computational infrastructure may help elderly people become more adept digital citizens. Through a case study of the web portal AgingNice, the authors describe how digital citizenship for the elderly might be assisted by web-based programs.

Ji, Y. G., Choi, J., Lee, J. Y., Han, K. H., Kim, J., & Lee, I. K. (2010). Older Adults in an Aging Society and Social Computing: A Research Agenda. *International Journal of Human-Computer Interaction*, *26*(11-12), 1122-1146.

This article outlines a number of social computing approaches to the problem of the generational digital divide by asking what kinds of computer systems might be developed to address the specific needs of older populations. Described as protocols for emerging research agendas in the field of Human-Computer Interaction, these approaches are classified as either basic (background research) or applied (specific knowledge translation) studies. The basic studies include research on seniors' social network site usage, the cognitive abilities of the elderly, and their everyday social interactions. The applied studies include the development of social games, mobile user interfaces, and

interactive TV. Together, this group of basic and applied studies comprises a broad research agenda that provides direction for future research on social computing and older adults.

Kankainen, A., & Lehtinen, V. (2011, November). Creative personal projects of the elderly as active engagements with interactive media technology. In *Proceedings of the 8th ACM conference on Creativity and cognition* (pp. 175-184). ACM.

The researchers use an in-depth qualitative methodology that combines contextual interviews with seniors' media diaries to examine how they engage in active ageing through the development of their own creative personal projects later in life. These projects involved the use of interactive media technologies, which were defined as such by the participants themselves, in the daily lives of seven retired seniors living in Helsinki. In general, the participants described their everyday "media moments" as focused times, generally free from interruption or multitasking. They used a variety of digital media services, although they preferred face-to-face communication and often experienced usability barriers with new technological interfaces. The authors interpret these patterns from the point of view of creative personal projects, where seniors tended to use media as part of larger projects and storytelling practices. The implications here for the design of media systems include improvements to usability, shared access to professional media content, annotation services, an enhanced mix of personal and professional content, and simple ways of aggregating content.

Kohlbacher, F., & Herstatt, C. (Eds.). (2010). *The silver market phenomenon: Marketing and innovation in the aging society*. Berlin: Springer.

This edited collection addresses the growth of the so-called "graying market" or "silver market," the market segment more or less broadly defined as those people aged 50 and older. Increasing in number and share of the total population while at the same time being relatively well-off, this market segment can be seen as attractive and promising, although still quite underdeveloped in terms of product and service offerings. This book offers several perspectives on the challenges and opportunities in leveraging innovation, technology, product development, and marketing for older consumers and employees. Key lessons are drawn from a variety of industries and countries, including the lead market Japan. Relevant chapters here include "Integration of the Elderly into the Design Process," "Designing for Everyone, One Person at a Time," "The Importance of Web 2.0 to the 50-Plus," "In-Vehicle Telematic Systems and the Older Driver," and "The End of Mass Media: Aging and the US Newspaper Industry."

Leikas, J., Saariluoma, P., Rousi, R. A., Kuisma, E., & Vilpponen, H. (2012). Life-Based Design Against Loneliness Among Older People. *The Journal of Community Informatics*, *8*(1), http://ci-journal.net/index.php/ciej/article/view/778/890

Combining the protocols of human-technology interaction with those of life-based design, the authors suggest that the design of technological systems should put user need at the forefront. They take as their case example the specific user needs of older adults

who are experiencing loneliness. Loneliness is said to decrease quality of life, and therefore, if technological systems can address this problem, then the life situations of lonely seniors will be improved upon. In order to do this, technology design must be directed along a path of intervention – this paper constructs a model for creating different kinds of intervention through a five-step process: 1) Identify the pivot problem (loneliness among seniors); 2) Analyze its human dimensions (e.g. through psychological studies); 3) Conceptualize a technical solution (a service for loneliness); 4) Harmonize the solution with research results; 5) Analyze possible usability problems. The development of a service for loneliness among older adults thus undertaken will have more potential to be effective because it starts from the point of view of the user's needs.

Loos, E. (2012). Senior citizens: Digital immigrants in their own country?. *Observatorio (OBS*)*, *6*(1), 1-23.

The article compiles the results of a number of recent exploratory studies on seniors in the Netherlands to argue that a spectrum of technological capability is represented by users young and old. Seniors are not necessarily on the wrong side of the "digital divide"; rather, different life stages require different kinds of technological adaptations, and technological facility is predicated on socialization as much as other demographic variables. A key application of these results is to e-government services, where accessibility of information is important for all users, and particularly for older people who rely on social services. Given that Dutch seniors evidenced a range of technological capabilities, designing e-government services from a multi-channel approach is essential to make information accessible to widest segment of the population.

Marcellini, F., Bevilacqua, R., & Stara, V. (2011, May). HAPPY AGEING (AAL-2008-1-113) project overview: solutions for independent living and technology acceptance. In *Proceedings of the 4th International Conference on Pervasive Technologies Related to Assistive Environments* (p. 61). ACM.

This paper describes the "Happy Ageing" project, a research project that follows the user-centered design paradigm in order to build a technical system that supports older people's everyday activities. The Happy Ageing project looks at EU countries in particular to determine how participatory mechanisms can be built into the design process. The system being developed consists of a lifestyle monitor that helps seniors remember certain important daily activities, a navigation assistant that helps the user's mobility in closed environments, and a personal assistant that helps with small household tasks like dialing the phone or operating appliances. Testing of these systems will involve seniors in the design process, where the implementation of the modular system of technology will be done in accordance with seniors' attitudes toward technology, ergonomic needs, psychological considerations, social and physical environments, and individual personality characteristics.

McLean, A. (2011). Ethical frontiers of ICT and older users: cultural, pragmatic and ethical issues. *Ethics and information technology*, *13*(4), 313-326.

From a critical standpoint, the author examines some cultural and practical considerations around e-inclusion for Europe's elderly population that will affect how well they are able to adopt new information technologies. The main cultural variables under consideration here are ageism, what constitutes independent living, and the ethics of categorizing senior citizens. Moreover, a number of practical considerations around the implementation of technologies like smart homes and monitoring devices, as indicated by ethnographic research with Irish seniors, are important variables affecting the ethics of e-inclusion: smart homes need to be adapted to the cognitive abilities of seniors while they are still early on in the ageing process, in order to improve memory making; socialization using ICTs does not supplant the benefits of physical proximity in social contact; monitoring technologies may compromise privacy and lend a false sense of security. These and other considerations are crucial to account for in the design of technological systems for seniors that may not fully appreciate the varied cultural and practical assumptions undergirding popular conceptions of the elderly.

Medeiros, A. C. B., Crilly, N., & Clarkson, P. J. (2010). Affective response to ICT products in old age. In C. Peter, et al. (eds.) *Emotion in HCI–Designing for People, Proceedings of the 2008 International workshop*, 32-37. Stuttgart: Verlag, 2010.

The authors hypothesize that older adults predominantly rely on affective responses to technology while young adults rely on cognitive responses. To test this hypothesis, this study involved conducting semi-structured interviews with younger and older adults on their approaches to new technologies and technology use more generally. The findings show that indeed, younger adults were more easily able to adapt to new technologies through trial and error, and reported using devices like mobile phones for multiple functions in addition to personal communication. Older adults were less likely to multitask, and framed the importance of technologies like computers through their personal memories or recollections. They also attempted to learn about new technologies by reading instruction manuals, which tended to be unhelpful and poorly written. In terms of affective framings, younger people were more likely to describe ICTs as indispensable to their lifestyles, while older adults saw technologies as one of many possible tools for communication. Moreover, older adults reported negative feelings associated to technologies that they felt were not designed with their needs in mind.

Mikkola, K. and Halonen, R. (2011). "Nonsense?" ICT perceived by the elderly. Paper presented at the European, Mediterranean & Middle Eastern Conference on Information Systems 2011 (EMCIS2011), May 30-31, Athens, Greece.

In a feasibility study designed to determine the views of elderly people toward new technologies, the researcher interviewed seniors living in Finland about their use of ICTs and social media. Participants tended to view computers as practical tools, but didn't tend to use them for a wide variety of activities, mostly preferring email and online banking applications. Yet most respondents saw a utility for computers if they were to face decreased mobility in the future, and also generally acknowledged that it was important to stay up-to-date with new technologies. Participants described various barriers to

learning how to use ICTs (including some physical limitations like decreased eyesight and fine motor skills), and some preferred not to use ICTs at all. For social media in particular, respondents agreed that they had little time or use for sites like Facebook, although they all knew about the site. The mobile phone was seen as potentially the most practical ICT device, and attitudes toward mobiles reflected an overall positive attitude toward ICTs by this group of seniors.

Mullen, H., Moss, G., & Wulf, C. (2012). Digital Communications and Older Groups: An Anglo-French Comparison. *Lessons on Profiting from Diversity*, Gloria Moss, ed., 67-93. New York: Palgrave Macmillan.

The authors undertake a comparison of ICT use by people over age 50 in the UK and France, in order to explore the marketing implications of older people's technology practices. Findings show that in both countries, the 50+ age group needs to be subdivided into smaller groups, since there are many differences in Internet and mobile phone use among this cohort. The marketing of such devices to older people should, moreover, emphasize customization of the devices to their specific needs. It would also be advantageous for marketers to build on older people's emotional or affective associations to technologies as a means of maintaining social connections with friends and family. The power of this consumer group is significant; thus, if these marketing campaigns could successfully convey the utility of ICTs while not offending the "prickly" sensibilities of older consumers, they could effectively increase market share in digital communications technologies.

Nervik, T., Dahl, Y., & Kofod-Petersen, A. (2011). The value of role models in design of social media for elderly. Paper presented at the 23rd International Conference of the European Federation for Medical Informatics, August 28-31, Oslo, Norway.

This study was part of a larger EU research project called Co-living, where a social media portal for the elderly was being developed as a means to improve older adults' active living. Through a series of focus groups, the researchers sought to determine what constitutes an active lifestyle (both physical and social) that is supported by technology. This paper reports on the group of participants who served as role models in this regard; these elderly participants reported being frequent users of multiple communication platforms, including email, SMS, Facebook, and Skype. They also were conscious that virtual socialization was not a replacement for in-person socialization, and thus kept up with a number of social activities not explicitly supported by ICTs. These findings will be used in the design of the Co-living portal in order to make sure that this platform will be useful for improving older adults' quality of life.

Neves, B. B., & Amaro, F. (2012). Too old for technology? How the elderly of Lisbon use and perceive ICT. *The Journal of Community Informatics*, *8*(1), http://ci-journal.net/index.php/ciej/article/view/800

This study involved a survey of 500 elderly residents of Lisbon that asked how they were using mobile phones, computers, and the Internet. Findings showed that mobile phones

were by far the most prevalent ICT to be used by respondents (74%), contrasted with computers (13%) and the Internet (10%). The main reason to use a mobile phone was for communication with family, friends, and for emergencies. The authors followed up the survey with ten qualitative interviews to help interpret these results. Interview findings confirmed that communication was the strongest motivation for mobile phone use – this meant the voice function in particular. It was rare for seniors to use the advanced functionalities of the phone on a regular basis. One of the reasons for the lack of use of mobile data, along with computer and Internet more generally, was tied to low education levels. Another reason was the participants' perception of mobile phones as an extension of familiar landline telephones, while computers and the Internet were seen as more technical devices requiring a higher skill level and income to afford the technology. Yet despite the low usage of networked technologies, participants reported positive feelings toward ICTs, especially in the context of inter-generational relationships with children and grandchildren.

Nimrod, G. (2011). The fun culture in seniors' online communities. *The Gerontologist*, *51*(2), 226-237.

Through an online ethnography of seniors' communities and gaming sites over one year, the author found that the fun culture of these online environments offers seniors many benefits, including meaningful play, community building, the opportunity to practice and demonstrate their abilities, and means for coping with ageing. There were differences in casual leisure online between regular participants versus lurkers, where participants had more opportunities for socialization and self-expression. Lurkers experienced online gaming and communities as forms of passive entertainment, but they still seemed to spend a significant amount of time on the sites, suggesting that they enjoy some benefit from this. One of the important aspects of these online interactions was the way that a degree of anonymity led participants to be able to discuss topics such as sexuality, gender differences, and alcohol. The author concludes that as a complement to offline socialization, online fun cultures may give seniors new ways of coping with the challenges of ageing and thus allow then to experience ageing more positively.

Obi, T., Ishmatova, D., & Iwasaki, N. (2012). Promoting ICT innovations for the ageing population in Japan. *International Journal of Medical Informatics*. (online early)

The authors explore a number of potentially effective measures and strategies for the promotion of ICT-enabled innovations for the elderly and people with special needs. A review of current government initiatives in the field of e-health and accessibility shows how Japanese policy measures are attempting to address challenges faced by a rapidly ageing society. Through a policy analysis, the authors evaluate the results of Japanese government efforts in the promotion of ICT solutions for its older population against the availability of special infrastructure, device interfaces, and services and applications that meet the essential needs of the elderly with regard to quality of life in such a highly developed country. Findings indicate that more efforts are needed to increase the penetration of ICT to transform all domains of society in order to meet the challenges produced by a rapidly ageing population. For that purpose the paper proposes several

areas in which to facilitate ICT innovations for an ageing population. It then outlines a number of strategic directions for the formulation of specific measures that will place Japan in the forefront of societal transformation.

Östlund, B. (2011). Silver Age Innovators: A New Approach to Old Users. In *The Silver Market Phenomenon*, Kohlbacher, Florian, Herstatt, Cornelius, eds., 15-26. Berlin: Springer.

This chapter frames older people as innovators, specifically asking about how older people's experiences might impact innovations and design in general. Based on a series of studies with older adults in Sweden conducted between 2005 and 2009, the author summarizes three different ways of exploring their needs and demands from the point of view of innovation. The first sees seniors' technology needs as "active needs," in the sense that they have expressed concrete expectations from technology based on certain deficiencies or lacks that they are able to specify. The second type of needs are those "not yet activated," where general or indiscriminate problems with technology can be expressed by seniors, but they are as yet unable to formulate an appropriate or directed solution. The third type are "latent needs," needs that seniors might experience but cannot or do not express, such as the need for a continuation of certain daily routines or habits. These three needs all have different implications for the design process and also for the research process. Further research into these specific technological needs will help designers to create products specifically tailored for seniors, where the seniors themselves act as the key drivers of innovation.

Pangbourne, K., Aditjandra, P. T., & Nelson, J. D. (2010). New technology and quality of life for older people: Exploring health and transport dimensions in the UK context. *Intelligent Transport Systems, IET*, *4*(4), 318-327.

This study explored inclusion and quality of life for older adults using ICTs for their everyday transportation and healthcare needs. Through a series of focus groups and questionnaires, senior citizens in the UK were asked about their experiences and attitudes toward ICT. The researchers found that while older adults tended to be somewhat less comfortable with ICT than young age groups, not integrating technologies as fully into their daily lives, they also found that there were significant individual differences in terms of familiarity and facility with newer technologies. In relation to transportation and healthcare, respondents noted that there needed to be better co-ordination between these sectors to improve their daily activities through the use of ICT, such as being able to reserve parking at healthcare facilities, or to book bus tickets or medical appointments. These findings suggest that in order to design more user-friendly and user-relevant intelligent transport systems, policymakers must take into account the specific needs of older cohorts particularly in their access to healthcare services.

Pappadà, G., & Elenurm, E. (2011). How can Member States conciliate active ageing, employment and ICT? Report prepared for ECOM45+ E-competences and E-communication for People from their Mid to Late Forties and Seniors, http://www.ecom45.satd.uma.es/

This report compiles statistics on the trends in active ageing and older adults' employment characteristics in relation to ICT penetration in EU countries, particularly Spain, Italy, France, Bulgaria, Hungary, and Estonia. Demographic changes in these nations have meant an increase in the proportion of people over age 64, which has prompted a number of policy responses in the EU to the challenges of an ageing workforce. Attempts to increase the number of older workers face difficulties in the currently uncertain labour markets that tend to squeeze out older workers who are less skilled in ICT, as well as older women. The authors attribute this squeeze to age- and gender-based discrimination, which must be addressed as part of training programs intended to improve older people's ICT skills, along with workplace policies that would increase part-time opportunities and gradual retirement schemes. These initiatives are crucial because older workers are needed to support the welfare systems of these states, and additionally, continuing to work later in life has shown to aid in active ageing for seniors.

Parra, C., D'Andrea, V., & Giacomin, G. (2012). Enabling Community Participation of Senior Citizens through Participatory Design and ICT. Paper presented at the Community Informatics Conference, November 7-9, Prato, Italy.

In this paper, the authors describe how they organized an ICT laboratory for seniors in northern Italy using a participatory design framework. In asking how the elderly could be engaged into ICT activities through the research project, the authors invited them to become "research collaborators" who would participate in the design of the project itself. Seniors were engaged in sharing their experiences through the use of ICT, in particular, through the use of a blog, which was chosen by the participants as one of the topics to learn during the lab. The Laboratory and subsequent blog, still actively updated, have both served as means for enabling community participation and have provided important insights about seniors' ICT needs, including: they would like to share information with each other, such as recipes, excursions, and wisdom in the form of poems and short stories; they experience the best learning environment when working in pairs; and they would like acknowledgement of their authorship and ownership of online content. Some of the challenges they faced included having multiple applications open at once, having different paces of learning, and some physical barriers such as poor fine motor skills and eyesight. These findings suggest that future design projects would benefit from including seniors as research collaborators who have specific ICT needs and challenges.

Patrício, M. R., & Osório, A. (2011). Lifelong learning, intergenerational relationships and ICT: perceptions of children and older adults. In *Proceedings of 2nd Conference of Elderly, Education, Intergenerational Relationships and Social Development*, 224-236.

This paper asks how children and older adults perceive and enact lifelong learning and generational solidarity, particularly through organized training activities in the use of ICTs. Through a series of informal conversational interviews with Portuguese grandparents and grandchildren, along with observation of the way they participated in a

particular digital skills training program, the researchers sought to understand their age-related interests and perspectives on ICTs. Findings revealed that older adults represent a wide distribution of different attitudes toward ICTs, based upon their specific age, stage of life, financial situation, personality type, sociability, and personal interests. Despite these individual differences, however, the digital skills workshop mostly helped the elderly participants in demystifying technology and improving their confidence. This was especially true when participants could benefit from intergenerational cooperation, which also helped the younger participants to focus and act more responsibly.

Plaza, I., Martín, L., Martin, S., & Medrano, C. (2011). Mobile applications in an aging society: Status and trends. *Journal of Systems and Software*, *84*(11), 1977-1988.

In a review of mobile functionalities and applications that can satisfy the requirements and needs of older people, the authors ask how such technology might improve seniors' quality of life. This analysis of the state of the art in mobile technologies evaluates the strengths and weaknesses of the current systems, and looks toward emerging trends and promising future lines of research in the domain of Human-Computer Interaction. Areas covered by the literature review include the use of mobiles by the elderly for health and wellness, safety and security, everyday chores, learning, religion, social interaction, hobbies, and working life. Despite the amount of research that has been done, there remains a number of significant gaps: the need to incorporate older users in the design of the products and services; the lack of customized mobile handsets with open software; the need to consider support and training initiatives; the lack of standard methods to evaluate the impact of mobile applications; the consideration of price and cost aspects of new technologies; and the social and ethical risks of new technologies. Yet even though these gaps remain, the research already conducted shows that mobile applications hold great promise for improving the quality of life of the elderly and supporting a cohesive and inclusive society.

Richardson, M., Zorn, T. E., & Weaver, C. K. (2011). Older People and New Communication Technologies. *Communication Yearbook 35*, C. T. Salmon, ed. 121. New York: Routledge.

This chapter reviews the literature published between 1990 and 2010 on older people and newer ICTs, focusing especially on computers and the Internet. Three main narrative themes dominate this body of literature: 1) the enabling machine and isolated elders; 2) the potential divider and marginalized seniors; and 3) the desirable commodity and grey consumers. The gaps and limitations of the literature reviewed include the lack of a nuanced consideration of older adults as anything other than frail or in need of constant care. A more realistic view on the diversity of older people's lifestyles would help to frame ageing as a life stage, rather than as a problem, and a life stage that is also impacted by other variables such as cohort, gender, and education level. Moreover, the narratives that frame the Internet and computers as solutions to the problems of ageing risk being too optimistic about technology's potential and overly deterministic about its effects. Future research in this area should examine sense-making processes through which older adults engage with technologies, alternative narratives around age and

technology, intersectionality and within-group differences, and longitudinal effects of technology adoption and training.

Salovaara, A., Lehmuskallio, A., Hedman, L., Valkonen, P., & Näsänen, J. (2010). Information technologies and transitions in the lives of 55–65-year-olds: the case of colliding life interests. *International journal of human-computer studies*, *68*(11), 803-821.

The authors examine older adults who are entering retirement at around age 55-65, when they are still healthy, active, and computer-literate. This group's active engagement with networked computers challenges the typical assumption that older people find it difficult to embrace new technologies and also that their main interests are health-related. Yet while these retirees may be different from previous generations in this way, they nonetheless face the same kinds of transitions, or life changes, that generally take place in these years. Besides retirement, these transitions include changes in health, housing, social interaction, work life, and personal finance. This paper presents a diary-aided interview study of late middle-age adults in Finland and Sweden with a focus on the interplay between technologies and transitions. Transitions were found to play a part in how the life interests of late middle-aged persons are often conflicting, forcing them to choose from among various "possible selves." At its best, technology can help alleviate these tensions. This finding suggests that technologies designed for this age group should address their needs in organizing new parameters of their life schedules, and maintaining and renewing social contacts.

Sawchuk, K., & Crow, B. (2012). I'm G-Mom on the Phone. *Feminist Media Studies*, *12*(4), 496-505.

The authors explore how a diverse group of grandparents, mostly grandmothers, use the cell phone to interact with their grandchildren through a method that combines group discussions and informal observations with Canadian seniors. Using the concept of "remote grandmothering," the study analyzes the establishment of intimacy and inter-generational dis/connection through the mobile phone. In focusing on the affective parameters of these practices, the authors found that mobile devices were often given to seniors by their children or grandchildren, lending the device a familial ownership and a symbolic attachment to family members. Mobile devices were also said to have altered the family dynamic by highlighting generational differences in the norms around mobile phone use. These differences were often experienced as a pressure for seniors to keep up with their grandchildren by learning how to send SMS messages, for example. Such affective motivations for using new technologies were shown to be significant considerations for seniors as they used new technologies to encourage familial intimacy.

Sawchuk, K., & Crow, B. (2010). Talking "costs": Seniors, cell phones and the personal and political economy of telecommunications in Canada. *Telecommunications Journal of Australia*, *60*(4), http://tja.org.au/index.php/tja/article/view/4/20

In this paper, the authors describe results from discussion groups with seniors across Canada. Respondents were asked about how they deal with the high costs of mobile service in the country, and how they use and relate to their phones on an everyday basis. Findings showed that seniors had generally positive feelings about mobile phones but generally negative feelings about service providers. It was felt that costs of service were too high and customer service was not responsive or attentive to the needs of carriers' senior customers. In order to deal with these challenges, respondents reported enacting a number of practices to negotiate high costs, such as turning off the device when it was not in use, or declining to use advanced services such as mobile data. These results suggest that for mobile providers to address the needs of seniors, they should make mobile communications more affordable, provide better customer service and cost transparency, and have devices available that are easy to operate with intuitive design.

Sayago, S., & Blat, J. (2011). An ethnographical study of the accessibility barriers in the everyday interactions of older people with the web. *Universal Access in the Information Society*, *10*(4), 359-371.

Through an ethnographic study of the real-life uses and interactions of nearly 400 older people with the web over three years, the authors found that a number of specific barriers limit their daily ICT interactions, experiences, and education. Difficulties understanding terms, remembering the steps required to perform a task, and using the mouse tended to affect older people's interactions more severely than understanding icons, perceiving visual information, or using the keyboard. These barriers and their degree of severity are independent of digital literacy and education and are instead largely explained by key aspects of real-life use, independence (not relying on others), inclusion (not feeling different or in need of special assistance) and socialization (not being alone), which is also their main motivation for using the web. Such results suggest that reducing cognitive load should be a key concern for designers of web-based systems for the elderly. Moreover, new systems should strive to make older people feel included and provide evident functionality for socialization.

Sayago, S., & Blat, J. (2010). Telling the story of older people e-mailing: An ethnographical study. *International journal of human-computer studies*, *68*(1), 105-120.

This paper describes a three-year ethnographical study aimed at revealing and explaining the email practices of older adults in Barcelona. Results show that seniors use email frequently with friends, and less frequently but still regularly with family such as children and grandchildren. Emailing is a common practice regardless of geographic distance from their communication partners, and is incorporated into the daily lives of seniors as a productive use of computer time. The participants in this study were chosen based on their participation in informal ICT workshops and computer labs, where they reported feeling less isolated while they engaged in their email activities. While they all used email regularly, participants reported a lack of interest in advanced functions of email programs, such as BCC, filtering, and address management. This finding coincides with participants' framing of email in terms of paper mail, where they do not change their mail

habits in the computer interface as a way to avoid greater cognitive load in remembering how to use the new features. Some implications of this study for designing better email programs for seniors include the use of terminology consistent with paper mail features, the inclusion of affective interfaces for emailing children and grandchildren with easy access to photos, and the leveling of complexity of email programs so that the person can choose to use a more basic version.

Steenhuyse, M., Hoebeke, J., Ackaert, A., Moerman, I., & Demeester, P. (2012). TV-kiosk: an open and extensible platform for the wellbeing of an ageing population. In *Grid and Pervasive Computing Workshops*, 54-63. Berlin: Springer.

This paper presents TV-kiosk, an open and extensible TV-based platform that aims to stimulate social interaction, avoid isolation and deliver information. One of its distinguishing features is the underlying decentralized network communication approach based on advanced technology to securely and automatically interconnect devices and the TV-based user interface specifically designed for elderly. The openness and extensibility of the platform make it possible to easily integrate all kinds of new and existing e-services. Currently, a field trial is ongoing in a care center in Belgium, where TV-kiosk is being used by elderly, their family, and caregivers. Preliminary results of this field research suggest that a major motivation to participate was that the platform enables the residents and their relatives to have regular contact without the need for physical transportation. Yet, despite the user-friendly television interface, some residents still have some difficulty using it and need assistance from staff or family. Furthermore, even family members sometimes lack the basic computer knowledge to manage the sharing of pictures and other content despite the user-friendly interface. Therefore, it is important to provide clear manuals and support. Also, the residents typically see a television as a passive, broadcast medium. They have to get used to the active input required to access the information they want, and understand that they have a private channel for communication. By improving the way these features of the system are communicated to users, the TV-kiosk has potential to be a useful technology for stimulating social interaction, avoiding isolation, and delivering information.

Swindell, R., Grimbeek, P., & Heffernan, J. (2011). U3A Online and Successful Aging: A Smart Way to Help Bridge the Grey Digital Divide. In *Intelligent technologies for bridging the grey digital divide*, 122-140. Hershey, PA: IGI Global.

In this chapter, the authors describe the worldwide, self-help University of the Third Age (U3A) adult education program and review the results from a pilot study on the effectiveness of U3A for improving the quality of life of older adults. As a very low cost, active aging organization, U3A Online is presented as a particularly valuable resource for older people who are isolated from their offline communities by circumstances such as illness, disability, or care giving. This was shown through a two-year email focus group with nine participants from three countries, conducted to evaluate the U3A active aging model as a guideline to examine the characteristics of these older people who are attracted to online learning. Results based on the combination of automated computer text analysis and manual text analysis methodologies suggests that the Internet was an integral

part of the lives of these participants, particularly those with serious health difficulties or profound hearing loss. The study's findings also supported a conclusion that electronic communication can reduce feelings of isolation and provide stimulating and enjoyable pastimes with the potential to assist older people in aging successfully.

Talamo, A., Giorgi, S., & Mellini, B. (2011). Designing technologies for ageing: is simplicity always a leading criterion? In *Proceedings of the 9th ACM SIGCHI Italian Chapter International Conference on Computer-Human Interaction: Facing Complexity* (pp. 33-36). ACM.

Through ethnographic research with 150 seniors (aged 65-96) in their homes in both rural and urban areas of Italy, the researchers aimed to understand whether simple design principles were necessarily the most optimal ones in creating technologies for the elderly. Some key results from this study showed that while seniors do use complex technologies on an everyday basis – for example, sewing machines – they don't necessarily use digital technologies. They were, however, open to using newer digital technologies, especially if these devices were introduced to them by someone whom they trust, and if the seniors were in specific life stages – newly widowed, for instance – where they might need a device like a cellphone for security reasons. Seniors tended to categorize and manage their technologies by arranging them in specific ways throughout the home, for example by having a TV or radio in every room in order to simulate presence. On an aesthetic level, many participants reported not adopting certain new technologies because their appearance did not fit in the rest of the household furniture. These findings suggest that rather than being designed for simplicity, technologies should be geared toward the special needs, tastes, and cognitive systems of older adults.

Theng, Y. L., Chua, P. H., & Pham, T. P. (2012, May). Wii as entertainment and socialisation aids for mental and social health of the elderly. In *Proceedings of the 2012 ACM annual conference extended abstracts on Human Factors in Computing Systems Extended Abstracts* (pp. 691-702). ACM.

Using surveys, interviews and video analysis, this pilot study examines the impact of playing Nintendo Wii games between two generations (older and younger) on the attitudes of these groups toward gaming as both entertainment and socialization. Fourteen pairs of elderly and teenaged participants played Wii games together at a seniors' centre in Singapore, and then were asked to answer a number of survey and interview questions. Findings included the fact that both groups of participants showed overall positive attitudes toward the game play, although certain more familiar games like bowling were preferred by older players. These findings imply that the commercially available games on a system like the Wii that aims to cater to a diverse market could be even more diverse, with a greater number of games that simulate familiar situations for the elderly. Moreover, this study showed that digital games is a fruitful area to develop in programs that aim to both teach elderly people about new technologies and facilitate intergenerational exchange – two activities that aid in digital inclusion for older adults.

Tinker, A. (2011). Technology and ageing. In *An Introduction to Gerontology*, ed. I.

Stuart-Hamilton, 363-388. Cambridge: Cambridge University Press.

This textbook chapter summarizes the scholarly literature on how technology can enhance and compensate in the lives of older adults. It critically examines the scope and value of technology, and its use in specific circumstances (including dementia, care, transport), special considerations (e.g., gender, ethics), and future directions and policy. The focus is on ageing, which necessitates a life-course approach. Those for whom a handwritten note or typewriter is the most modern form of communication are very different from those who use computers with ease. It is, therefore, important to look at both the current and future generations of older people, and it is useful to start by examining the scope of technology. The literature shows that while technology can help improve the quality of life of many older adults, it is insufficient to meet all of their lifestyle, health, and social needs. Yet most of the research tends to be pragmatic, and there remains a dearth of academic literature on the theoretical implications for the role of technology in the lives of the elderly.

Trinh, V. Q., Chung, G. S., & Kim, H. C. Improving the Elder's Quality of Life with Smart Television Based Services. *World of Academy of Science, Engineering and Technology, 67*, 572-575

This paper presents the development of an integrated TV-based system targeted toward seniors, offering them a number of services aimed at improving their quality of life. These services include four major networked platforms: an information service, a healthcare service, a learning service, and a social network service. Delivering these services through the TV as opposed to the computer is said to be more effective in the lives of seniors where TV is an already-integrated medium. The paper describes how such a service would be set up and presents a number of imagined scenarios for its use. No research has yet been done on the effectiveness of the system in practice, but it would be a fruitful area to explore for technology designers and researchers.

Van Biljon, J., Van Dyk, T., & Gelderblom, H. (2010). Mobile phone adoption: optimising value for older adults in a developing country. In J. Steyn (Ed.), *4th International IDIA Development Informatics Conference*, 2-4 November, Cape Town, South Africa: IDIA, Monash University.

The purpose of this paper is to investigate the suitability of the mobile phones available for older adult users in the South African context, with special attention to the issues of developing communities. The authors combine an extensive literature review on mobiles designed for the elderly with interviews conducted with seniors in South Africa on their mobile phone practices. The findings indicate that most of the mobile phones available do not address the limitations of aging; even phones designed specifically for the elderly do not meet many of the needs and expectations of older adult users. Moreover, many older people do not choose their own mobile phone, and yet salespeople and the relatives who select the phones for them are not knowledgeable about their needs. Given the specific socio-economic context of South Africa as a developing country, many older people do not have the luxury of selecting a new phone; they use a phone passed down from

younger relatives and there the issue of training becomes important. In response, the authors propose a mobile technology adoption checklist that could inform the design and selection of mobile phones for the elderly. From a practical perspective, researchers as well as organizations that design and market mobile phones for the elderly could employ the checklist for mobile phone selection.

Warburton, J., Cowan, S., & Bathgate, T. (2012). Building social capital among rural, older Australians through information and communication technologies: A review article. *Australasian Journal on Ageing*. (early view)

This review article traces the growing international literature on the adoption and use of ICTs among older populations. In particular, the review highlights issues associated with the access and adoption of ICTs among older people living in rural communities. Through the theoretical lens of social capital, the authors frame ICTs as tools for healthy ageing through social interactions. The way that ICTs can help to bridge social capital divides is applied to the specific context of rural Australia, where seniors often lack access to more extensive information and resources. In this context, ICTs can also contribute to bonding social capital through access to other forms of communication that build on local connectedness. However, rural, older people face particular challenges of access, which may exacerbate the cycle of rural social exclusion. These challenges are important to consider in Australia particularly during the rollout of the Australian National Broadband plan that seeks to address access divides in the country.

Weerakkody, V., Dwivedi, Y. K., El-Haddadeh, R., Almuwil, A., & Ghoneim, A. (2012). Conceptualizing E-Inclusion in Europe: An Explanatory Study. *Information Systems Management*, *29*(4), 305-320.

Through a literature review, policy review, and large-scale questionnaire to people in the UK, the researchers interrogate the concept of e-inclusion as a scholarly, regulatory, and popular notion of how citizens might engage with digital technologies in their public participation. The findings showed that a number of key variables affect how e-inclusion is framed and perceived: demographics, economic capacity, social capital, cultural activity, political system, and infrastructural grounding. In relation to senior populations, for whom e-inclusion has been touted as an important aspect of active ageing, the findings show that the elderly and especially elderly women and ethnic minorities are less likely to adopt new digital technologies and thus risk being excluded from digital civic life. It is important for e-inclusion policies to consider the special challenges of introducing new technologies to the elderly, since they stand to benefit from new health technologies and networked technologies that enable them to live more independent and social lifestyles.

Winstead, V., Anderson, W. A., Yost, E. A., Cotten, S. R., Warr, A., & Berkowsky, R. W. (2012). You Can Teach an Old Dog New Tricks: A Qualitative Analysis of How Residents of Senior Living Communities May Use the Web to Overcome Spatial and Social Barriers. *Journal of Applied Gerontology*. (early online)

In this article, the authors examine how the use of ICTs might help to overcome the social and spatial barriers faced by older adults in assisted living facilities. The methodology used was a multi-site qualitative study of seniors' participation in an ICT training course held at assisted living centres in the Southern United States. The training sessions focused on the use of computers for email, web search, social networking and multimedia entertainment. At each facility, the participants faced a different set of spatial or social barriers particular to the setting – at centres with little social interaction, participants seemed most interested in learning how to use social applications; at centres that were more physically isolated, participants seemed more interested in learning about transportation options and excursions outside of the facility. These results suggest that ICTs can have significant benefits for elderly residents of assisted living facilities, where their uses of ICT are tailored to specific offline needs.

Zhou, J., Su, X., Ylianttila, M., & Riekki, J. (2012). Exploring pervasive service computing opportunities for pursuing successful ageing. In *Grid and Pervasive Computing Workshops* (pp. 73-82). Berlin: Springer.

This chapter describes Pervasive Service Computing for the elderly, an approach that applies service composition and pervasive computing into assisting seniors in their daily activities. Combining the advantages of context-awareness and service-oriented computing, Pervasive Service Computing is designed to improve seniors' quality of life, pursuant to the global policy goals of active ageing. In proposing a Pervasive Service Computing for Elderly (PSC4E) framework, the authors argue that this system will provide being-, becoming-, and belonging-based services. They contextualize the service in light of trends toward an ageing population, an elderly service provisioning model, and related studies.

Part B: Overview of Multimedia Projects

In addition to some of the projects described in the annotated bibliography, the following initiatives represent some recent attempts to integrate seniors into innovative media and communication development in Canada and abroad.

1) Canada

Project Name: Atwater Library and Computer Centre Workshops for Seniors
Website: http://www.atwaterlibrary.ca/computer-services/workshops-for-seniors
Location: Montreal
Effective Dates: Ongoing
Director: Eric Craven, Project Coordinator for the Digital Literacy Project: http://digital-literacy.atwaterlibrary.ca/693/
Organization: Atwater Library and Computer Centre – western downtown Montreal's community library, digital learning centre and community meeting place. The library is a private, non-profit institution, with a history dating back to 1828. This workshop series is supported financially by the Government of Quebec.
Description: Free computer-based workshops for seniors with rotating topics; in January 2013, the library offers a Workshop for Seniors on Online Government Services – topics include getting information on health services, housing, retirement income and rights through the Internet.
Contact: Eric Craven at 514-935-7344 ext. 207 or dlp@atwaterlibrary.ca

Project Name: Before They Were Grandparents
Website: http://www.beforetheyweregrandparents.com/
Location: Vancouver
Effective Dates: Ongoing
Director: Chris Clark, Area Director, Vancouver Office
Organization: Bayshore Home Health Vancouver – Bayshore Home Health offers a wide range of home care services that include nursing, personal care, home support and companionship to the residents of Vancouver and surrounding area, allowing them to continue to live in their own homes with dignity and independence.
Description: Before They Were Grandparents is an online intergenerational storytelling project for people to share treasured stories about their loved ones. Anyone is welcome to email in stories, photos, quotes, or videos, and they will be added to the website. There are also a series of live events that invite seniors to tell their stories for local audiences.
Contact: hello@villageandco.ca; Phone: (604) 873-2545, Email: cclark@bayshore.ca

Project Name: Computing for Seniors
Website: http://www.peiscf.com/Computing_for_Seniors_Program.html
Location: Prince Edward Island
Effective Dates: 2010-present

Director: Linda Jean Nicholson
Organization: PEI Senior Citizens Federation – Initially, this program was funded by a New Horizons grant. When the grant was exhausted, the PEI Government offered to fund the program for another year. The program has received national recognition by HRSDC.
Description: Computing for Seniors offers free courses to Island seniors who have little or no computer experience. Three levels of courses are available: Basic (for seniors with no computer experience), Basic Plus (for seniors with some computer skills, but limited knowledge), and Basic Plus2 (for seniors who desire a better understanding of computer basics, including email and the Internet). One or two morning "mini-courses" are also available to seniors who have gained basic skills through our program. Mini-courses are offered in digital photography, Facebook, Skype, and genealogy. To date, the PEI Senior Citizens' Federation has taught 57 courses to over 750 Island seniors.
Contact: PEI Senior Citizens' Federation office at 902-368-9008 or toll free 1-877-368-9008

Project Name: Connecting Older Adults: Seniors' Computer Literacy
Website: http://www.saskatoonlibrary.ca/node/505
Location: Greater Saskatoon Area
Effective Dates: 2010-2011
Director: Gwen Schmidt, Outreach Services
Organization: Saskatoon Public Library – This project was in partnership with READ Saskatoon, the Community University Institute for Social Research, and the Saskatoon Community Clinic, and had funding of $24,146 from the Government of Canada through the New Horizons for Seniors Program.
Description: This project was designed to give seniors the digital tools they want and need, so that they can stay connected with family, friends, and community. A Senior Peer Trainer and an Assistant took a mobile computer lab (laptops and a projector in a portable box) out to Saskatoon seniors' residences and seniors' centres in 2011 to teach hands-on computer skills to groups. Using wireless Internet, the training focused on computer basics, and we were able to train five seniors at a time with the mobile lab.
Contact: Gwen Schmidt in Outreach Services at 306.975.7606 or e-mail g.schmidt@saskatoonlibrary.ca

Project Name: ETAG Free Lifelong Learning Workshops
Website: http://etagonline.ca/lllw/
Location: Across Ontario
Effective Dates: Throughout 2013
Director: Chris Blint, chris@etagonline.ca
Organization: Elder Technology Awareness Group (ETAG) specializes in providing technology education and support to adults 55+. With free technology assistance programs and workshops, and a volunteer team, ETAG strives to eliminate the digital divide between generations. ETAG is a non-profit organization supported by the Ontario Trillium Foundation.
Description: Workshops are designed with the technology needs and interests of adults 55+ in mind. Each one consists of two elements; the first is a technology discussion component, similar to a university lecture that focuses on what technologies are available

and how seniors can benefit from using them. The second is a hands-on component, which puts digital devices in the hands of participants. Providing this interactive component allows participants to see and experience the benefits of these tools in daily life. They can make better decisions about what technology to buy and how easy it can be to use with some support and guidance.
Contact: http://etagonline.ca/contact-us/

Project Name: ETAG Technology Enabled Living
Website: http://etagonline.ca/tel/
Location: Across Ontario
Effective Dates: Throughout 2013
Director: Chris Blint, chris@etagonline.ca
Organization: Elder Technology Awareness Group (ETAG) specializes in providing technology education and support to adults 55+. With free technology assistance programs and workshops, and a volunteer team, ETAG strives to eliminate the digital divide between generations. ETAG is a non-profit organization supported by the Ontario Trillium Foundation.
Description: ETAG's Technology Enabled Living (TEL) program is specialized for adults (55+) living in senior communities, such as retirement homes and long term care centres. As a part of a regular activities program, ETAG supplies all the equipment and instructions needed to help any small group learn how to use technology. The program is intimate, simple, and interactive. Equipped with a mobile WiFi computer lab, ETAG's tech tutors consider the needs and interests of each senior participant individually, creating a learning environment that accommodates all skill levels. We help beginners learn the fundamentals of computer and Internet use, while having the expertise to assist more tech savvy seniors fix problems with their laptops or configure new devices, such as an iPad or e-reader. Although ETAG provides all the technology to conduct each workshop, we encourage participants to bring their own equipment when possible, so they can learn on their own device and customize it just for them. If it runs on a battery or plugs into the wall, ETAG can teach a curious senior how to use it effectively and confidently. Our highly qualified technology tutors are trained professionals and can support individuals with dementia, mobility/dexterity issues, and other common disabilities.
Contact: http://etagonline.ca/contact-us/ or phone Chris Blint: 416-844-1471

Project Name: ETAG Volunteer Technology Assistance Program
Website: http://etagonline.ca/vtap/
Location: 905 Region of the Greater Toronto Area – Oakville, Brampton, Mississauga, and Malton
Effective Dates: Throughout 2013
Director: Chris Blint, chris@etagonline.ca
Organization: Elder Technology Awareness Group (ETAG) specializes in providing technology education and support to adults 55+. With free technology assistance programs and workshops, and a volunteer team, ETAG strives to eliminate the digital divide between generations. ETAG is a non-profit organization supported by the Ontario

Trillium Foundation. This program is also supported by the Centre for Education and Training (Greater Toronto Area).

Description: ETAG's hands-on Volunteer Technology Assistance Program (VTAP) is geared specifically towards adults 55+ and is free of charge. Whether it's controlling the mouse and learning the basics, setting up an e-mail account, troubleshooting video problems on Skype, or buying a song from iTunes, the list of potential technology based questions is endless. With simple instructions and guidance, ETAG helps participants develop the skills and confidence needed to use today's life enhancing technologies. ETAG's patient 'technology tutor' team can answer just about any technology based question and support the achievement of personal technology use goals. Working in collaboration with community partners, ETAG's one-to-one technology assistance program is available weekly in multiple technology centres throughout the Halton and Peel regions. The program is structured to accommodate all learners; from beginners needing help with the basics to more advanced users looking to expand their knowledge. One unique characteristic of the program is that participants can get help with all types of technology, from personal laptops and tablets, to cell phones, MP3 players and digital cameras. With WiFi available at all our locations, participants are encouraged to bring in their own devices.

Contact: http://etagonline.ca/contact-us/

Project Name: Healthy Seniors on the 'Net Computer Training Project
Website: http://www.saskatoonlibrary.ca/node/1100
Location: Greater Saskatoon Area
Effective Dates: 2012-2013
Director: Gwen Schmidt, Outreach Services
Organization: Saskatoon Public Library – The Library, in partnership with Older Adult Wellness (Public Health Services), Saskatoon Housing Authority, Wheatland Regional Library, and Saskatoon health Region Medical Library, has received a Community Health Grant of $18,824 from the Saskatoon Health Region.
Description: This project is designed to provide seniors with training in how to find and evaluate heath information on the Internet. Project staff will take the Library's mobile lab (six computers, a projector, and wireless Internet) to Saskatoon Housing Authority buildings and to Wheatland Regional Libraries in four neighboring communities. The program will train seniors where they live and gather. Training will include a mix of basic computer skills, as well as health information discovery and evaluation techniques. Project staff will also educate about scams and fraud on the Internet to give seniors an understanding of risks online and to prevent elder abuse. Health professionals will help to develop health-related training materials and name key resources on health topics of interest to seniors. Seniors with enhanced computer skills will not only be able to find health information online, they will also be able to stay more connected with family and friends and more actively engaged in their community. It is anticipated that this project will provide health information training to about 630 seniors through 126 training sessions. The program fits nicely with one of the Library's core values: to provide access to information for all people, regardless of age, interest or ability and to provide people with the information tools they need.
Contact: Outreach Services at 306-975-7606

Project Name: Seniors Safety Education and Empowerment Program
Website: http://www.onpea.org/english/trainingtools/aipn-videos.html;
http://www.brampton.ca/EN/RESIDENTS/FIRE-EMERGENCY-SERVICES/FIRE-SAFETY/Pages/TakeCarebeAware1.aspx
Location: Peel Region, Ontario
Effective Dates: 2011
Director: Dianne Rende
Organization: Adult Injury Prevention Network (AIPN) – funded by a Government of Canada New Horizons for Seniors Program (NHSP) grant.
Description: This project educated a large number of seniors, their families and caregivers on steps they can take to reduce risks through workshops and an educational DVD. Nearly 100 seniors were involved with the planning, production and distribution of the DVD so that it would be a relevant, meaningful and useful tool for other seniors. The DVD features scenarios acted out by seniors and experts. It includes information for preventing financial abuse, falls, fires, burns, first aid information and tips for moving in with family. Through workshops, seniors were able to share, to socialize and to learn how to be safe and healthy. The project provided seniors with the opportunity to work with new people and make new friends, which many appreciated. Thanks to the project and the seniors involved, over 900 copies of the DVD have been distributed to seniors groups and agencies. This project meets the NHSP objectives of encouraging seniors to contribute their skills, experience and wisdom in support of social well-being in their communities; and of promoting the ongoing involvement of seniors in their communities to reduce their risk of social isolation.

Project Name: Well-Tuned™: Music Players for Health Program
Website: http://musictherapy.imnf.org/services/category/outpatient-well-tuned-music-players-for-health-program
Location: New Brunswick and Nova Scotia
Effective Dates: 2012
Organization: Institute for Music and Neurologic Function, and Music and Memory – the IMNF's groundbreaking and internationally recognized programs use music therapy to assist the "awakening and healing" of individuals with a wide range of neurological conditions including strokes, trauma, dementia, Alzheimer's and Parkinson's diseases. Music & Memory is a non-profit organization that brings personalized music into the lives of the elderly or infirm through digital music technology, vastly improving quality of life.
Description: The licensed music therapists and other specialists at the IMNF create customized playlists incorporating input from patients and loved ones. These playlists are loaded onto MP3 players/iPods so patients can connect with music they love, improving their overall health and well-being. Playlists can be created for individuals with Alzheimer's disease and other forms of dementia, Parkinson's disease and depression or anxiety. Research demonstrates that patients who are connected with their favorite music are less agitated and have a better mood.
Contact: 718-519-5840 or e-mail imnf@centerlight.org

2) USA

Project Name: Silver E-Read Project
Website: http://silvereread.wordpress.com/
Location: North Carolina
Effective Dates: 2011
Director: Jackie Cornette
Organization: Western Watauga Branch Library
Description: The program lends out E-Readers, such as Kindles, while delivering books to the homebound elderly. Some of the large print books were so heavy the elderly couldn't lift them. The E-Readers were lighter and also had the advantage of being able to download more books. In retirement homes, for example, giving residents e-readers is easier than having to get residents in their room to come down and check out a book. With the e-readers, the residents don't have to worry about checking out a book because the stories are downloaded onto the e-reader.
Contact: Amy Love at silvereread@gmail.com

Project Name: 7-128 Software
Website: http://www.7128.com/
Location: greater Boston area
Effective Dates: 2007-present
Director: Eleanor Robinson, Chief Operating Officer
Organization: 7-128 Software is a game development company started by seven seniors who are longtime friends. Their love of playing tabletop games like Dungeons and Dragons grew into a game development company when they felt that typical video games did not appeal to them.
Description: 7-128 Software makes video games that are entertaining, easy to understand, and reasonably priced. By making our games accessible to gamers with special needs as well as those less challenged, we make them easier to use for all. Many 7-128 games have special features for seniors, the hearing impaired and the vision impaired – voice activation and text enlargement, for example. The level of difficulty is flexible, and each game can be set to easy mode. Many of the games have a sort of throttle that lets players slow them down. That's to appeal to seniors and people with poor motor skills and cognitive problems.
Contact: http://www.7128.com/ContactForm.html

Project Name: SF Connected
Website: http://sfgov3.org/index.aspx?page=3167
Location: San Francisco
Effective Dates: ongoing
Organization: San Francisco Government: Department of Technology & Department of Aging and Adult Services – funded by the Broadband Technology Opportunities Program (BTOP), a Federal program to end the digital divide, by expanding access to and encouraging use of broadband high speed internet services.
Description: San Francisco's BTOP initiative seeks to increase broadband adoption by teaching computer and internet skills and demonstrating the value of broadband based

technologies, such as social media and video communication. The program focuses on the City's seniors and adults with disabilities because they can most benefit from expanded access. The Dept of Aging and Adult Services is working with the City's Department of Technology and a variety of community partners to bring broadband training and access to seniors and adults with disabilities. Free Programs and Classes are offered in 5 languages: English, Spanish, Russian, Chinese, and Vietnamese. A series of Basic and Intermediate Skills Computer Classes will help to familiarize students with computer essentials such as: functions and operations of a computer, learning to set up an email account, navigating the internet, and learning to take precautionary measures associated with online activity. Introductory classes to Facebook and Skype are also offered in an attempt to reduce social isolation and easily connect with friends and family, common challenges amongst Seniors and Adults with Disabilities. Classes will also be offered to help students search for employment opportunities and manage finances online, further enhancing online capabilities of participants.
Contact: (415) 355-3555

3) Europe

Project Name: Gentle user interfaces for elderly people (GUIDE)
Website: http://www.guide-project.eu/
Location: EU
Effective Dates: 2010-present
Coordinator: Christoph Jung, Fraunhofer - Institut für Graphische Datenverarbeitung IGD
Organization: The research project is partly funded by the European Commission under the Seventh (FP7: 2007-2013) Framework Programme for Research and Technological Development.
Description: GUIDE is creating a software framework and design tools which allows developers to efficiently integrate accessibility and personalization features into their applications, minimizing intervention with existing development process and tools. GUIDE provides automatic integration and adaptation of various legacy and next-generation user interface technologies, such as gesture interaction, voice control, avatars, second screen multi-touch devices and gyroscopic remote controls. GUIDE-enabled applications and services can automatically adapt their user interface to the specific impairments and preferences of elderly users. GUIDE puts a dedicated focus on the emerging Web & TV platforms and services (Connected TVs, Set-Top Boxes, etc.). These platforms have the potential to become the main media terminals in the users' homes, due to their convenience and wide acceptance. GUIDE develops a set of references applications (home automation, video conferencing, tele-learning, media access) that can help elderly citizens to simplify their daily life, stay connected in their social network and enhance their understanding of the world.
Contact: christoph.jung@igd.fraunhofer.de

Project Name: ElderGames
Website: http://www.eldergames.eu/

Location: EU
Effective Dates: 2006-2009
Director: Malena Fabregat
Organization: AIJU Instituto Technologico (Spain). Project funded by the European Commission.
Description: The key objective of ElderGames project is to develop IST-based games using advanced visualization and interaction interfaces with high preventive, therapeutic value that will allow elderly people to enjoy new ways of leisure and entertainment while improving cognitive, functional and social skills. The main goals will also be to:
1. Promote the e-inclusion of elderly people by means of play activity,
2. Contribute to an overall improvement of the abilities impacting Quality of Life through play, with particular emphasis on cognitive skills.
3. Support communication between elderly citizens and their families across Europe by means of play proposals which will allow them to share their experiences by means of an alternative-augmentative communication system capable of overcoming linguistic barriers and,
4. Provide experts specializing in elderly care and supervision with an innovative play application to be used in their daily professional work able to monitor variables related to quality of life, specially cognitive skills.

ElderGames will also be the first play platform able to allow an early detection of cognitive disease or social unease, and so, implement the advisable response to them. Thus, since ElderGames has been conceived as a tool for early diagnosis, no elderly participants suffering severe cognitive impairment will take part in the project.
Contact: eldergames@aiju.info

Project Name: Social Media for All elderly persons (SoMedAll)
Website: http://somedall.vtt.fi/
Location: Finland, Italy, Slovenia
Effective Dates: 2010-present
Director: Tuula Petäkoski-Hult, VTT Personal health systems (project manager)
Organization: VTT- Technical Research Centre of Finland
Description: Our objective is to make social media usable for elderly people with advanced and easy-to-use content creation, management and assistive user interaction technologies. We will build social media applications and activities around the content; bringing similar fun and entertaining social experiences to the elderly people like the youth is enjoying today in Internet. We will also provide easy ways to create, store and share knowledge, experiences and memories, so that seniors can experience easy and fast communication, social interaction and creation of social networks with different people, such as family and friends, former colleagues and similar minded people and home care. In developing tools that support co-experience and co-presence, we aim to provide easy, adaptable and guided user interfaces for creating, managing and sharing content taking into account the mental and physical capabilities of the elderly people. The service can be used with a user's own language and supports multicultural communication.
Contact: tuula.petakoski-hult@vtt.fi

Project Name: VALUE AGEING Incorporating European Fundamental Values Into ICT for Ageing: A vital political, ethical, technological, and industrial challenge
Website: http://www.valueageing.eu/
Location: EU
Effective Dates: 2010-2014
Director: Paul de Hert, Law, Science, Technology & Society Studies (LSTS), Vrije Universiteit Brussel
Organization: Supported by a 48-month Marie Curie Industry-Academia Partnerships and Pathways grant, (VALUE-AGEING) is funded within the scope of the Seventh Framework Programme (FP7) of the European Commission.
Description: Technology is not merely a means to an end; technical standards define major portions of social environments, human activities, life patterns, and so on. Values and policies are "frozen" in technology solutions. Embedding ethics and social considerations in technology implies understanding how technology is impacting society, what values are communicated to users by a technology or technological application, how technology choices are made at various decision making levels, and how different values can be built in technology by selecting different technological solutions and design options. VALUE AGEING will create the opportune framework for researcher mobility and knowledge sharing through non commercial research centres and industry on the way to better address social, ethical and value implications of ICT for Ageing
Contact: Dimitris Dimitriou dimitris.dimitriou@cssc.eu; info@valueageing.eu

Project Name: YOUng and SENiors together online with Eldy (YOUSEN)
Website: http://www.eldy.eu/progetti/eldys-intergenerational-projects/
Location: Italy
Effective Dates: 2011-present
Organization: Eldy – a nonprofit organization which promotes social inclusion**,** active ageing**,** health**,** intergenerational solidarity with people aged 50+ through the use of technology. Based in Vicenza, Eldy has built the Eldy platform, a free software package to help senior citizens to use the computer and access the Internet (downloadable from www.eldy.eu).
Description: Eldy launched the intergenerational project in 2011 that involved over 20,000 people throughout Italy: students from both secondary and primary schools, teachers, seniors and Public Administrators. The students volunteered as "Eldy facilitators" to teach seniors the ABCs of computer use: how to send an e-mail, how to surf the Internet, how to use chat to meet new people and keep in touch with their family, how to videocall, how to manage documents and digital photos. The innovative approach of the Eldy platform included a yearlong e-inclusion experience, the presence of a wide animated community of 400,000 users and the involvement of volunteers. The success of the "Giovani e meno giovani in rete con Eldy" (Young and less young on the net with Eldy) project resulted in promoting both adult digital literacy and solidarity between generations. The software Eldy, which represented the key element of the project, not only simplified teaching and learning, but also enhanced interaction and solidarity between young and elderly people, in line with the main principles of the European year of Active Ageing and solidarity between generations.
Contact: fax (+39) 178.22.67.340

4) Latin America

Project Name: JCI Active Citizen Framework
Website: http://www.jci.cc/guests/e/18856/JCI-Brazil-Creates-Social-Seniors
Location: Brazil
Effective Dates: 2012
Director: Daniel Kawachi, 2012 JCI Brazil-Japan Local President
Organization: Junior Chamber International (JCI) – JCI is a global fellowship of over 200,000 young professionals in over 115 countries. Our members are working to change the world, while in the process transforming their lives and careers. Through strong partnerships ranging from local businesses to international organizations like the United Nations, JCI provides development opportunities that empower young people to create positive change within their communities. JCI Brazil-Japan spends about US $600 per year to teach these classes and this funding is maintained by the strong partnerships cultivated throughout the planning process. Partners on this project collaborate financially and physically by providing chairs, room space, refreshments, computers and teaching supplies to conduct successful classes in an environment that best facilitates learning.
Description: JCI members partnered with computer schools and Internet cafes that allowed them to use their facilities and equipment to hold basic computer skills and Internet classes for the elderly. During these first classes, course books and teaching methodologies were tested and improved to meet the specific needs of the audience. These materials were also updated from class to class with feedback from the students. Once the course book and content were finalized, JCI Brazil-Japan built a new partnership with the Paulo Kobayashi Institute (IPK), a fundraising organization, to expand the program. IPK consists of private companies that will donate and maintain facilities for the computer-skill classes. They will also assist organizations interested in delivering the courses by providing space and other volunteers. JCI Brazil-Japan is pleased with the overwhelming positive response from their elderly students about the computer skills learned, as well as the positive feeling gained of being more integrated into society. Many students feel a boost in their self-esteem from these classes due to their new skills and new social circles.
Contact: news@jci.cc