Why are older people "e-excluded"?
An increase of 46% of EU-27 households with home Internet access between 2004 and 2008 suggests that European society is speeding along on the information super highway. At the same time, there are clearly groups of people left in the dust. Research shows that those left behind in the “information society” are the usual suspects at risk of social exclusion; and amongst them is a staggering number of older people. Why are older people excluded from the mainstream information society? To answer this question, we turn to the “6 c’s” of e-inclusion: cost, connectivity, capability, content, confidence and continuity.

While the cost of communications has decreased in real terms since 2005, the cost of installing and maintaining an ICT infrastructure in the home is a considerable investment for older people, who are mainly on fixed incomes. In particular, ICT equipment and services require frequent updates which can deter price-sensitive elderly from making the initial move.

The lion’s share (60%) of EU-27’s households is connected to the Internet however connectivity is still a significant barrier for older people. Only 17% of older people in EU-27 access the internet at least once a week, yet ICT are rapidly becoming as necessary a part of daily life as electricity and indoor plumbing. This mismatch between the levels of connectivity and the modern developments in common communication channels, enhancing online access to information, and connecting to e-government services cries for more targeted public support for older people’s access to ICT services.

The ageing process brings with it an increased risk of illness and disabilities – including visual, dexterity, and memory challenges - which can hamper the use of standard ICT equipment. Older people’s capability is related to the accessibility of ICT. Some initiatives exist where the challenges of ageing are taken into account. For instance MonAMI solutions to accessibility of ICT include the “Videotelephony on TV” service which facilitates meeting and conversing through using a standard television and set-top box. Older people can see and speak to their family and friends without the challenges of manipulating a keypad or remembering telephone numbers.

One of the most cited reasons that older people give for not using ICT is “no interest”. Part of this lack of interest can be explained by lack of exposure or a masked lack of confidence. However some blame for the paucity of relevant content must be shared by developers and providers of ICT services: few ICT applications, outputs and related marketing are specifically geared towards the interests, needs and capabilities of older people. Many sources also report on the generalised anxiety and technophobia which overwhelm many older people when considering ICT solutions. This lack of self-confidence is often specific to the computer domain, which further supports findings that ICT content carries a generational bias.

“MonAMI solutions to accessibility of ICT include the “Videotelephony on TV” service which facilitates meeting and conversing through using a standard television and set-top box.”
Furthermore, those with low levels of self-efficacy are less likely to adopt ICT in the future. The MonAMI project aims to tackle the content and confidence issues with services such as “IP-TV with Accessible Games”. With a television, set-top-box and kinetic console, older people can play active, age-relevant games remotely with their family and friends. These games are set to stimulate physical activity as well as socialisation between peers and loved-ones, both important components to improving self-esteem and quality of life.

Finally, continuity refers to the degree to which ICT is used in everyday life. While European society is increasingly dependent on ICT, only 25% of EU-27’s retired and economically inactive population use the internet regularly compared to 56% of the population as a whole. This demonstrates that there is clear severance of ICT from the daily lives of the majority of older people. With an ageing population, the intuitive business case for investment in relevant ICT for the “grey market” appears robust. However, the behaviour of the commercial sector suggests that current incentives exist primarily in producing for the younger, economically productive masses. It would therefore seem that some government intervention in facilitating the e-inclusion of older people from the commercial perspective may be needed.

In brief, there are exciting opportunities for older people in the information society. More recently there has been considerable positive action within the EU.

The Commission launched an action plan on ageing well in the information society. The action plan has not only the objectives of enabling a better quality of life for older people with significant cost-savings in health and social care, but also aims to help create a strong industrial basis in Europe for ICT and ageing.

While e-inclusion appears out of reach for many, these misperceptions can be rectified with a sustained, tailored approach to ICT training for older people. However, like for any service, the approach requires both the cooperation and the willingness of the various stakeholders, including older people, government and commercial agents. The Commission calls upon all stakeholders in civil society, authorities and businesses to act in partnership to achieve the objectives for ageing well in the information society. Member States and the European Parliament are also invited to actively support and implement the actions. This would strengthen the rights and opportunities of older people in the information society, and enable the full participation of all in Europe’s economy and society.

Text written by Jacqueline Damant, Paul Freddolino, Maggie Ellis, Martin Knapp, and Eve Milletton-Kelly of the Personal Social Services Research Unit (PSSRU) at the London School of Economics, 2009.

PSSRU’s role in the MonAMI project is to evaluate the user benefits of MonAMI services and to study the exploitation potential of these services on the European market.

Short facts about The London School of Economics:

The Personal Social Services Research Unit (PSSRU) is located at three universities: the London School of Economics (LSE), the University of Manchester and the University of Kent. The PSSRU has been conducting high quality research on social and health care to inform and influence policy, practice and theory – in the UK and in a number of other countries – for more than 30 years. Much of the Unit’s work focuses on older people. Current research programmes in the Unit are assessment of needs, evaluation of service and therapeutic interventions, improved measurement of costs and outcomes, commissioning arrangements employed by local authorities and primary care trusts, care home provider motivations and market behaviour, long-term care cost projections, needs-based planning, assessment processes, care management, and the introduction of direct payments and individual budgets.

www.lse.ac.uk/
The summer of 2003 was one of the hottest on record in France when 14,802 people died, many of them were elderly and disabled people.

**The heat victims had never experienced** such extreme heat before and didn’t know what to do, or were too impaired to make necessary adaptations themselves. Most of the elderly people did not require constant medical care and were living alone. In the MonAMI Feasability and Usability test centre in Orléans, south of Paris, a service has been tested that can help in just such situations.

**It’s called Heatwave and Great Cold** and has been integrated in a service package called AMISURE as the service TempSURE. The MonAMI service package is being developed to support elderly and disabled persons to help them live more independently in their own homes. TempSURE has sensors that monitor the ambient temperature in the home and is programmed to send a notification when the temperature is in a critical range; either too hot or too cold. In the centre in Orléans, TempSURE sends notifications to Europ Assistance France call centre where appropriate actions are taken to alleviate the situation.

**The service package AMISURE** includes different services for safety and security notifications at home. AMISURE include services similar to TempSURE to control doors, windows, shutters, light and humidity. It also includes smoke and fall alarms. These services are developed to support elderly and disabled people living at home and their carers and/or relatives. A service like TempSURE, sending a notification when something is different from normal, will not only be beneficial for the end user but also for his or hers relatives, giving them updated information and thereby peace of mind.
"EDF is involved in the social problems of their customers"

What is EDF’s interest in the MonAMI project?
- EDF is very involved in the social problems of their customers, says Denis Bonneau. We want to identify and study new services that can make their lives easier. Services like home automation and alarm systems that can support elderly and disabled people to live more comfortably in their own home as long as possible. We collaborate with France Telecom and Europ Assistance France in developing and testing low cost software and hardware solutions, says Mr Bonneau.

What other services have been tested in the French centre?
Four other MonAMI services have been tested at the centre in Orléans:

- **A Home control service** allowing the user to turn on and off lights, open and close doors and to control electrical equipment remotely.
- **A mail service** that allows the user to answer e-mails with an audio message.
- **A communication service** that can increase social interaction by allowing the user to use a TV screen when conversing on the phone with others.
- **An activity monitoring service** that sends a notification to a call centre when a user does not carry out his/her daily routine of opening bedroom shutters which may be an indication that he/she is in a critical situation.

What are the social objectives of MonAMI?
The MonAMI project is testing new services using new technologies, such as OSGi, UCH and Zigbee, that have a real value for users. MonAMI is validating the safety and reliability of the services as well as their acceptance by elderly and disabled people, says Anne-Marie Decolasse.

Short facts about Electricité de France:
The EDF Group is the leader in the French and British electricity markets and has solid positions in Germany and Italy. The Group has 38.1 million customers in Europe and the world’s premier nuclear generation fleet. EDF has a sound business model, evenly balanced between regulated and deregulated activities. Given its R&D capability, its track record and expertise in nuclear generation and renewable energy, together with its energy eco-efficiency offers, EDF offers competitive solutions that reconcile sustainable economic development. EDF R&D has 2000 employees, 79% are researchers and project managers, 30% women, 150 are teaching researchers and 300 PHD.

www.edf.fr
Tecnodiscap-Caita research group, at the University of Zaragoza in Spain, is working for the MonAMI project in association with local end user entities, and local government and administrations.

As a result of this cooperation, Tecnodiscap-Caita have established a network including end user associations, who represent the needs and interests of end users. They have specified what services are valid and under which criteria they are considered to be appropriate. They also use the network to interact with public institutions, such as the Government of Aragón, which are able to stimulate the provision of services. These institutions are those who set the criteria for legal validation and efficiency, necessary for the services under Spanish State law. Tecnodiscap works together with the Government of Aragón to make sure that these criteria are met.

The MonAMI project has been rewarded with three major benefits from this cooperation: 1. The development of services identified as necessary by end users entities. 2. The designation of the Spanish Feasability and Usability Centre at the Shelter home Residencia Romareda from the Government of Aragon, including the designation by the city council of two apartments to be used as Bio-Labs in Zaragoza. 3. A wider spread of information about the real benefits the project can provide society with.

In December 2009, the MonAMI Project was given an award by DFA Foundation (Physical Disable persons in Aragon) for its dedication to technological innovation to make independent living possible for elderly people and persons with disabilities.
What is the University of Zaragoza's interest in the MonAMI project?

- The project allows promoting the main research lines for Tecnodiscap-Caita, namely applied technologies to elderly and disabled persons, says Jorge Falcó, Ph.D, at the University of Zaragoza. He continues:
- More specifically, research in localization and recognition of people, temporal orientation, adapted home control, universal leisure and communication, and rehabilitation.

What services have been developed in the Spanish centre?

- As a result of the interdisciplinary work of the group with end users associations, the necessity of the provision of following services were pointed out as those which would help not only to increase a better quality of life for end users, but also to ease the work of the carers, says Dr Falcó. Some of the services tested in Spain are:
  - **AmiPAL** - time management. First developed by Tecnodiscap-Caita to aid to the specific need of end users to orientate them-selves in time.
  - **AmiSURE - FallSURE.** Appointed to be a necessity when working with Fundation Rey Ardid and special education school Alborada, which later helped validate the devices and service protocols.
  - **AmiPLAY** – with the help of Shelter home Casa Amparo, Tecnodiscap-Caita was able to develop this application for leisure.

What are the social objectives of MonAMI?

- Thru the project we can carry out demonstrations of our research with real end users. We want to spread the results of this to a wide range of stakeholders to make users and the public aware of the potential benefits of information technology services for elderly and disabled people, using MonAMI as an illustration, says Dr Falcó.
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