

# **‘Ambient Assisted Living: Towards Solving the Aging Society Challenge?’**

**Dieter Rombach**  
Fraunhofer IESE  
Germany

Ambient technologies have provided tools for customizable support of humans. One important application area is in the health sector. Elderly people are frequently confronted with the choice of moving to a retirement home or accepting 24 hour care at home. In many cases, only small physical or mental deficiencies are the cause. In these cases, ambient assisted living systems can offer a third alternative - continued self-determined living at home.

The Fraunhofer Gesellschaft focuses on research and development in ambient assisted living. First prototype solutions are around the corner. The challenges include acceptance by elderly people, robustness, and cost efficiency. This presentation will highlight the ongoing research and development activities, provide a vision for the future, and outline some of the societal and political challenges.

## **'Interfaces for All'**

**António Câmara**

New University of Lisbon and UTAustin-Portugal Program  
PT

A typology of interactions between humans and machines is presented. Three movies are used to visualize interfaces that may be used by all users: Jetsons, Minority Report and Matilda. The underlying work to develop such interfaces, from information architecture and interaction design standpoints, is presented. Projects including a life facilitator, an interactive magic book, and collective interaction with a billboard are discussed for illustrative purposes.

# **‘Is there a Tech-fix to Social Exclusion?: Reviewing the evidence from a decade of research on Digital Media, Gender & related cases’**

**Paschal Preston**  
Dublin University  
IE

*“....There is a need to better understand how new ICTs can accelerate bridging the digital divide in the future, by involving more people with fewer qualifications in the IKS, namely by promoting the use of innovative applications and devices, and how the regular use of ICTs can provide a framework for qualifying these citizens on a regular basis”*

Several recent research suggests points to a ‘correlation between ICTs usage and the educational and social/economical conditions of citizens and families’ which condition the type of their activities, hobbies and behavior (Call document).

But there is a much greater deal of debate and uncertainty when it comes to the question of the precise nature of this relationship.

This paper will seek to interrogate key aspects of the relationship between new ICTs and new/digital media on the one hand, and socio-economic exclusion on the other. It interrogates the question of whether or not there is [or can be] a ‘tech-fix’ strategy that is capable of address addressing social exclusions such as gender aspects of the digital divide. The paper will address certain key conceptual issues, including how different definitions of new ICT may yield highly significant differences in exclusion patterns (eg. between technology systems and key applications such as new/digital media products). The discussion and analysis will draw on empirical findings from a series of European<sup>1</sup> and national<sup>2</sup> research studies conducted over the past decade. These largely comprise user-centred and consumption orientated studies, in most of which the author has been one of the principal investigators.

These include : .i) SIGIS project: ‘Strategies for Inclusion : Gender in the European Information Society’. (2001-2004) .ii) EMTEL-2 : The European

---

<sup>1</sup> These include : .i) SIGIS project: ‘Strategies for Inclusion : Gender in the European Information Society’. (2001-2004) .ii) EMTEL-2 : The European Media Technology & Everyday Life Network (2000-2003) .iii) EKB-SEIS : Mapping the European Knowledge Base of Socio-Economic Impact Studies of IST (2003); .iv) Information and Citizenship in Europe : Implications of new ICTs (1995-1996) ; .v) SLiM : Social Learning in Multimedia (1996-1999)

<sup>2</sup> ‘Young Persons and Mobile Communications in Ireland’ (2006)

A study of the patterns and forms of mobile communication amongst young persons. with focus on social group differences and space (urban and rural settings) in contemporary Ireland.

Media Technology & Everyday Life Network (2000-2003) .iii) EKB-SEIS :  
Mapping the European Knowledge Base of Socio-Economic Impact Studies of  
IST (2003); .iv) Information and Citizenship in Europe : Implications of new  
ICTs (1995-1996) ; .v)  
SLiM : Social Learning in Multimedia (1996-1999)

## **'Towards the Co-Construction of Web 2.0 with Older Users?'**

**Brian Loader**

University of York, Department of Sociology  
UK

The emergence of Web 2.0 and the attendant discussions have largely focused upon its adoption by young people. Yet the potential richness of its interaction and creativity and sociality offers the prospect of engaging older people as users in ways which may be far less prohibitive and more attractive than previous versions of online connectivity. The exclusion of older people from fully participating in the online world due to issues of accessibility, content relevance and exclusionary design processes has been well documented. Such barriers will not diminish as a consequence of technological developments alone. However, a number of factors which may influence techno-social affordances will be considered in this paper. These include the need to move away from a homogeneous classification of older people. Many older people are resource rich in terms of time and interest. The desire of governments and commercial sector to increase up-take by older people either to implement e-government strategies or respond to market opportunities. Moreover, the increasing mobility of both large sections of older people and their offspring provides a further driver. This paper concludes with a number of research and policy questions related to the potential realisation of expanding the inclusion of older people in online interactivities through Web 2.0.

## **‘Digital Divides and Web Science’**

**Kieron O’Hara**

University of Southampton  
UK

Social inclusion in digital spaces is of prime importance as increasingly many social and governmental functions move online. But the notion of a digital divide is a problematic one. The digital technologies referred to are many and diverse, ranging from minute sensors to large-scale computing grids, while there are perceived divides across gender, colour, age and levels of wealth. Furthermore, there are differences in our relations to individual technologies - some are enabling/empowering, while others can work against us, for instance undermining our privacy.

Hence understanding and reacting to digital divides demands in-depth social and technical knowledge, when technologies are deployed on large scales in decentralised systems (as in the World Wide Web). The tight feedback loops between micro-level developments in protocols governing Web communications and operations, and macro-level social developments employing those operations, are not currently well-understood. In particular, interdisciplinary methods of study need to be fostered that do not treat the digital world as exogenous, but instead support the combination of analytic studies and synthetic engineering into a Science of the Web.

## **'The Aveiro Digital Internet Spaces to face the educational divide'**

**Lusitana Fonseca**  
Aveiro Digital  
PT

The Aveiro Digital Program is a mobilizing societal instrument for cultural change and enrichment, aiming to promote the social, economic and cultural development of the RIA region, through the modernization of services and the qualification of people and organizations.

The Aveiro Digital Internet Spaces represent a major priority of the Aveiro Digital Program in order to guarantee free access to ICT and Internet services to the 350.000 inhabitants of a very sparse and diverse region. Since the first half of 2005, a total of 95 Internet Spaces with 514 computers were installed and are daily operating, providing free internet services to the overall population. In these 95 Internet Spaces skilled monitors provide basic ICT training and support to specific population groups such as elderly, unemployed, women, retirees and immigrants.

This paper presents the evolution of the usage records, collected along the last years, showing their specificities regarding age, academic skills and urban/rural based operation. The usage data analysis allows a better understanding of the major constraints to promote a broader access to education and supports drawing further initiatives for more regional cohesion and inclusiveness.

## **'Taking stock of the digital divide'**

**Sharon Strover**

UT Austin

USA

This paper will analyze the experiences of the United States with the introduction and diffusion of computer- and Internet-based technology systems. The first section reviews population or "user" data collected by several federal and state sources, and highlights the history of various efforts to remediate what many perceived to be a new, technology-based system of exclusion and difference that began to affect the educational systems and the workplace. The second section summarizes the policy response to new, digital technologies, with particular attention to policies of universal service and broadband deployment. It argues that it is difficult to create policies related to information and communication technologies (ICTs) without overhauling policies affecting so-called conventional communication systems, and recommends that a national broadband policy be linked to specific communication and democratic goals. The third and final section addresses the potential of social networking tools and other devices for broadening the participation of people in a range of endeavors. Such tools may be the harbingers of a new, less stratified realization of an information society.