Sus-IT: Sustaining IT use by older people to promote autonomy and independence

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Background

• Increasing pervasiveness of ICTs offers significant potential to sustain and improve the quality of life and independence of older people.

• Many older people are already regular and enthusiastic users of ICTs. Over 65s are the fastest growing sector of internet users (Office of National Statistics, 2004)

BUT…
“there is a real risk that in the medium to long term, significantly more citizens will migrate from being digitally engaged to being unengaged than the other way round, as their capabilities change”

(UK Digital Inclusion Panel Report 2004 p. 79)
Why this research is needed

…People show me how to text, but I forget…
…I give up… (with technology) – I haven’t got the confidence…

…You get a remote control and what do you press? I’m always afraid of pressing the wrong button and messing it up…

…The internet has appealed, but I’ve never plucked up the courage…
…My computer is in cobwebs…

…I’m familiar with the computer. You can do so much with it…

…I send emails daily to my daughter. It’s great – there’s an immediate response…
The relationship between support and independence

- Changing ability → adapting support = independence
- Changing ability → non-adapting support = potential loss of independence
Sus-IT Research Questions

• What are the problems and support needs of older ICT users?
• What potential solutions are available or could be developed?
• How can a wide range of stakeholders, including older people, work together on this?
The Sus-IT research community

Academic Expertise in Sus-IT
- Cognitive psychology
- Gerontology
- Demography and ageing
- Social informatics
- 3D environments
- Assistive technology
- Digital media accessibility
- Interactive design

Older people
- Participation processes
- Participative design
- Interactive theatre
- Change management
- Inclusive/user-centred design

User organisations
- Microsoft
- Ambient Performance
- Dolphin
- AbilityNet
- London Borough of Barnet
- Local Government East Midlands
- Charnwood Borough Council
- ROL
- NIACE
- OATS

Representatives of older people (advocacy; policy making)
- Help the Aged
- Age Concern, etc.

Consultants, Advisors & Steering Group
- Panel of 1000 elders
- Voluntary Action Charnwood
- Mintoes
- U3A, etc.

Panels, groups and individuals
- Help the Aged
- Age Concern, etc.

The Sus-IT research community

new dynamics of ageing
a cross-council research programme
How this community came about

• Facilitated workshops were convened
• Contacts were established
• Relationships developed
• Conflicts arose
• Mutual understanding and trust grew
• Ideas emerged

………serious work began
Structure of the project

**Facilitating participation and building user capacity**

WP1A
- Notts
- Trent
- Middlesex
- Lboro

WP1B
- Lboro

Supporting effective multidisciplinary research

WP2
- Lboro

Changing needs, perspectives and expectations of ICT usage

WP4
- Dundee
- Anglia Ruskin
- Notts
- Trent

Barriers to effective use of ICT and the means to overcome them; Adaptive technologies

WP5
- Structures, relationships and learning environments to support older people’s use of ICT

WP7
- Surrey
- Lboro

Innovation and exploitation of research to inform policy, research and practice

**Research outputs:**
- Improved knowledge and understanding of the dynamics of ageing and ICT use
- Personas of older people
- New methods and tools
- Prototypes and demonstrators
- Learning environment
- Reference model for design

**Outcomes:**
- Improved quality of life and social inclusion for older people through appropriate ICTs
- Improved design and uptake of ICT based services and products for older people
- Enhanced capacity for engagement of older people in research

**Loughborough University**

**new dynamics of ageing**

cross-council research programme
Workpackage 1A

• Will ensure that older people’s concerns and perspectives drive and inform all stages of the research.

• To provide and maintain:
  – an actively engaged pool of older people and their groups;
  – support for researchers in all WPs for participatory methods, principles and ethics;
  – spaces (physical and virtual) and opportunities for older people to engage with and validate the research;
  – a dynamic knowledge base of older peoples’ diverse interests, needs and expectations as related to ageing, quality of life and ICTs.
Workpackage 1B

- Will create the spaces to share different styles of discourse and research, and develop stronger collaborative working and knowledge sharing practices.

- The outputs will include:
  - Generic models of multi-disciplinary working and recommendations to promote collaboration across disciplinary boundaries
  - Learning materials to promote and inform multidisciplinary research work
  - Methods for promoting knowledge sharing
Workpackage 2

- Psychosocial dynamics of ageing and digital ICT use
  - to investigate and provide evidence of the dynamic interaction between psychological functioning, perceptions of well-being and the use of digital ICTs in elderly people, by tracking and assessing changes to capacity in a sample of older people over the project duration.
Workpackage 3

• Demonstrators of technology to explore opportunities
  
  – to build understanding of practical ways in which ICT can promote and sustain autonomy and independence for older people, through engagement with the development of a tangible range of devices
Workpackage 4

• Framework for adaptivity

  – to develop methods of identifying and systematically overcoming barriers to effective, sustained, satisfying use of digital ICT by older people as their capabilities change
Workpackage 5

• Development of learning environments

  – to identify learning and support mechanisms which will enable older people to sustain use of ICTs and promote independence and autonomy
Workpackage 7

• Research to inform policy, research and practice
  – through implementation of the technology and processes delivered
  – commercialisation and exploitation plan will be prepared to assist in this roll-out
  – research outputs that will influence and inform policy and practice will be generated as a result of the focus on engaging with stakeholders, e.g. policy-makers, system designers, service providers, other related research centres throughout the world, and other organisations concerned with the welfare of ageing people
Research Methods

- Include both innovative approaches and innovative combinations of approach
- Complement the established techniques from the field of Participatory Design and Inclusive Design
- Sociologically-informed methods and techniques drawing on ethnography, grounded theory and activity theory for understanding older peoples’ lives, their perceived capability and well-being, and their attitudes and experiences of technology
- Partners also contribute expertise in the application of techniques for creative ideas generation e.g. theatre, role-play, song, dance, video or photography
- Quantitative methods, techniques and measures from the Human Sciences domain will be used to establish baseline data about older peoples’ physical and psychological capabilities, and to track with a sample of older participants how these change over the duration of the project.
- Methods from Computer Science will be applied to develop innovative solutions in WPs3, 4 and 5 which meet the needs previously identified in WPs 1 and 2
Impact and Relevance

• The outcomes will also be relevant to other ICT user groups since, as Newell et al. (2003) point out, all users are ‘extra-ordinary’ in certain circumstances
• User organisations include
  – **local government** offering services such as e-Government and telecare (to promote independence through delivery of customer-focused services in the home);
  – the **NHS; Government Departments** e.g. Work and Pensions and Education and Skills;
  – non-government organisations such as the **Carers Association, Age Concern, Help the Aged** and **Abilitynet**.
  – growing number of commercial companies who provide services to the elderly e.g. **Saga, Egg**, and the many software and web developers webpage authors, etc designing and developing adaptive technology for the elderly (e.g. **Microsoft, Dolphin**) are also potential beneficiaries
Acknowledgements

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Thank you for your attention

- and now your questions, please.