Achieving and sustaining digital inclusion of older people: some key challenges

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Contents

• The long journey to connection: entry barriers
• Risks to staying in cyberspace
• Some current research
• Tackling the challenges
Known benefits of ICTs

*Digital technologies can enhance:*

- personal health, self-efficacy and wellbeing
- skills and capabilities
- economic and life chances
- social interaction and cohesiveness
- civic engagement and participation
The Learning Journey

- Challenging
- Frightening
- Baffling
- Frustrating
- Tiring
- Non-intuitive
- Costly

... but many persist despite the difficulties
Starting a long way back...

“When I first started, a message used to come up, saying you have just done an illegal entry and the computer needs to close down. I shut the windows because I thought the police were coming”.
Entry barriers to cyberspace

- Lack of awareness/information
- Entry barriers to cyberspace
- I don’t understand the technical language the trainers use
- Learning by trial and error frustrates me
- Cost of training and technology
- I might break it! I am scared of the mouse
- I learn it in class and I feel I get it. I go home and I have forgotten it all
- Insufficient ‘adequate’ learning provision
- There is no one to help me if it all goes wrong
- My grandchildren try to help – but they are too fast
But success is exhilarating!

“It was like waking up after 15 years.”

Source: Digital Unite
Two million Britons have come on-line in the last 12 months - more than 1 million are over 50

Source: UKOM /Neilson
Risks to sustained connection

- Cyber nuisance
- Cyber crime
- Cyber barriers
- Accessibility constraints
- Costs
Cyber nuisance

- Spam
- Pop-ups
- Unwanted ‘intelligence’
- Passwords

“I put the laptop on and something pops up asking me to renew something or update something….I get scared that I might press something wrong and destroy the stupid thing”
Cyber crime

• Phishing
• Viruses
• Worms
• Identity theft
It’s all gone wrong. I don’t know how to put it right.

I did it a while ago. Now I don’t know how to do it. My mind has gone blank – I’ve forgotten.

My support network has gone.

I learnt on Windows XP. I bought a new laptop with Windows 7 on. Everything is different. I don’t know how to do my normal tasks.

Updates, drivers, software hardware – what is it all about. I don’t understand.

Cyber barriers
Digital hell
Accessibility constraints

- Sensory impairment (especially visual)
- Motor/mobility impairment
- Cognitive impairment e.g.
  - memory
  - learning difficulties
  - language differences/difficulties

...Many people have a combination of these
Age-related changes affecting ICT use

• Physical changes,  
  e.g. eyesight, hand dexterity, mobility

• Psychological and cognitive changes  
  e.g. confidence, memory

• Social changes,  
  e.g. family members moving away
Connection in the balance

Disability
Ageing issues
Cyber changes
Cyber crime
Cyber nuisance

Benefits of digital engagement

Cyber nuisance
Cyber crime
Cyber changes
Ageing issues
Disability
The UK Digital Inclusion Panel predicted that:

“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”

How many of the 2 million new recruits will still be on-line in the next 1, 5 or 10 years?
Why does disengagement matter?

- Excluded people may not be able to benefit from the advantages of being online, e.g.
  - information
  - education
  - e-commerce
  - social contacts

- Excluded people may not be able to participate fully in society, e.g.
  - e-government, e-democracy
The challenge...

keeping older and disabled people connected
Taking up the challenge

There’s no silver bullet - many contributions will be needed: e.g.

• Research
• Business
• Design
• Learning and support provision
• Policy
Some current UK research

• Extensive international research is available on digital inclusion
• UK Research councils give high priority to achieving impact, informing business, government, and society. Two examples:

New Dynamics of Ageing (NDA) Programme: ‘Sus-IT’ project Sustaining IT use by older people to promote autonomy and independence - giving new knowledge and understanding to inform solutions to empower older people to participate fully in the digital economy and society: a 39 month collaborative project.

KT-EQUAL (formerly SPARC) - a consortium of UK researchers dedicated to extending quality life for older and disabled people.

Both programmes involve older and disabled people in research and bring together researchers from different disciplines, policy-makers and service users. to share knowledge and expertise to inform regulations, policy and practice across many sectors.
Sus-IT Project Partners:

- 22 Academics/researchers/research students in seven UK universities (Loughborough, Nottingham Trent, Lincoln, Surrey, Middlesex, Anglia Ruskin, Dundee)
- Expert consultants
- Representatives from ICT development and service provider organizations
- Third sector organizations representing older people
- Older people themselves
The Sus-IT research community

- User organisations
- Academic Expertise in Sus-IT
- Older people
- Representatives of older people (advocacy; policy making)
- Panels, groups and individuals
- Consultants, Advisors & Steering Group
Research Contributions

Knowledge and understanding

Learning & engagement strategies

Technical design, HCI

Awareness education & support
Innovative Methods

Developed and used to promote engagement with – not just to collect data from – older people

• Pictorial Questionnaire
• Storytelling
• Sandpits
• Interactive theatre
• Clubhouses
Research outcomes so far

• New knowledge of parameters of digital engagement & disengagement
• Rich information from multiplicity of research activities
• Growing base of engaged older people
Key factors in sustaining ICT use

- Information and awareness
- Access to support
- Education and learning
- Motivation/perceived benefits
- Capabilities and skills

Technology change

Capability change

Factors influencing use

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Key Challenges

• How to stimulate interest – and investment – in sustaining ICT use by older people
• How to structure our growing knowledge base to ease transfer of knowledge to multiple stakeholders
• How to convey to funders and to individual institutions the resource intensive nature of large scale multidisciplinary projects
Meeting the challenges of multidisciplinary working

• Learn about others’ methods and constructing collaborative models.
• Acknowledge and accommodate differences in working culture, language and behaviour.
• Professional facilitation
• Modify institutional expectations and performance measures to support it.
Next steps

Multi-disciplinary problem-solving to generate sociotechnical solutions to reduce the barriers to sustained ICT use. E.g.:

- Technical design changes: designing for adaptivity
- Hardware design which embeds the technology
- Solutions which reduce the cognitive load (effort and memory) of using ICTs
Business: Opportunities

Innovating for:

Accessibility

Inclusion

Integration

Opening up new market opportunities in every sphere of life e.g.

Healthcare

Commerce

Homecare

Recreation

Education
Invest in design!

The demands of digital engagement, especially cognitive load, can be reduced by designs which are:

- User friendly
- Accessible
- Intuitive
- Seamless
- Embedded where appropriate (“hidden functionality”)
- Adaptive
- Make upgrading and administration transparent and easy
Learning and support

Emerging findings show preferences for:

• slower pace of delivery,
• paper-based aide memoires and documentation
• learning in informal settings with peers or one-to-one

Other needs identified for:

• better provision of information on selecting ICTs
• support in the home and in the community
Whose responsibility is it to ensure older people can continue to access services on-line as the age?

- for themselves (enabled by appropriate capacity-building measures and tailored hardware and software design)

- by proxy where they cannot or prefer not to use the internet themselves – and - who should/will resource this?
Policy – more emerging issues

Whose responsibility is it to provide reassurance to quell the fears and misgivings voiced by growing numbers of older people regarding use of the internet?

E.g.:

- loss of self-efficacy from the perceived imperative to replace high levels of competence in life skills with low levels of ICT competence
- being ‘forced’ to buy a laptop to pay their council tax
- pressured rather than encouraged to use e-services
Conclusions

- Risks of disengagement are a serious threat to long-term digital inclusion of older people
- Awareness of the issues and solutions is limited
- High level of investment in helping older people to become connected vs very low-level of investment in sustaining digital engagement
- There are many challenges for researchers; policy makers; business leaders; and other key stakeholders to address as a high priority
Thank you!

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