

Using the creative potential of older people in design



David Frohlich

Digital World Research Centre

Thursday 20 January 2011

Plan



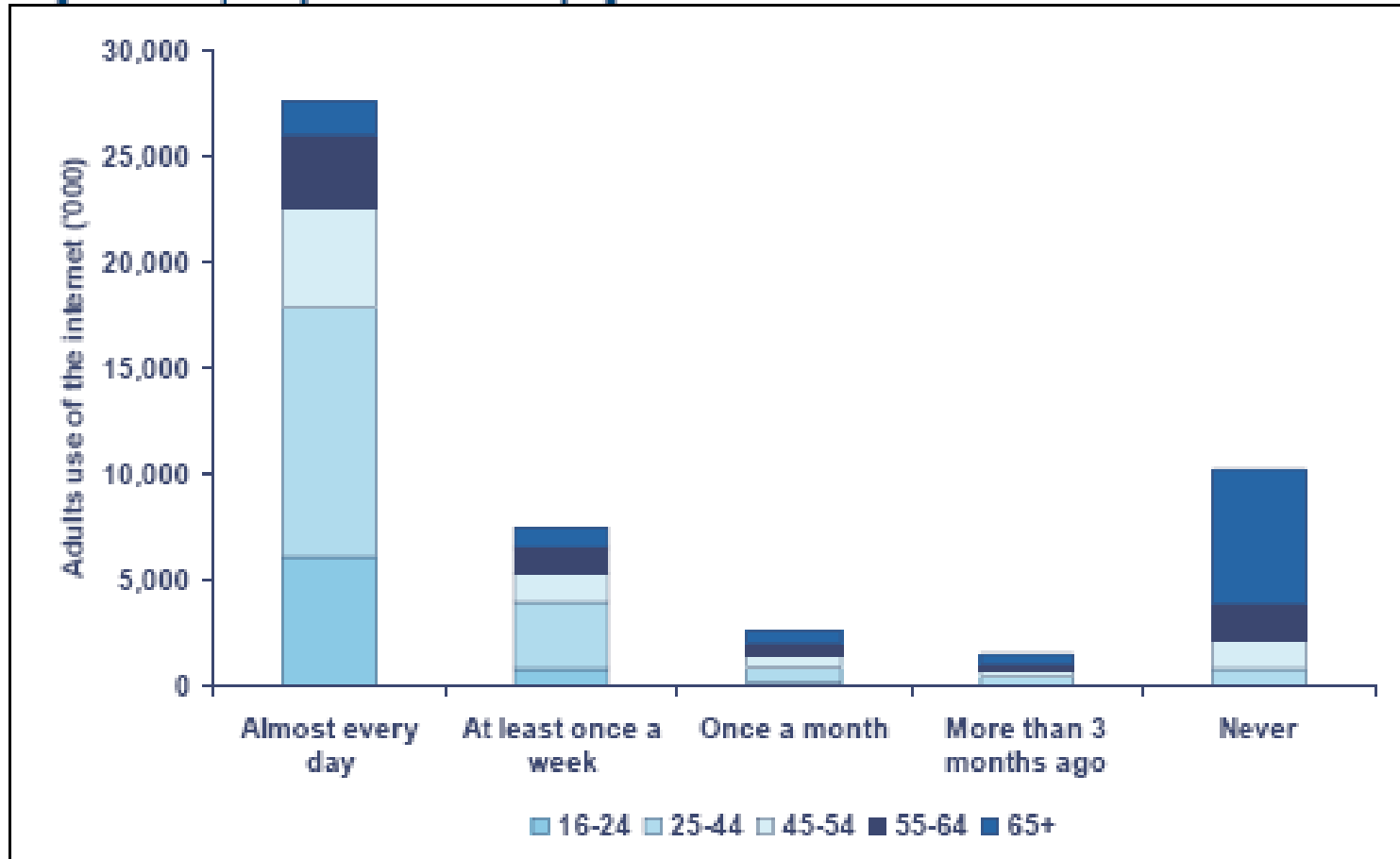
- Motivation
- Project context
- Methodology
- Sandpit 1 – ‘Custom computer’
- Sandpit 2 – VR ‘Travel glasses’
- Conclusions

Motivation



Older people often portrayed as a design problem rather than a design resource....

Figure 3: Frequency of internet use by age



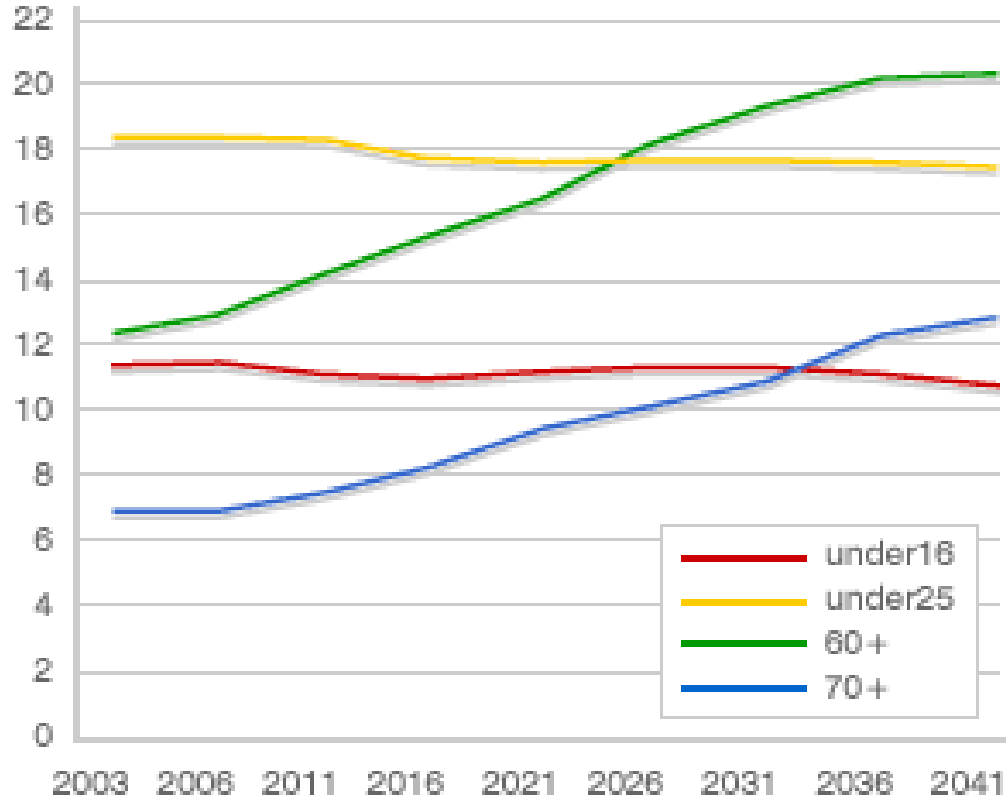
Older people often not the target market for design and therefore not involved



Over 60s is a large and growing market

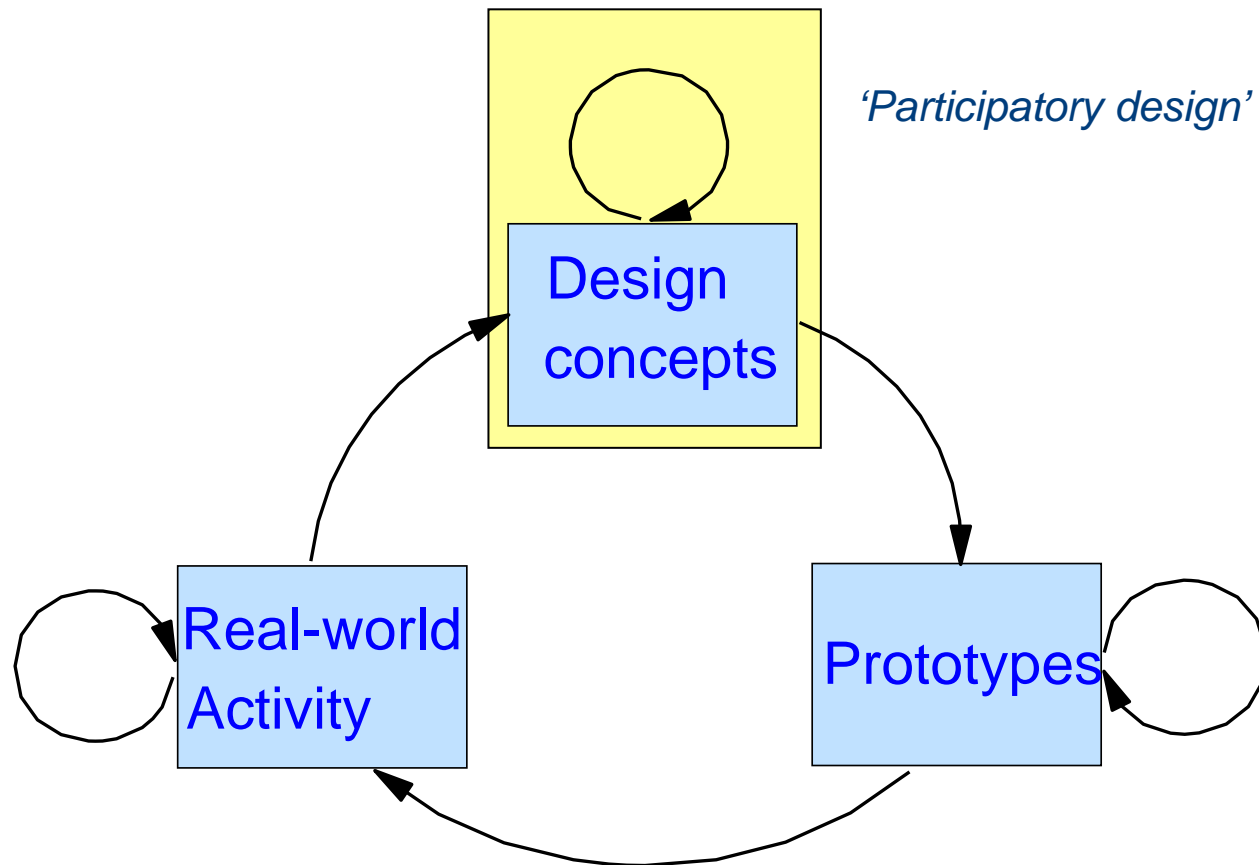
UK's ageing population

Projected population by age
(millions)



Source: Government Actuary's Dept (2003 projections)

So how can we involve older people in the lifecycle of design?



Stereotypical objections to participatory design with older people

- Lack of motivation
- Unfamiliarity with technology
- Comprehension of novel concepts
- Lack of concentration and stamina
- Lack of imagination

Project context



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



- To strengthen capacity for effective participation of older people in ICT policy, research and design;
- to investigate potential of, and barriers to, sustained use of digital technologies by older people, from perspectives of a range of stakeholders;
- to explore potential solutions to overcome barriers and promote and sustain autonomy and independence for older people;
- to generate research outputs which will influence policy, research and design, in ICT for older people.

<http://sus-it.lboro.ac.uk/latestnews.html>

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

- To strengthen capacity for effective participation of older people in ICT policy, research and design;
- to investigate potential of, and barriers to, sustained use of digital technologies by older people, from perspectives of a range of stakeholders;
- to explore potential solutions to overcome barriers and promote and sustain autonomy and independence for older people;
- to generate research outputs which will influence policy, research and design, in ICT for older people.

<http://sus-it.lboro.ac.uk/latestnews.html>

Methodology



'Sandpit' workshops: extended focus groups with PC + non-PC owners of retirement age

Focus group

+

Co-design session



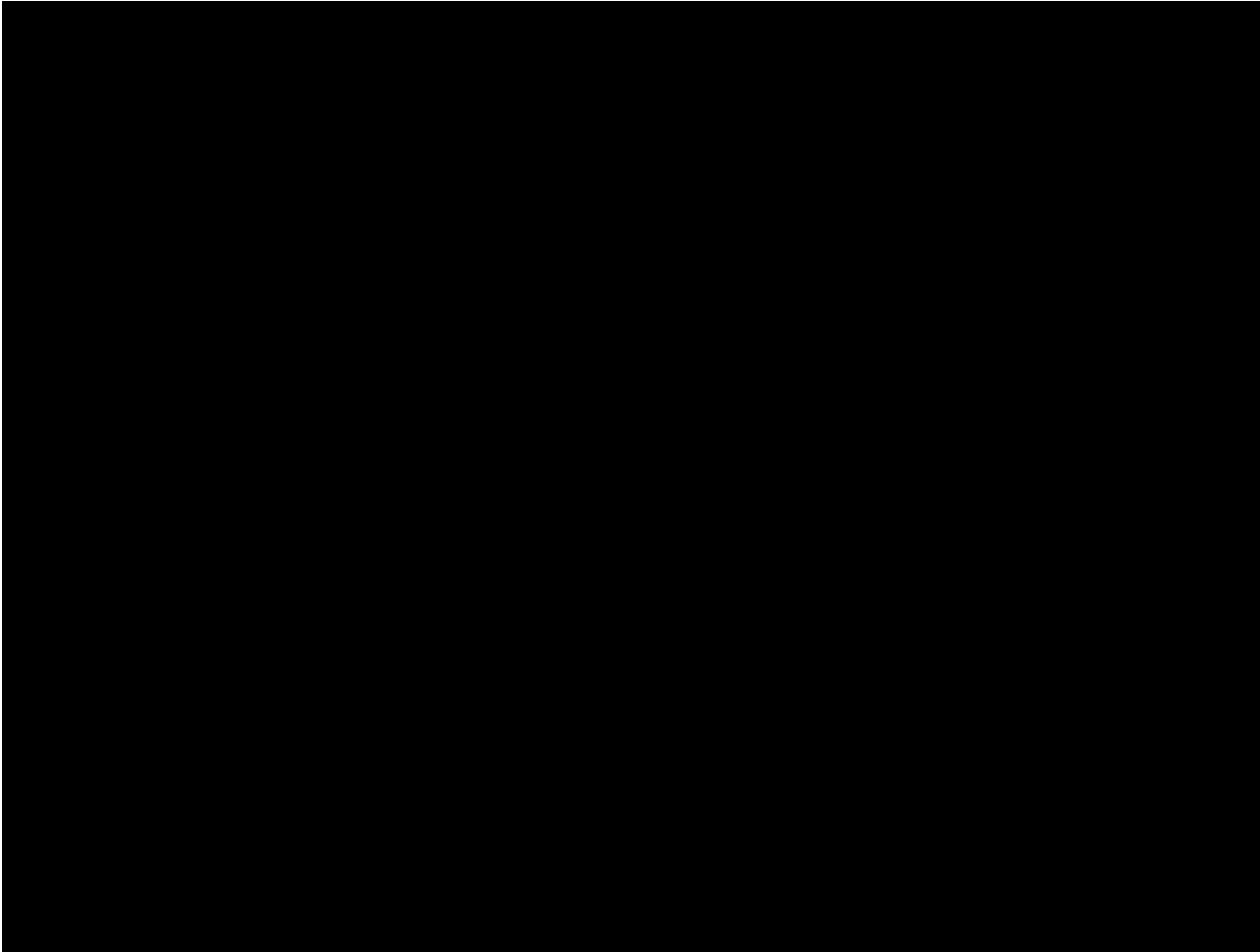
Dramatic envisionment
Physical and hands on demos

Concept re-design

Sandpit 1 – ‘Custom computer’



Scenario 1 – Main concept



Participants own (re-) designs

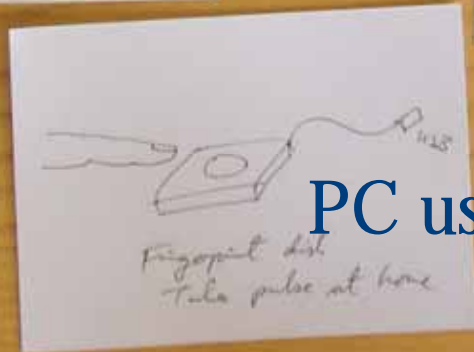
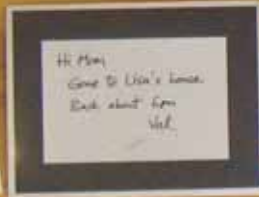
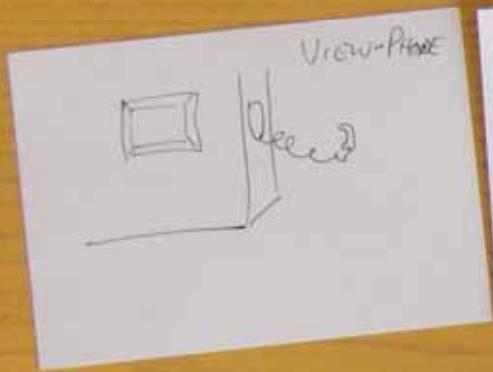
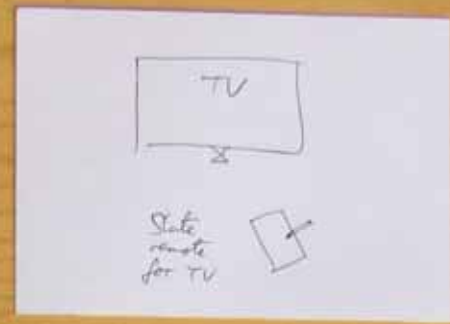
ROOM (6)

X

FORM (12)

X FUNCTION (20)





PC user re-design – Group C

Sandpit 2 – ‘Travel glasses’



Sandpit 2. Memory and identity concepts

Travel glasses



Reminiscing Radio



Story lamp



Everyone has places which are special to them... where they have lived and worked, where they visited family, where they went on holiday. Re-visiting these places often brings back many memories of the times spent in them. However it is not always possible to travel back in person. It might be too expensive, time consuming or challenging to make long trips in later life.

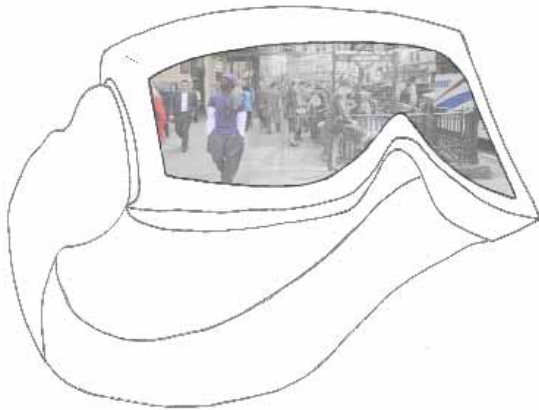
So imagine a pair of *travel glasses* which can transport you back to a special place. When you put them on it feels like you are back in the place itself and can look and move around in it. Now the place you see could be as it is today in the present time. Or you could turn a dial to go back to the place as it was when you knew it.

Travel glasses hands on demo



Re-designed glasses concepts – Non-PC group

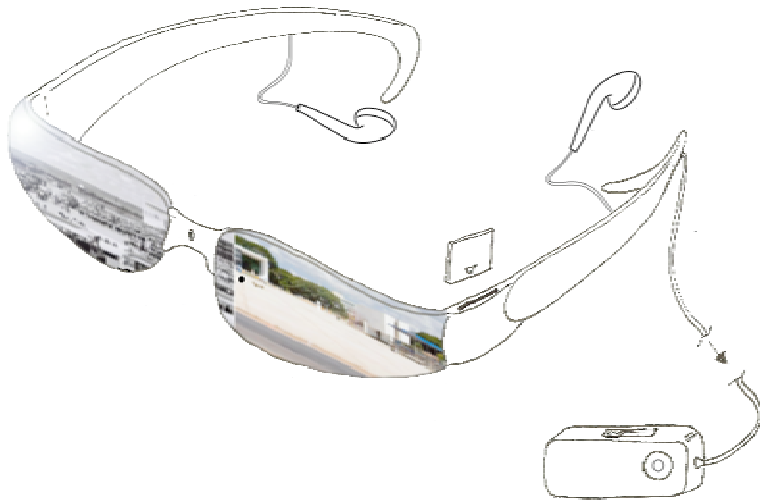
Augmented-reality goggles



- Goggle-like design to accommodate spectacles
- Superimpose old scenes on real life ones, based on old photos from personal or public archives
- Make other content available for new experiences such as extreme sports or travelling to other locations

Re-designed glasses concepts – PC group

Wearable camera and videophone



- Add a camera and microphone to allow users to record their journey and make commentaries
- A USB or memory card slot was integrated for storage and transfer
- Live relay of images and sound to another (housebound) person wearing another pair of glasses
- Remote control to keep glasses lightweight

Conclusions



Stereotypical objections to participatory design with older people

- Lack of motivation
Punctual, polite, engaged. 80% return rate
- Unfamiliarity with technology
Sometimes a good thing
- Comprehension of novel concepts
Need creative methods of concept envisionment
- Lack of concentration and stamina
Take frequent breaks, tea and biscuits, lunch
- Lack of imagination
Untrue – see concepts. Needs facilitation in small groups

Specific assets of older people in participatory design



- Honesty
- Humour
- Life experience
- Long technology history

Educational effect of participation



For some Non-PC users, the session changed their perception on computers and ICT devices:

“I have learned a lot and my ideas have changed a bit to what they were, I mean for my form it says ‘have you got a computer?’, I put no, and it said why? And I put ‘because I don’t want one’. It changed my mind because these things are very interesting and I learned quite a lot today. Changed my ideas a little....I would probably reconsider getting one...”

“I wasn’t really interested at all in computers as things but today, I’m quite intrigued about them I must say.”

Acknowledgements



Sandpit 1

Participants – Dundee University ICT drop-in Centre

Conceptual design – Sarah Woods

Data analysis – Chris Woods

Planning advice - Risto Sarvas, Sue Venn

Technical input – Amr Ahmed, David Sloan, Colin Machin, Matthew Atkinson

Workshop organisation – Paula Forbes, Lorna Gibson

Scriptwriting & direction – Maggie Morgan

Actors – Iain Wotherspoon, Jane Nelson Peebles

Facilitation – Maggie Morgan

Film production – David Goodall

Sandpit 2

Participants – Age Concern Guildford

Conceptual design and data analysis – Chris Lim

Technical input and workshop facilitation – Amr Ahmed

Thanks also for encouragement and advice from other colleagues on the SUS-IT project from the Universities of Loughborough, Anglia Ruskin, Lincoln, Surrey, Dundee and Nottingham Trent.

<http://sus-it.lboro.ac.uk/latestnews.html>