When designers meet older people

John Clarkson

Engineering Design Centre

A little history
• Business case for inclusive design
• Tools for inclusive design
• The future

i~design

When designers meet older people

Engineering Design Centre

A little history

i~design 1: Inclusive design for the whole population
Understanding

i~design 2: Providing tools to improve quality of life for the wider population
Guidance

i~design 3: Extending active living through more effective inclusive design
Users

Knowledge Exchange
KT=Equal: Putting ageing and disability research into practice


Good design – a response to need

• A coffee pot for use on airlines
• Highly functional
• Highly usable

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Engineering Design Centre
Good design – a response to diversity

• An injector for daily use by all ages
• Highly functional
• Highly desirable

Good design adds value

• Research by the Design Council

Understanding people

60 Million Population
50 : 50 Gender
11 Million Children
10 Million Disabled
8.5 Million Arthritis
9 Million Hearing loss

Understanding people

It is normal to be different

Population change

• Most populations are ageing rapidly

% Increase 1990-2050
Population change

• Even today, half the UK adult population are aged 47 or over

Population change

• The changing shape of Japan’s population pyramid

Population change

• Variation of capability

GB Population (%)

Age Band

Does it really matter?

• In 1950 the PSR was 12:1

Potential Support Ratio (PSR) is the ratio of the number of 15-64 year olds who could support one person 65+

Does it really matter?

• In 2000 the PSR was 9:1
Does it really matter?

• In 2050 the PSR will be 4:1

Independent living goes from being an aspiration to an imperative

Does it really matter?

• In 2050 for the developed world it will be 2:1

Things have got complex

• Featuritis
  • In Microsoft Word 1.0 there were about 100 features. Word 2003 has over 1500
  • 9 out of 10 features that customers wanted added to Office where already in the program – “They simply don’t know it’s there”

Things have got complex

• Simplicity on its own is not enough
• Products must first be accessible
Things have got complex

- Minimal use of graphics
- More than 25,000 new customers generated

It's not all bad news!

- Satisfaction with life index

Inclusive design

- The design of mainstream products and/or services that are accessible to, and usable by, as many people as reasonably possible …

… without the need for special adaptation or specialised design

Inclusive design

Inclusive design = better design

Inclusive design

Simple ‘everyday’ remote as an optional extra

Standard remote with standard functions

Set top box

Inclusive design

Inclusive design

Number of People

Find Easy
Frustrated
Has Difficulty
Excluded

Product Experience
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Real users

Vision

![Graph showing ocular accommodation over age](image)

Vision

- Vision
- Hearing
- Thinking
- Communication
- Locomotion
- Reach & stretch
- Dexterity
Dexterity

Able-bodied users

Extreme users

Boundary users

Personas

Personas
Vision simulator

Reach and stretch simulator

Dexterity simulator

Capability data

Demand assessment
Demand assessment

- High demand
- Low demand

Demand assessment

- Exclusion data for GB population

Case studies

- Current product (~4.0m adults excluded in GB)

Case studies

- Proposed Concept (~2.1m adults excluded in GB)

Books
Website

Interactive training

Conferences

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People, not users
- 1950s Designing for people
- 1970s Designing for the disabled
- 2004 Designing for people

People, not users
- Coming soon ...
People, not users

Information, not data

Information, not data

Information, not data

Information, not data

Better design, not Inclusive design

It is normal to be different
Inclusive design = better design

Better design = good business

Better design, not Inclusive design

Inclusive work

Inclusive health

Inclusive education

Innovation, not accommodation

Better design = good business

Inclusive work

Inclusive health

Inclusive education
Inclusive design

• Policy makers with a focus on people
• Businesses with a will to innovate
• Designers with the ability to innovate
• Educators with the resources to inspire
• Customers with the desire to purchase

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helen hamlyn centre