




Business Case for Inclusive Design
John Clarkson

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Design



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Good design responds to need


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



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Good design responds to diversity

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



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Good design adds value



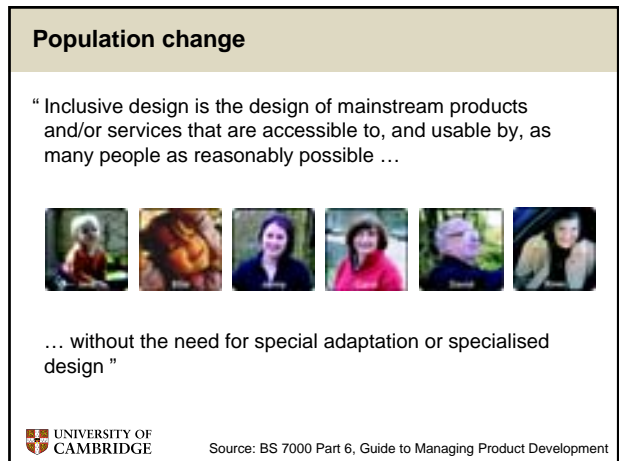
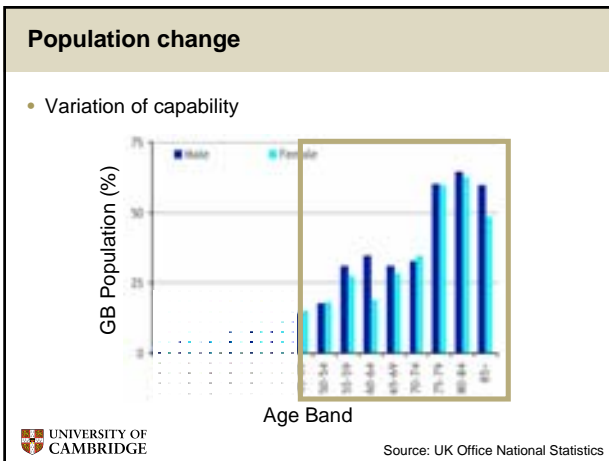
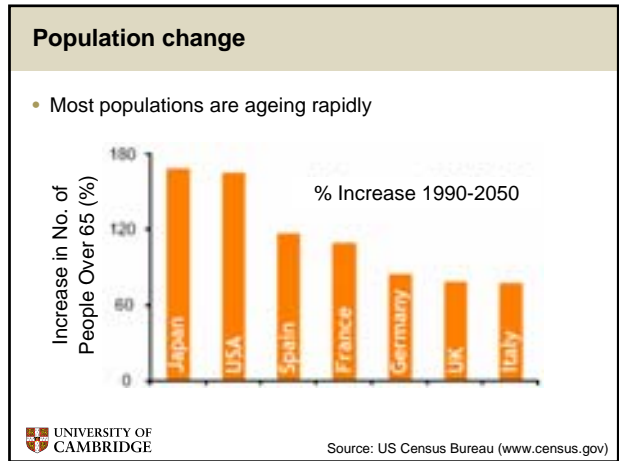
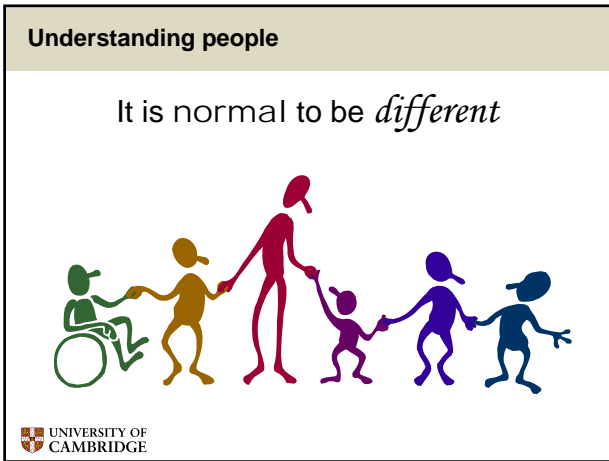
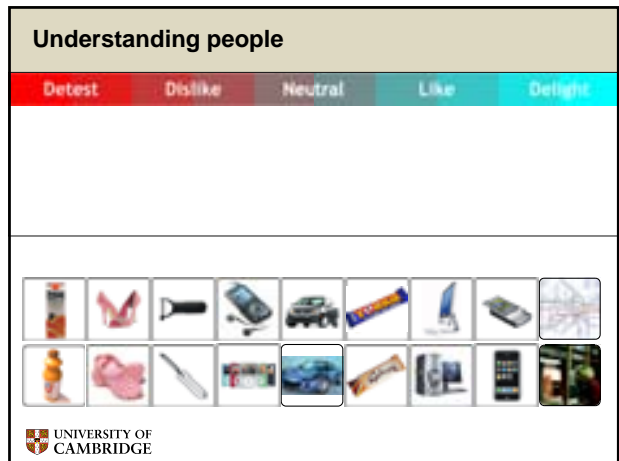
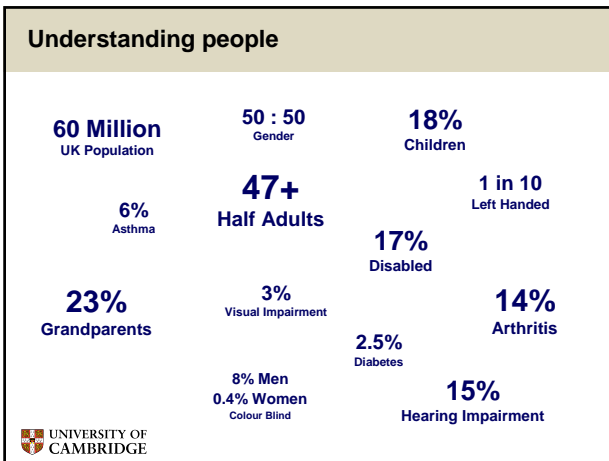
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Source: Design Council (2005)


Understanding people



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People



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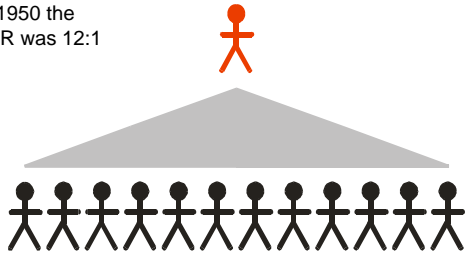
Does it really matter?



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Does it really matter?

- In 1950 the PSR was 12:1

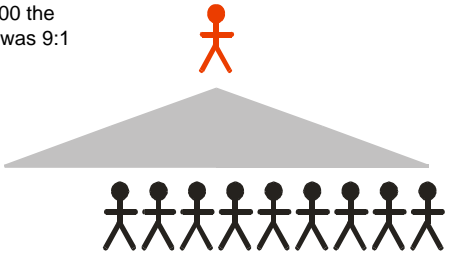


Potential Support Ratio (PSR) is the ratio of the number of 15-64 year olds who could support one person 65+

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Does it really matter?

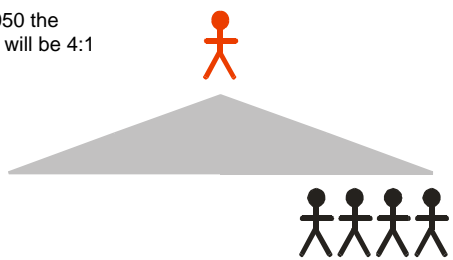
- In 2000 the PSR was 9:1



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Does it really matter?

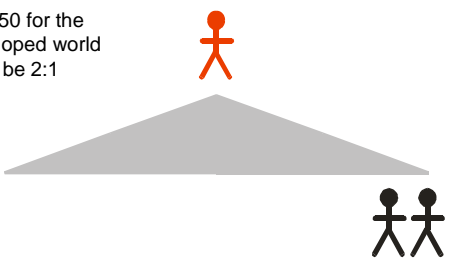
- In 2050 the PSR will be 4:1



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Does it really matter?

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



Independent living goes from being an aspiration to an imperative

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Packaging



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Packaging



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Things have got complex

PHILIPS
sense and simplicity

- Simplicity on its own is not enough
- Products must first be accessible



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Tesco access website

TESCO

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



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Understanding design

Inclusive design = better design



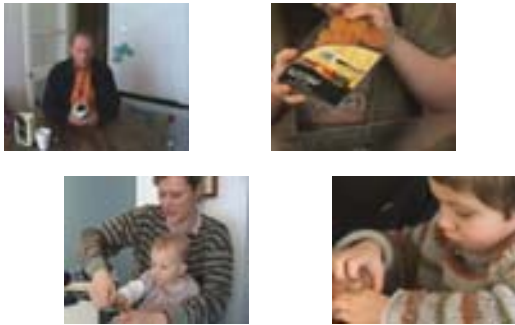
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Users



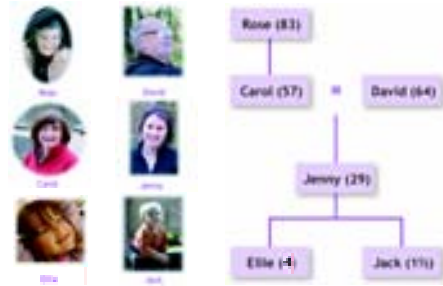
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Real users



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Personas



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Personas



Jenny

Mother (Age 29)

Jenny is a single mother to Jack and Ellie.

Being growing up in a family is always an adventure. Ellie is curious about everything and often reaches out to a world of her own, unaware of where her mother is. While Jack tends to be around and often tries to escape from his buggy. But neither children is huge, anything of throwing the ball makes her nervous as a committed full-time job.

Jenny is used to handling pressure in her own life but when her children need anything that immediately makes her stress. The right is used to the changes in order to be gentle but, make the children's grandmother happy too.

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Personas



Carol

Grandmother (Age 57)

Carol has a part-time job in a local arts and crafts shop. She is currently learning to use a computer to help out with accounts. She comes through the shop's card shop.

She is naturally very active, but has recently been diagnosed with a broken arm sustained in a fall. Although she usually does not get into an accident and always makes it to finding the professional help, sometimes they are able to help her with the effort and time-consuming.

Carol is particularly interested in not being able to help and also with her grandchildren in school. Especially as she desperately wants her grandchildren to finish the year without any more missing for her.

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Personas



David

Grandfather (Age 64)

Recently retired, David spends most of his time around the garden and playing golf. He occasionally has a visit to the countryside with his wife, Carol. He is currently working for a walking holiday for him in the summer.

Although generally fit and healthy, David has become hard of hearing, but struggles to accept it. He does have a hearing aid and that has helped greatly. It is another thing that Carol often has to assist for.

David doesn't use himself as well, particularly as he likes to use his mobile phone, Rose.

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Model of interaction

- Interacting with products and/or services involves three main stages: sensing, thinking and acting



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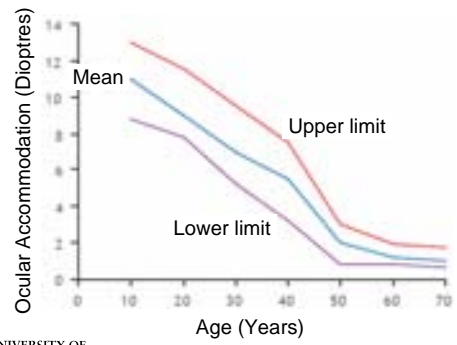
Model of interaction

- Vision
- Hearing
- Communication
- Intellectual functioning
- Locomotion
- Reach and stretch
- Dexterity



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Variation of accommodative ability



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A matter of life and death?



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A matter of brand identity?



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Vision impairment simulator



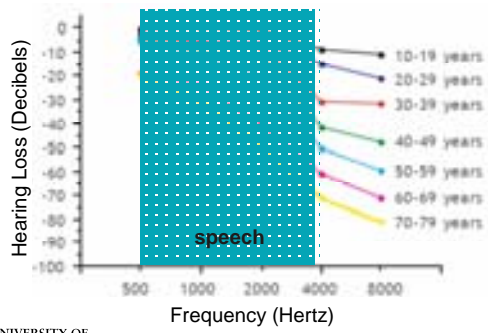
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Vision impairment simulator



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Variation of hearing ability



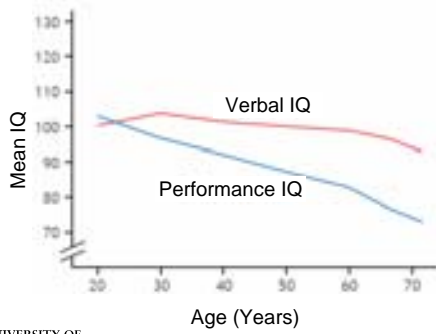
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Hearing impairment simulator



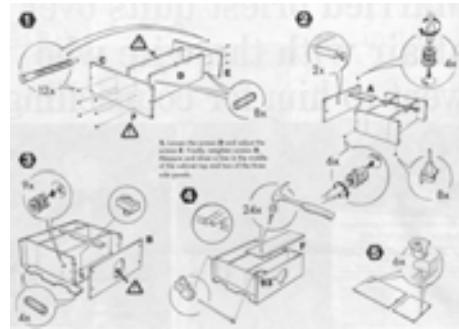
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Variation of cognitive capability



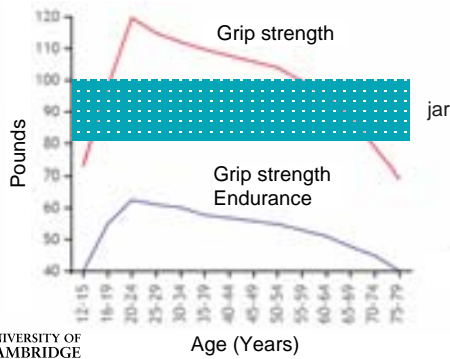
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Excessive cognitive demand?



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Variation of grip strength



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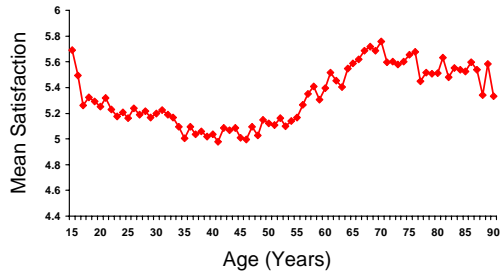
Dexterity impairment simulator



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It's not all bad news...

- Satisfaction with life overall by age



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Source: British Household Survey (4 waves from 1996 to 2000)

Inclusive Design



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Simple and stylish



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Model of interaction

- Products and/or services make demands on people's capabilities
- If the demands exceed these capabilities, exclusion or difficulty may arise



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Exclusion analysis



Airwick Spray

Make yourself an Airwicker already - make that better. You want to both get rid of the bad odors and have behind a pleasant fragrance.

Use Wick 2 or 3 aerosols continuously in a room as well as occasionally spraying your home. With Wick specially designed 2 in 1 formula, Air Wick Aerosols offer a double benefit - odor neutralization and fragrance in one!



Current product

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Exclusion analysis

Current product
(~4.0m adults excluded in GB)

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Exclusion analysis



Airwick Spray

Most people use Airwick simply to mask bad odors. You want to both get rid of the bad odors and have left a pleasant fragrance.

Our NEW 2 in 1 aerosol conveniently scents the air as well as beautifully fragrances your home. With their specially designed 2 in 1 formula, our new Aerosols offer a double benefit - odor neutralization and fragrance in one!



New concept
(~2.1m adults
excluded in GB)



Understanding business

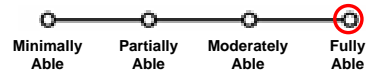
Better design = good business



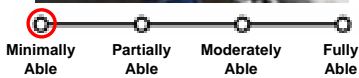
Resources



Able-bodied users



Extreme users



Boundary users



Personas

Minimally Able Partially Able Moderately Able Fully Able

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Personas

Minimally Able Partially Able Moderately Able Fully Able

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Vision simulator

Minimally Able Partially Able Moderately Able Fully Able

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Vision simulator

Minimally Able Partially Able Moderately Able Fully Able

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Reach and stretch simulator

Minimally Able Partially Able Moderately Able Fully Able

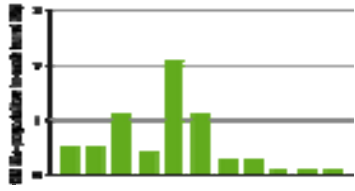
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Dexterity simulator

Minimally Able Partially Able Moderately Able Fully Able

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Capability data



Minimally Able Partially Able Moderately Able Fully Able



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Demand assessment



Low demand High demand



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Calculator



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Reference material



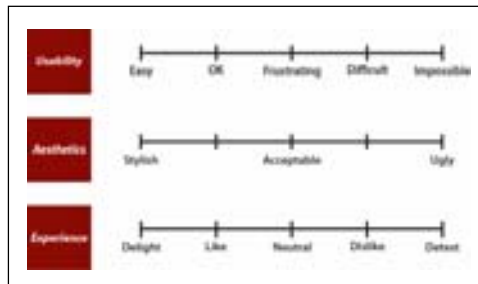
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Workshop



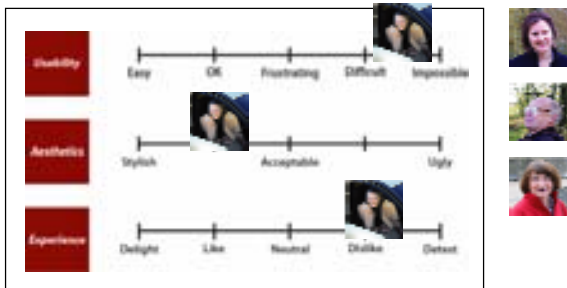
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Introduction to personas

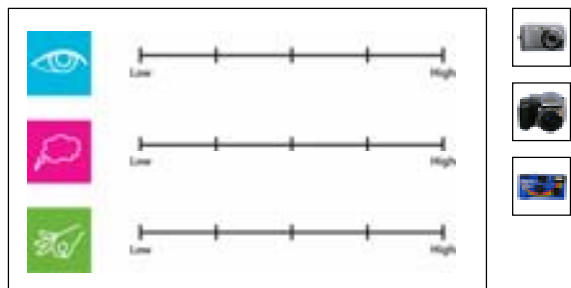


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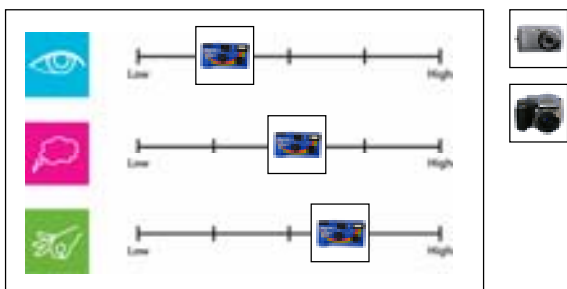
Introduction to personas



Introduction to assessment



Introduction to assessment



Summary



Understanding people

It is normal to be *different*



Understanding design

Inclusive design = better design



Understanding business

Better design = good business

