The Social and Economic Benefits of Accessible and Usable Information and Communication Technology

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The Design for All Research Group

- ❖ Mission: To utilise current and new high quality research theories and methodologies to enable all people, including older people and people with disabilities to be eIncluded and participate in the electronic knowledge revolution
- ❖ Aim: to carry out Design for All Research that combines and verifies relevant theory from a range of disciplines
- ❖ Impact: the results of our research is used to influence policy makers, professionals, academics and researchers
  - ▪ EU FP6 CA: Design for All @eInclusion
  - ▪ NDA: Sus-IT - Sustaining autonomy of older adults

The Social and Economic Benefits of Accessible Telecommunications

The aim of this talk is to discuss the way in which industry and higher education have responded to the need for future ICT professionals to be trained to meet the changing demographics of society and of the workforce. It will link these practical elements to the political aspirations for Europe's Digital Future.

Population Changes

In just a few decades, scientific progress has brought about a significant increase in life expectancy in the industrialized countries. But has the quality of life of the elderly improved along with it? As people live longer, medicine is facing a general increase in age-related illnesses, such as Alzheimer's disease and certain kinds of cancer.

RTD info - Magazine for European Research

Correlation of age and disability

Age and disability (Figure 10)
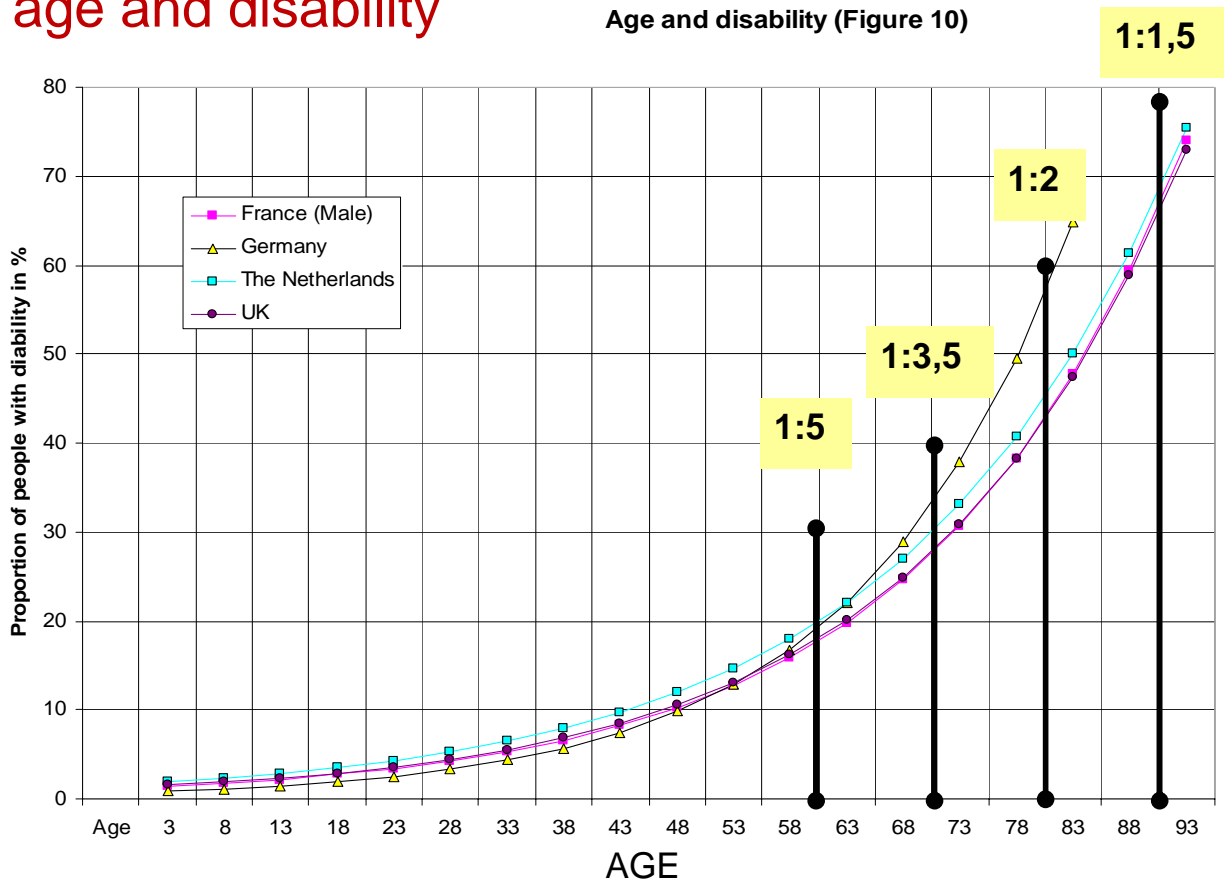
Factors for Exclusion

- ❖ Age – Elderly and Children
- ❖ Cultural/language
- ❖ Poverty
- ❖ Education
- ❖ Geographic Factors
- ❖ Gender

Digital Inclusion

Information and communication technologies, or ICTs, play a key role in all our daily lives, in our work, education, public services and in our homes. More and more new and complex services can be accessed electronically through a range of devices. Yet access, service design, personal capacity, trust, skills, willingness and awareness can represent significant barriers to some of the very people able to benefit most from these services.
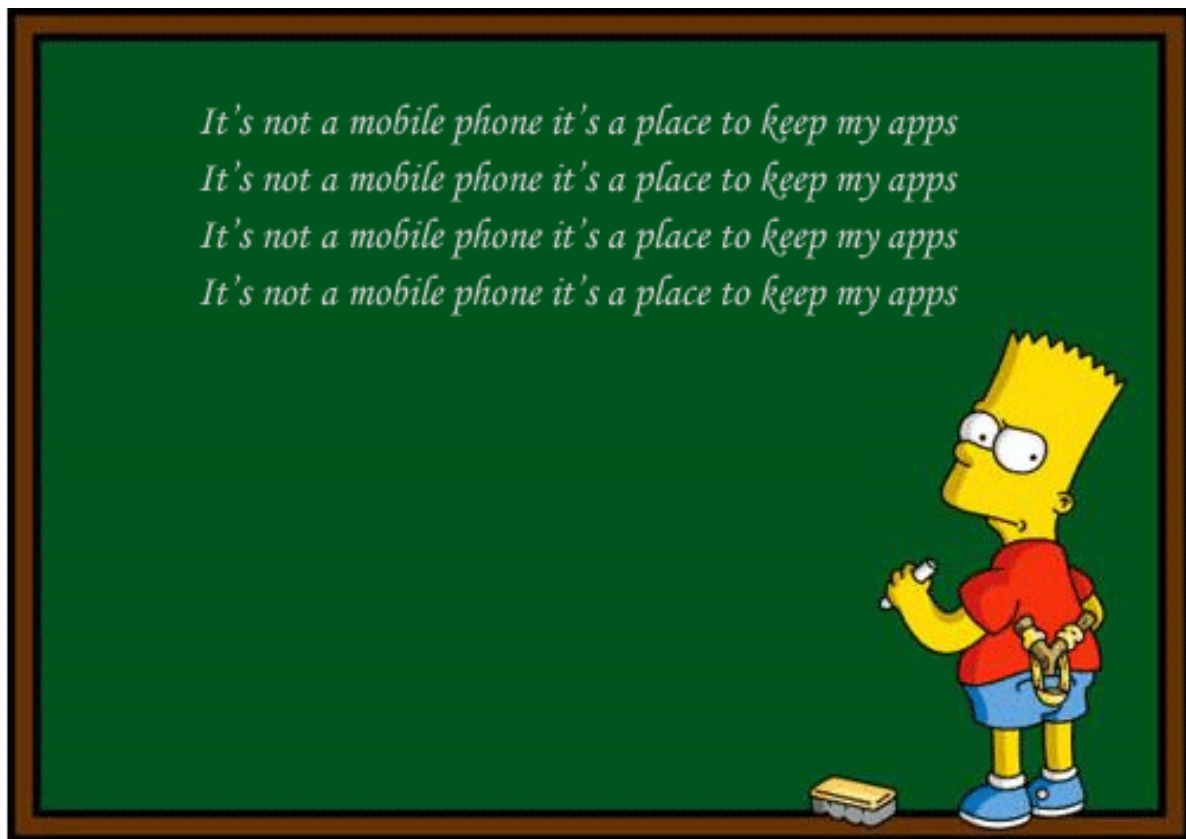
Digital Inclusion – Benefits for All

Terminology

❖ Design for Accessibility

❖ Design for All

❖ eAccessibility

❖ eInclusion

❖ Universal Access

❖ Inclusive Design

Technology

Technology

It's not a mobile phone it's a place to keep my apps
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The Future

The ageing of the population and the increased use of technology for work, daily life and fun means that there is a continued and increasing need for accessible technology to help include older and disabled people to remain active participants in society. It is needed both to enable people to remain in work and to assist with supporting their social inclusion.

Telecommunication equipment that has been designed using universal design or design for all principals should enable users to remain included.

The Future

Martha Lane Fox: chair of Digital Inclusion Task Force, says that getting the 10m Britons who have never used the internet to go online could generate at least £22.6bn in economic benefit – including at least £10.6bn over the lifetimes of the 1.6m children who have never used it.

One factor that will assist with the breaking of the digital divide is the creation of useable and accessible technologies which are based on an accurate representation of the user's needs.

Example:

A visually impaired user who wishes to access audio described television programmes would need:

❖ to be able to have access to digital television,

❖ to be able to select the audio description service,

❖ to be able to find out which programmes have audio description (most likely through a web based television guide).

Why is Digital Inclusion in telecommunication important ?

❖ Business case
❖ Ethical case
❖ Legal case

The main focus with respect to social inclusion is in the effect of the use of networked technology rather than the technology itself.

Business case for Digital Inclusion

Electronic delivery is the cheapest of all of the customer contact channels once it has been mainstreamed.

But do the digital excluded count? The business case in this area tends to focus on indirect rather than direct gains (such as reduction in unemployment, social cohesion etc).

Business case for Digital Inclusion

❖ Gaining business advantage in an increasingly competitive digital and global marketplace means primarily ensuring that you do not:

- ▪ cut yourself off from consumers by making your ICT products or services hard to access or use

- ▪ make it difficult to attract, retain or get the best performance from employees as they cannot access or use ICTs essential to their work.

from - Accessible Information and Communication Technologies: Benefits to Business and Society" commissioned by the OneVoice for Accessible ICT Coalition and sponsored by both Trinity Expert Systems and AbilityNet in association with City University London

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Business case for Digital Inclusion

❖ The Accessibility Maturity Model
This self-assessment tool is designed to help organisations to improve the accessibility of ICT systems, products and services. The tool can be used to develop a robust policy for accessible ICT with reference to existing disability, flexible working and other relevant policies.

❖ From the Business Taskforce on Accessible Technology (BTAT).

❖ http://www.btat.org/toolkit/maturity-model

Ethics from Oxford Online Dictionaries

Schools of ethics in Western philosophy can be divided, very roughly, into three sorts. The first, drawing on the work of Aristotle, holds that the virtues (such as justice, charity, and generosity) are dispositions to act in ways that benefit both the person possessing them and that person's society. The second, defended particularly by Kant, makes the concept of duty central to morality: humans are bound, from a knowledge of their duty as rational beings, to obey the categorical imperative to respect other rational beings. Thirdly, utilitarianism asserts that the guiding principle of conduct should be the greatest happiness or benefit of the greatest number.

Rights

The Convention on the Rights of Persons with Disabilities is an international human rights instrument of the United Nations intended to protect the rights and dignity of persons with disabilities. In Article 25 (1) the UDHR specifically mentions the socio-economic rights of people with disabilities.

The Americans with Disabilities Act (ADA) prohibits discrimination on the basis of disability in employment, state and local government, public accommodations, commercial facilities, transportation, and telecommunications.

Legal Case

❖ Disability Discrimination Acts (UK and others)

❖ USA, Section 508

❖ European, Draft standardisation mandate to CEN, CENELEC and ETSI in support of European accessibility requirements for public procurement of products and services in the ICT domain.

Mandate 376: Public Procurement of accessible ICT in Europe

"The European Commission and the European governments attach great value to an inclusive and barrier-free information society….."

The aim of the mandate M/376 is to enable the use of public procurement and practice for ICT´s to remove barriers to participation in the Information Society by disabled and older people. The mandate was given by the European Commission to the European Standards Organisations (ESOs) to come up with a solution for common requirements and conformance assessment.

1) Digital Inclusion depends on having individuals who;

❖ Have access to technology that meets their needs and requirements.

❖ Have the skills and knowledge to use networked ICT safely.

2) Digital Inclusion depends on the involvement of ICT professionals who;

- ❖ Understand user requirements for the complete range of users.
- ❖ Know of existing solutions that meet user needs.
- ❖ Develop new accessible solutions where required.
- ❖ Make a commitment to the use of accessible solutions.

3) Digital Inclusion depends on the involvement of governmental and other bodies who;

- ❖ Support financially and through legislation and regulation the introduction and maintenance of accessible digital infrastructure.
- ❖ Communicate with their citizens in an accessible manner.
- ❖ Promote digital inclusion through governmental agencies, education etc.

Thank you