



Examples of Best Practice in the Teaching of Inclusive Design

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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 included 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

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DfA@eInclusion

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

An EU FP6 Coordination Action with partners in 22 countries who are all EDeAN members

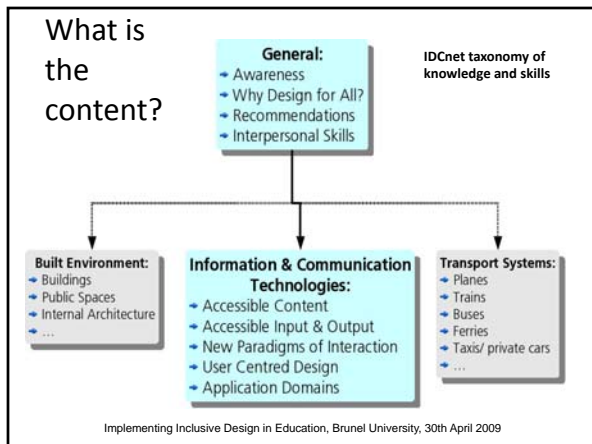
- Objectives include:
 - Information resource
 - Education and training
 - Engagement with industry
 - Communication
 - Promotion of knowledge and best practice

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EU survey of training in DfA ICT

- On-line survey publicised through national contact centres for EDeAN, direct emailing, relevant list servers in ICT, assistive technology and human computer interaction
- Initial results revealed few 'named' programmes or modules
- Follow-up request for information on elements *within* mainstream programmes

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Courses, modules and elements

Submitted survey results

Countries: 18
Providers: 35
Courses: 50

Course level

Undergraduate: 18
Masters: 12
Mixed: 11

Vocational: 5
ICT educators: 1
Not known: 3

Where were courses, modules or elements found?	
Austria	Italy
Belgium	Malta
Czech Republic	Norway
Denmark	Portugal
Finland	Slovakia
Germany	Slovenia
Greece	Spain
Hungary	Sweden
Ireland	UK

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Hidden Gems – 1 A small element

- Middlesex University
- Design for All used to influence a mainstream hardware computing course.
- First year BSc module: CCM1418 Introduction to Operating Systems, Architectures & Networks
- Element: input and output devices.

<http://www.youtube.com/watch?v=2BhHwk9qSvI>

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Hidden Gems – 2 Technological frontiers

- University of Bonn-Aachen, Germany
- MSc Media Informatics
- Module: Building Advanced Internet Services and Applications using Web Standards: Accessible Interfaces and New Devices
- Yehya Mohamad



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Objectives of the course I

Theoretical and practical knowledge:

- Building up advanced Internet services and applications with Web Standards
- Usable and accessible interfaces: desktop and mobile platforms

Manage and develop complex on-line applications

- Workflow procedures: content creation, interface development and user testing
- Web Publishing Frameworks
- Web Services
- Mobile devices

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Objectives of the course – II

Awareness Building

- How people with disabilities use the Web
- Various videos about disabilities
- Web Sites That Work! - WAI
- Disability and input/output devices: assistive technologies
- Policy environments and commercial benefits of Web accessibility and Web Standards. National and international policy environments. Business benefits: why implement Web accessibility
- Good practices - Bad practice

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Hidden Gem – 3 The complete approach

- Loughborough University
- BSc and MSc Ergonomics
- Module: Disability, Ageing and Inclusive Design
- Coursework for All: Assessment of Services for Independent Living
- Colette Nicolle, c.a.nicolle@lboro.ac.uk

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Disability, Ageing and Inclusive Design: Coursework

A critical assessment of the accessibility, usability, and acceptability of some aspect of everyday, independent living for older and disabled people

Objective:

- Integrate the knowledge covered earlier in the module
- Emphasise requirements capture and evaluation techniques with older and disabled people, and
- Rehearse more effective interpersonal skills for teamwork and communication in the context of Design for All

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The Brief

- Choose a service
- Consider different ways in which a person might obtain the service
- Not to be a detailed audit of web accessibility or built environment
- Encouraged to involve a user well known to the student and provided with ethical protocols (informed consent etc.)
- Alternatively, student can develop a Persona, describing his or her impairments, difficulties, needs and aspirations
- Literature review

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Multi-faceted aspects of inclusive design

Example in the context of library facilities:

- Disabled parking
- Wheelchair access
- Hearing induction loop
- Accessible computer facilities
- SuperNova software
- Electronic magnifier

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Hidden Gem – 4 The complete approach

- University of Dundee
- BSc/MSc Applied Computing
- School of Computing
- David Sloan

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Teaching Inclusive Design

Accessibility and inclusive design is pervasive throughout taught degrees:

- BSc Hons Applied Computing:
 - A component of all 3 first year courses,
 - 2 of 4 of second year courses,
 - 5 of 8 third year courses
 - 10 of 11 final year courses
- MSc Applied Computing: 3 of the 7 courses

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Developing empathy first

Students need the chance to empathise with diverse users

- Meeting them
- Talking to them
- Understanding their needs (and what they don't need)

THEN introduce 'technical' accessibility

- So guidelines, standards etc are applied with an understanding of WHY they are important

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Challenges

Helping students acknowledge the diversity of diversity

- ...age is not a reliable indicator of capability
- Avoiding seeing accessibility purely as an exercise in compliance
- Encouraging a thoughtful approach to inclusion

Understanding why accessibility is not considered as widely as we might expect

- Awareness of business resistance
- The value of a pragmatic approach to inclusive design; that is audience-sensitive

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New Gem MSc Digital Inclusion



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Thank-you

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We would also like to express our thanks to
all our colleagues who shared their
experiences with us.

The Design for All in ICT knowledge gap



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Key components of the Dundee approach

- Lucky to have a culture of inclusive design - but staff do their best to share experiences with students
 - Research inspired projects; anecdotes and stories
- Encouraging contact between students and diverse users
- Accessibility theme through most courses - so never optional!
- Accessibility not rewarded with extra marks - instead marks deducted for its absence
 - So it is treated as a basic requirement, not a negotiable extra

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