

Universal Design

User-centered Design: Accessibility = missing piece

Arthur Murphy, AccessIT Consultant

Understanding all users is “key”



Universal Design = usability++

- Why Accessibility Solutions benefit all users
 - Curb cut analogy
 - Original Goal: access for people with limited mobility
 - People who benefit:
 - People with strollers
 - Delivery people with handcarts
 - (if properly done!),
people who are blind
 - Others...



Universal Design = awareness++

- Accessibility Understanding: *roles*
 - Administrator
 - Architect / Designer
 - Developer
 - Content Manager / Editor
 - Procurement

- Other...

Designs: containers for functions



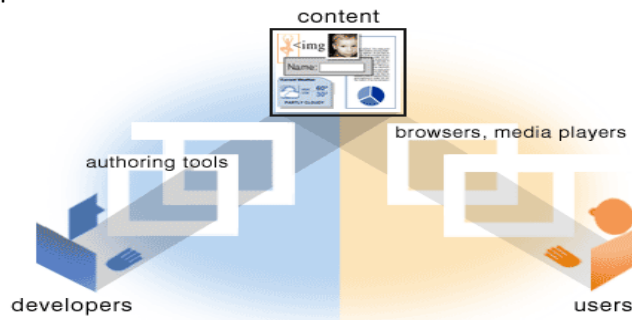
Integration of all Functions

- Functional requirements impact all
- No information source is an island
- Many separate standards make interoperability possible
- Software evolves
- Platforms evolve



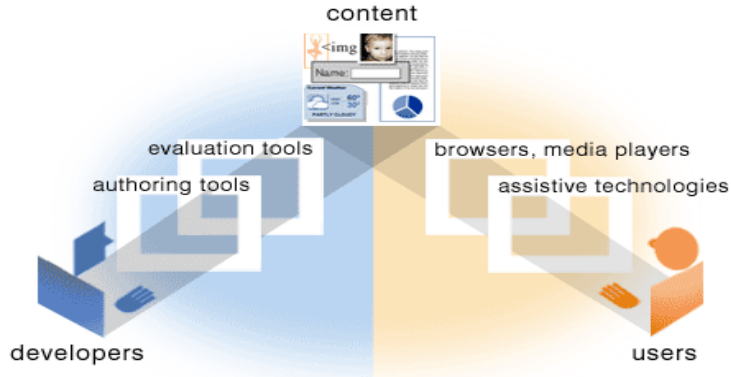
Information Path

- Standards are important



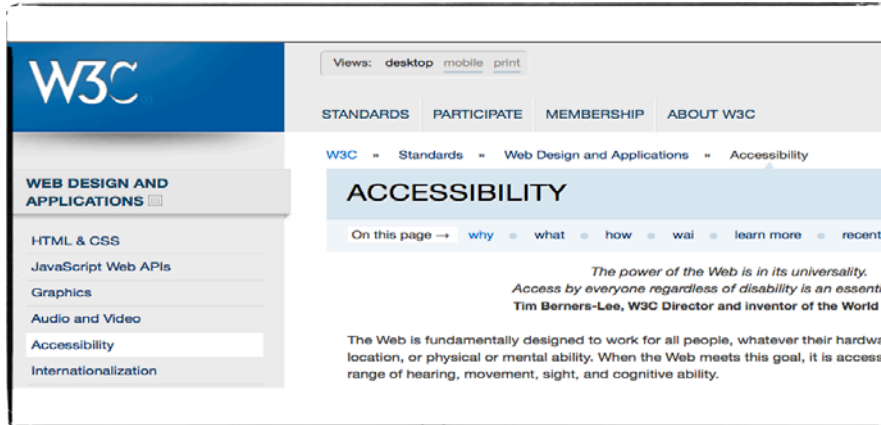
Information Path (2)

- Standards are vital!



Best Starting Point

- <http://www.w3.org/standards/webdesign/accessibility>



Concept of 508 Standards

- Types of Standards:
 - Specifications
 - e.g. "doorway = 36 inches wide"
(simple to understand, easy to measure)
 - Performance
 - e.g. "doorway = wide enough for 98% of population"
(understandable, measurement influenced by size)

[Note: information technology changes constantly]

Best 508 Starting Point

- <http://www.section508.gov/index.cfm>



Early Hierarchy of Technology

- Technical Standards (Subpart B): The standards provide criteria specific to various types of technologies including:
 - software applications and operating systems
 - web-based information or applications
 - telecommunication products
 - video and multimedia products
 - self contained, closed products (e.g., information kiosks, calculators, and fax machines)
 - desktop and portable computers

Caveat: Syntax vs. Semantics

- **Functional Performance Criteria (Subpart C)**
- The performance requirements of this section are intended for overall product evaluation and for technologies or components for which there is no specific requirement under the technical standards in Subpart B. These criteria are designed to ensure that the individual accessible components work together to create an accessible product. They cover operation, including input and control functions, operation of mechanical mechanisms, and access to visual and audible information. These provisions are structured to allow people with sensory or physical disabilities to locate, identify, and operate input, control and mechanical functions and to access the information provided, including text, static or dynamic images, icons, labels, sounds or incidental operating cues.

Simplified Version

- Can I navigate without the use of a mouse?
- Can I “see” non-text objects without sight?
- Can I “perceive” audio without hearing?
- Do I know how and where to “click” to get to the next page / function?
- Is the interface consistent with best practices & standards for PWD & assistive technology?

Intersection of ADA & 508++

- Evolution of collaborative convergence of standards: Global, National, State
 - UN: <http://www.un.org/disabilities/>

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Integration: standards in context

- Goal for each Agency:
 - Self assessment in light of:
 - Today's information and discussions
 - General knowledge of Wiki content
(next slides)
 - Knowledge of categories of Support System
(Full presentation in next Session)
 - Joint meetings to define scope of support during next six months *(last Session of the day)*

Wiki Content

- Extensions of W3C + Section 508

Pilot Support System

- Categories
 - Assistive Technology
 - Digital Content Accessibility
 - Voluntary Product Accessibility Template (VPAT)
 - Web Accessibility

(next Session)

Design vs. Retrofit

- We are always doing both... Discuss



ultimate design goal: Simplicity



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User-centered Design:
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