



The Accessible Technology Webinar Series is sponsored by the Great Lakes ADA Center and the Pacific ADA Center, both members of the ADA National Network.

**The Session is Scheduled to begin at 1:00 pm CDT
We will be testing sound quality periodically**

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Webinar Features

- Closed captioning – click **CC** icon (top of screen) or control-F8 and adjust your screen
- Customize your view – choose “View” from the menu bar at the top of the screen and choose the layout you prefer from the dropdown menu.
- Questions - type and submit questions in the Chat Area Text box or press control-M and enter text in the Chat Area
- Please do not use emoticons or hand-raising features during this session

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Thoughtless, careless, habitual, **accessible** Web authoring?

Jutta Treviranus

Inclusive Design Research Centre
OCAD University



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Almost anyone can and is creating a Website

- 900 million Facebook users
- 30 billion apps downloaded in 2011



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Digital Exclusion

- access to Websites no longer an option
- new entranceway to government services, commerce, education, employment, recreation, social engagement, civic engagement....
- estimated social and economic cost of digital exclusion (55.2 billion annually in the US)



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Don't we have WCAG for this?

- Web Content Accessibility Guidelines 2.0
- Enshrined in legislation in more than 40 jurisdictions globally
- Reflected in Section 508
- Hundreds of courses and training programs
- Many checking tools

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But.....

- Most governments are breaking their own laws
- Little progress in compliance
- Seen as impediment to innovation
- Most authors not aware of WCAG
- Some not motivated to comply
- Many find it hard to understand
- Easier to create a Website than to apply WCAG 2.0



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Yes But... Almost Everyone Uses an Authoring Tool or Development Toolkit

- Convert to HTML
- Learning content management system
- Wiki, Blog
- Social Networking tool
- Cloud based applications
- Software development toolkits



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Authoring Tool Accessibility Guidelines

1. Ensuring that authoring tools are accessible to authors with disabilities
 - Recognizing that people with disabilities must be producers not just consumers of Web content
2. Supporting the creation of accessible Web content
 - Recognizing that many Web authors may not know or care about WCAG

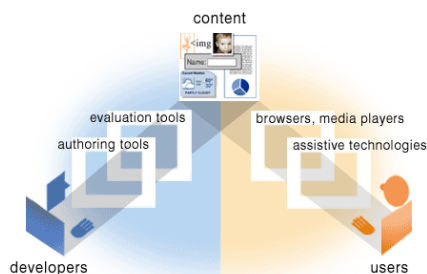


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W3C-WAI Model

- Web Content Accessibility Guidelines (WCAG) 2.0 Recommendation:
 - Guidelines for making Web content more accessible.
- Authoring Tools Accessibility Guidelines (ATAG) 2.0 Working Draft (1.0 is Rec):
 - Guidelines for: (1) making authoring tools more accessible to authors and (2) supporting the production of accessible content by all authors.
- User Agent Accessibility Guidelines (UAAG) 2.0 Working Draft (1.0 is Rec):
 - Guidelines for making user agents (browsers, media players) more accessible to end users.



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ATAG 2.0

- Version 1.0 was published in 1999.
- Version 2.0 is nearing completion.
- Applies to:
 - WYSIWYG editors, plain text editors
 - conversion tools (e.g., "Save as HTML")
 - blogging tools, wikis, online forums, email clients
 - multimedia authoring
 - CMS systems,
 - Etc.



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ATAG 2.0: Definition of Authoring Tool

- Any web-based or non-web-based application(s) that can be used by authors (alone or collaboratively) to create or modify web content for use by other people (other authors or end users).

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ATAG 2.0: Supports WCAG 2.0

- ATAG 2.0 uses the Web Content Accessibility Guidelines (WCAG) as the determinant of Web content accessibility.
- ATAG 2.0 has special checkpoints related to checking, repair, etc. of content that take their level directly from WCAG.

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ATAG 2.0: Accessible Authoring UI

- **Part A: Make the authoring tool user interface accessible**
- Principle A.1. Authoring tool user interfaces must follow applicable accessibility guidelines
 - A.1.1. (For the authoring tool user interface) Ensure that web-based functionality is accessible
 - A.1.2. (For the authoring tool user interface) Ensure that non-web-based functionality is accessible
- Principle A.2. Editing-views must be perceivable
 - A.2.1. (For the authoring tool user interface) Make alternative content available to authors
 - A.2.2. (For the authoring tool user interface) Editing-view presentation can be programmatically determined

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ATAG 2.0: Accessible Authoring UI

- Principle A.3. Editing-views must be operable
 - A.3.1. (For the authoring tool user interface) Provide keyboard access to authoring features
 - A.3.2. (For the authoring tool user interface) Provide authors with enough time
 - A.3.3. (For the authoring tool user interface) Help authors avoid flashing that could cause seizures
 - A.3.4. (For the authoring tool user interface) Enhance navigation and editing via content structure
 - A.3.5. (For the authoring tool user interface) Provide text search of the content
 - A.3.6. (For the authoring tool user interface) Manage preference settings
 - A.3.7. (For the authoring tool user interface) Ensure that previews are as accessible as existing user agents
- Principle A.4. Editing-views must be understandable
 - A.4.1. (For the authoring tool user interface) Help authors avoid and correct mistakes
 - A.4.2. (For the authoring tool user interface) Document the user interface including all accessibility features

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ATAG 2.0: Accessible content production

- We shouldn't rely on the average author to implement WCAG on their own because...
 - accessibility requirements can be complex to manage (e.g. keeping navigation consistent),
 - most authors are not (nor do they wish to be) accessibility experts (and WCAG is a technical document, on par with a format recommendation),
 - the delivery of Web content is becoming more complex,
 - and tools are being produced that hide many of the low-level details of the final content.

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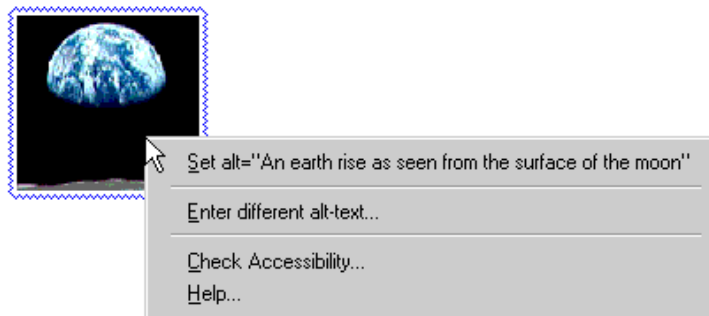
ATAG 2.0: Accessible content production

- **Part B: Support the production of accessible content**
- Principle B.1: Fully automatic processes must produce accessible content
 - B.1.1. Ensure automatically specified content is accessible
 - B.1.2. Ensure accessibility information is preserved
- Principle B.2: Authors must be supported in producing accessible content
 - B.2.1. Ensure accessible content production is possible
 - B.2.2. Guide authors to produce accessible content
 - B.2.3. Assist authors with managing alternative content for non-text content
 - B.2.4. Assist authors with accessible templates
 - B.2.5. Assist authors with accessible pre-authored content
- Principle B.3: Authors must be supported in improving the accessibility of existing content
 - B.3.1. Assist authors in checking for accessibility problems
 - B.3.2. Assist authors in repairing accessibility problems
- Principle B.4. Authoring tools must promote and integrate their accessibility features
 - B.4.1. Ensure the availability of features that support the production of accessible content
 - B.4.2. Ensure that documentation promotes the production of accessible content

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ATAG 2.0: Automating Accessibility

- Authoring tools need to support accessibility in the same way as they support correct syntax and spelling:



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ATAG 2.0: Automating Accessibility

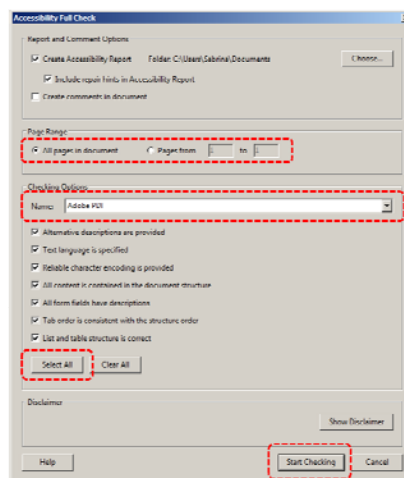
- In case people think developers aren't paying attention (from the iPhone Accessibility Programming Guide)....



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Integrated Accessibility Checking

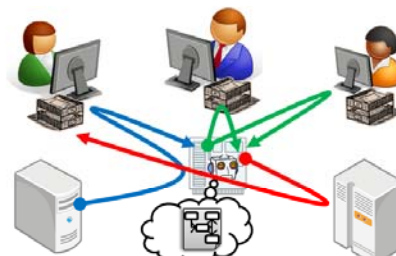
- Checking while authoring
- Support in repairing identified errors



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Integrating Accessible Authoring into Organizational Workflow

- Accessibility a routine and integrated part of organizational processes
- Integrating tools that support accessible authoring
- Part of design and development from start not just a quality assurance gate to pass through
- Accessibility features enabled by default
- Part of procurement requirements



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Efficient Accessibility

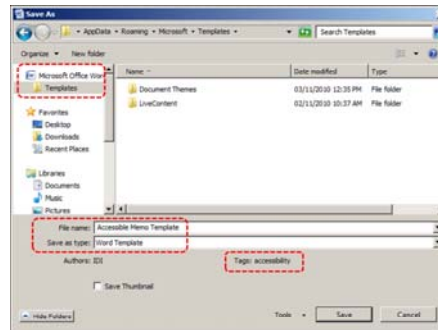
- Accessible reused components (e.g., image library, institutional logo, prescribed navigation bar)
- Accessible Templates
- Accessible Content Management System



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Templates, templates, templates

- Done right once



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Procure the Right Tools

- Provide vendors with detailed accessibility criteria rather than allowing general high-level statements.
- Clearly state the seriousness with which a false accessibility claim would be viewed.
- Have knowledgeable staff verify as many of the accessibility claims made by vendors as practically possible.



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Developing Accessible Apps and Services

- Development Tools that Support Accessibility
 - Component Libraries
 - Toolkits
 - Design Pattern Libraries



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Building Blocks that...

- Integrate accessible styling
- Enable full keyboard access
- Are screen reader compatible
- Include ARIA markup
- Reusable, flexible chunks of functionality
- <http://fluidproject.org>

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For Example: Fluid Infusion

- Flexible markup ensures you're free to change component designs as you see fit, without worrying about breaking JavaScript code
- Infusion uses a powerful events system to notify your code when something has happened, so that you can take interactions even further
- No black boxes: everything in Infusion is designed to be modified, reworked, and adapted to suit your needs
- Ideal for portals, mashups, and content management systems: Infusion is fully namespaced and plays nice with other code
- Infusion comes with a lightweight and convenient CSS library to help you quickly flesh out your layouts

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The screenshot shows the Fluid Infusion website homepage. At the top, the Fluid logo is displayed with the tagline "Designing software that works - for everyone." Below this is a navigation menu with links for Home, About Us, Projects, Partners, and Get Involved. A prominent banner announces "Infusion 1.4 is now available!" with buttons for "LEARN ABOUT infusion" and "DOWNLOAD infusion". The main content area is divided into two columns. The left column, titled "Fluid is an open-source software community that", lists key features: designing user interfaces, building web tools, teaching inclusive design, and integrating interface components into open source applications. It also includes a "Download Fluid Infusion" link and a description of the community. The right column, titled "Fluid News", features a recent article "And hack we did!" dated July 18, 2011, by Jess Mitchell, with a link to "ARIA hacking at OCAD University with Fluid." Below the news section, five project logos are displayed: Infusion, Floe, Decapod, Collection Space, and Opencast.

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Components....



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Framework to Create Your Own Accessible Components

- Comprised of a number of low-level UI services intended to make user interface development in JavaScript and DHTML significantly easier.
- Framework services include drag-and-drop support, reusable AJAX connection strategies, DOM manipulation, keyboard handlers, and more.

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Infusion Framework

- A rich set of APIs for creating loosely-coupled models and views using a declarative and event-driven style.
- Built on top of jQuery, and embraces unobtrusive, functional techniques that promote less code and greater flexibility.
- Modular and interoperable,
- Everything about Infusion is open: its architecture, source code, and community
- <http://wiki.fluidproject.org/display/fluid/Infusion+Framework>

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To...
integrated, habitual, efficient, easy, accessible
Web content authoring that is accessible to all
potential authors

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Questions, thoughts, suggestion...

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Thank You

Thank you for participating in today's session.

Next scheduled session:

**OCTOBER 9, 2012 » WAVE WEB ACCESSIBILITY
EVALUATION TOOL**

Register for Accessible Technology Webinar Series: www.ada-audio.org or Call 877-232-1990 V/TTY

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