



## Introduction to Web Accessibility

**Voronezh State University**  
**Voronezh (Russia)**



## Introduction to Web Accessibility

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## WHAT IS WEB ACCESSIBILITY?



## What is Web Accessibility?

“The power of the Web is in its universality.  
Access by everyone regardless of disability is  
an essential aspect.”

Tim Berners-Lee,  
W3C Director and  
inventor of the World Wide Web



## What is Web Accessibility?

- Wikipedia:

*Web accessibility refers to the inclusive practice of making **websites usable by people of all abilities and disabilities**. When sites are correctly designed, developed and edited, **all users** can have **equal access to information and functionality**.*

Wikipedia: [http://en.wikipedia.org/wiki/Web\\_accessibility](http://en.wikipedia.org/wiki/Web_accessibility)



## What is Web Accessibility?

For example, when a site is coded with semantically meaningful HTML, with textual equivalents provided for images and with links named meaningfully, this helps **blind** users using text-to-speech software and/or text-to-Braille hardware. When text and images are large and/or enlargable, it is easier for **users with poor sight** to read and understand the content. When links are underlined (or otherwise differentiated) as well as coloured, this ensures that **color blind users** will be able to notice them.



## What is Web Accessibility?

When clickable links and areas are large, this helps **users who cannot control a mouse with precision**. When pages are coded so that users can navigate by means of the keyboard alone, or a single switch access device alone, this helps **users who cannot use a mouse or even a standard keyboard**.



## What is Web Accessibility?

When videos are closed captioned or a sign language version is available, **deaf and hard of hearing users** can understand the video.



## What is Web Accessibility?

When flashing effects are avoided or made optional, **users prone to seizures** caused by these effects are not put at risk. And when content is written in plain language and illustrated with instructional diagrams and animations, **users with dyslexia and learning difficulties** are better able to understand the content.





World Wide Web Consortium (W3C) - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Accesibilidad Ayuda

Anterior Siguiente Recargar Detener Inicio <http://www.w3.org/> Universidad de Alicante

Hgme Up 14 First Back Next Last M Document: More\* Links on this page

World Wide Web Consortium (W3C)

Views: desktop mobile print W3C por regiones Go

STANDARDS PARTICIPATE MEMBERSHIP ABOUT W3C Google

**STANDARDS**

- Web Design and Applications
- Web Architecture
- Semantic Web
- XML Technology
- Web of Services
- Web of Devices
- Browsers and Authoring Tools
- ... or view all

**WEB FOR ALL**

Terminado

Una descarga activa (11 minutos restante(s))

**W3C**

STANDARDS PARTICIPATE MEMBERSHIP ABOUT W3C

Google

**Last Call: Digital Signatures for Widgets**  
16 April 2010 | [Archive](#)

The Web Applications Working Group has published a Last Call Working Draft of Digital Signatures for Widgets. This document defines a profile of the XML Signature Syntax and Processing 1.1 specification to allow a widget package to be digitally signed. Widget authors and distributors can digitally sign widgets as a mechanism to ensure continuity of authorship and distributorship. Comments are welcome through 6 May. Learn more about the [Rich Web Client Activity](#).

**Associating Schemas with XML documents 1.0 (First Edition) Note Published**  
16 April 2010 | [Archive](#)

**Call for Review: XHTML Modularization 1.1 - Second Edition Proposed Edited Recommendation Published**

The World Wide Web Consortium (W3C) is an international community that develops standards to ensure the long-term growth of the Web. Join groups, and participate in [W3C blogs](#) and other discussion. We welcome your help to fulfill the W3C mission: to lead the Web to its full potential.

**W3C BLOG**

Why does the address bar show the tempolink instead of the permalink?  
19 April 2010 by Jonathan Rees

HTML5 Meetup - Paris  
31 March 2010 by Philippe Le Hégarat

Web Accessibility Initiative (WAI) - home page - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Accesibilidad Ayuda

Anterior Siguiente Recargar Detener Inicio <http://www.w3.org/WAI/> Universidad de Alicante

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Web Accessibility Initiative (WAI) - ...

Skip to content | Change text size or colors

**W3C** Web Accessibility initiative

WAI: Strategies, guidelines, resources to make the Web accessible to people with disabilities

W3C Home

**Web Accessibility Initiative (WAI) Home**

- Introducing Accessibility
- Guidelines & Techniques
- Managing Accessibility
- Evaluating Accessibility
- WAI Groups
- About WAI

- WAI Site Map
- Help with WAI Site
- あひる Translations
- RSS About RSS
- Search

"The power of the Web is in its universality. Access by everyone

**Web Accessibility Initiative (WAI)**

**Highlights**

**For Review: UAAG 2.0 and Implementing UAAG 2.0 Working Drafts**

WAI has published an updated Working Draft of the [User Agent Accessibility Guidelines \(UAAG\) 2.0](#). UAAG defines how browsers, media players, and other "user agents" should support accessibility for people with disabilities and work with assistive technologies. This draft adds requirements in seven new areas, including support for speech input, video playback controls, and a new section on conformance. It introduces a new supporting document, [Implementing UAAG 2.0](#), as a First Public Working Draft. WAI encourages you to review UAAG 2.0 and submit comments. See:

- [Call for Review: UAAG 2.0 and Implementing UAAG 2.0 Working Drafts](#)
- [User Agent Accessibility Guidelines \(UAAG\) Overview](#)

Please send comments by **16 April 2010**. (2010-March-11)

**Speak up! Tell organizations if their website is**

**WAI develops...**

- guidelines widely regarded as the international standard for Web accessibility
- support materials to help understand and implement Web accessibility
- resources, through international collaboration

**WAI welcomes...**

- participation from around the world
- volunteers to review, implement, and promote guidelines
- dedicated participants in working groups

**Announcements**

[Follow WAI on Twitter oridenti.ca](#)

**Events, Meetings, Presentations**

- [HTML Accessibility Task Force Meeting: 6-7 April 2010](#), hosted by RNIB, Birmingham, UK
- [At CHI 2010 in Atlanta, GA, USA on](#)

Terminado

Una descarga activa (10 minutos restante(s))



## What is Web Accessibility?

- W3C:

*Web accessibility means that people with disabilities can use the Web. More specifically, **Web accessibility means that people with disabilities can perceive, understand, navigate, and interact with the Web, and that they can contribute to the Web.** Web accessibility also benefits others, including older people with changing abilities due to aging.*

W3C: <http://www.w3.org/WAI/intro/accessibility.php>



## What is Web Accessibility?

- W3C:

***Web accessibility also benefits people without disabilities.** For example, a key principle of Web accessibility is designing Web sites and software that are flexible to meet different user needs, preferences, and situations. This flexibility also benefits people without disabilities in certain situations, such as people using a slow Internet connection, people with "temporary disabilities" such as a broken arm, and people with changing abilities due to aging.*

W3C: <http://www.w3.org/WAI/intro/accessibility.php>



# ASSISTIVE TECHNOLOGIES

AssistiveWare - Videos on computer accessibility - Mozilla Firefox

Archivo Editar Ver Historial Marcadores Herramientas Accessibility Ayuda

Anterior Siguiente Recargar Detener Inicio <http://www.assistiveware.com/videos.php> Universidad de Alicante

AssistiveWare - Videos on computer ...

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AssistiveWare videos on computer accessibility

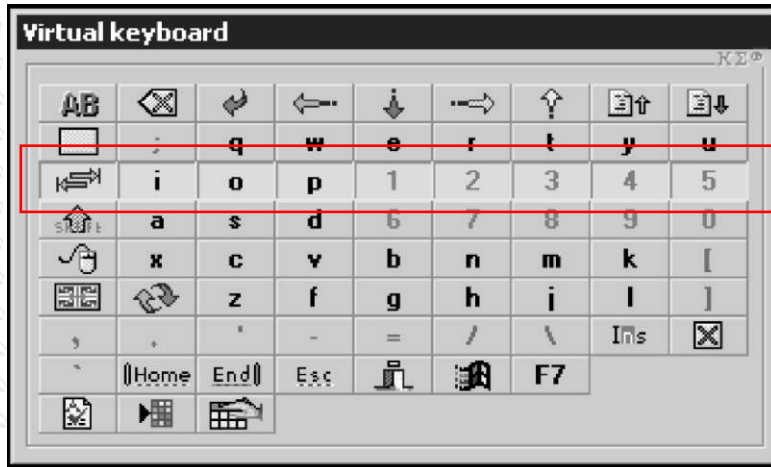
Select a video:

<b>A pivotal role in the household</b> QuickTime 7 <a href="#">view</a>   <a href="#">download</a> (40 MB) mp4 <a href="#">view</a>   <a href="#">download</a> (27 MB) iTunes & iPod <a href="#">view</a> YouTube <a href="#">YouTube</a>	<b>Everything I can't do in the real world I can do with my Mac</b> QuickTime 7 <a href="#">view</a>   <a href="#">download</a> (35 MB) mp4 <a href="#">view</a>   <a href="#">download</a> (19 MB) iTunes & iPod <a href="#">view</a> YouTube & TeacherTube <a href="#">YouTube</a>   <a href="#">TeacherTube</a>	<b>Me and my computer</b> QuickTime 7 <a href="#">view</a>   <a href="#">download</a> (46 MB) mp4 <a href="#">view</a>   <a href="#">download</a> (53 MB) iTunes & iPod <a href="#">view</a> YouTube & TeacherTube <a href="#">TeacherTube</a>	<b>One Thumb to Rule Them All</b> QuickTime 7 <a href="#">view</a>   <a href="#">download</a> (40 MB) mp4 <a href="#">view</a>   <a href="#">download</a> (47 MB) iTunes & iPod <a href="#">view</a> YouTube & TeacherTube <a href="#">YouTube</a>   <a href="#">TeacherTube</a>

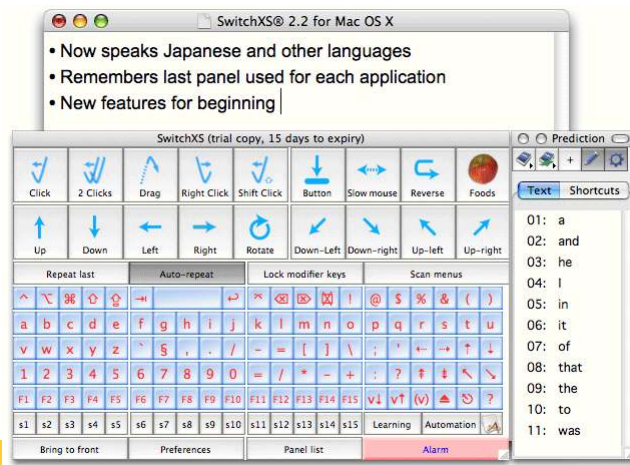
Terminado 2 descargas activas (11 minutos restante(s))

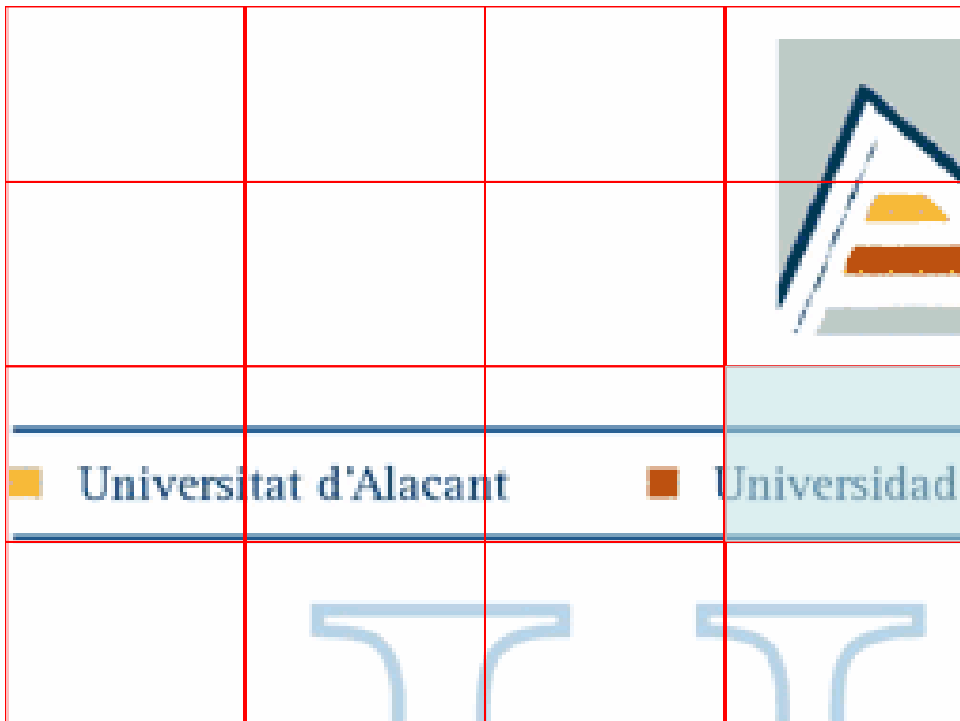
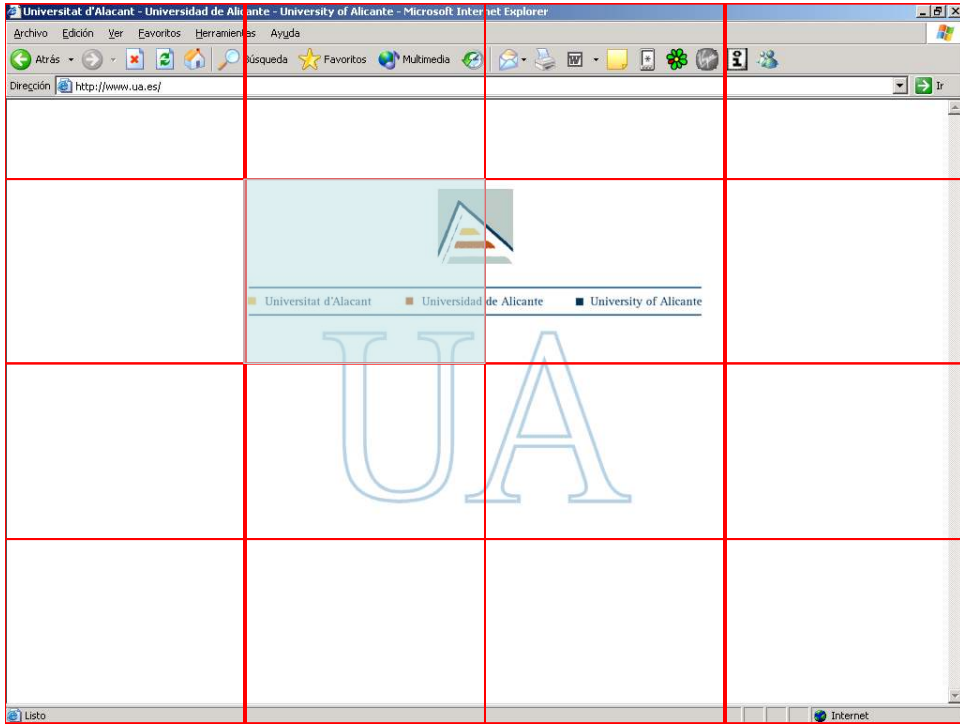


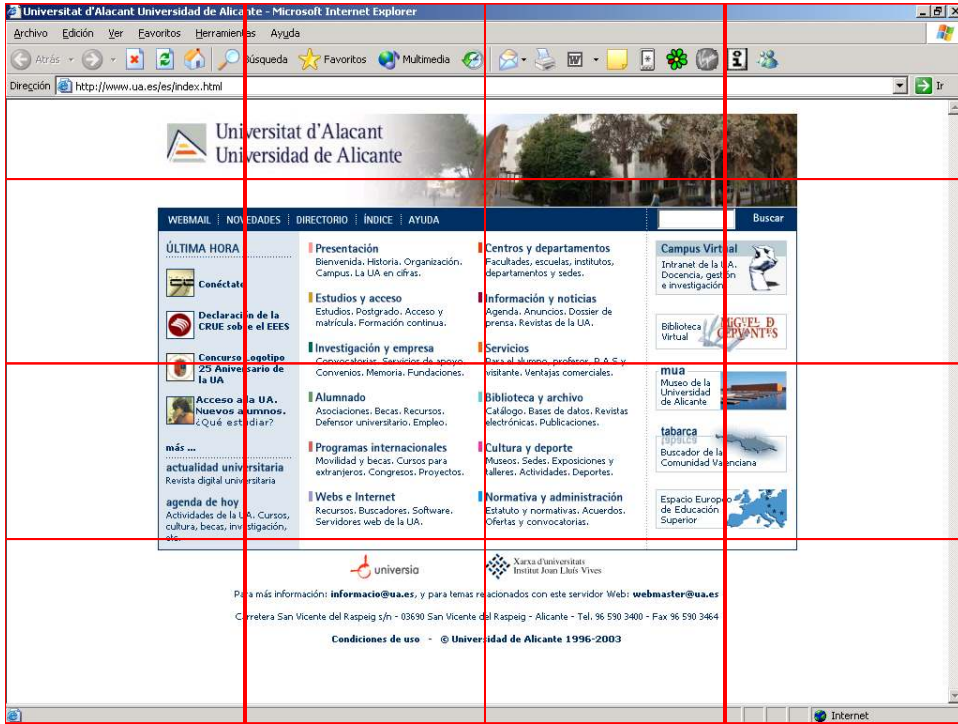
## Input Devices



## Input Devices







## Input Devices

- DEMO
  - Microsoft on screen virtual keyboard





## Input Devices



## Input Devices



*(Sip-Puff Switch)*



*(Grasp Switch)*



*(Flex Switch)*



## Input Devices



*(Microlight Switch)*



*(Pillow Switch)*



*(IR Switch)*



## Input Devices

- Reduced keyboard





## Input Devices

- Large keyboard



## Input Devices

- Protected keyboard



## Input Devices

- One hand keyboard



## Input Devices

- Braille keyboard



## Input Devices

- Trackball



## Input Devices

- Head mouse







## Input Devices

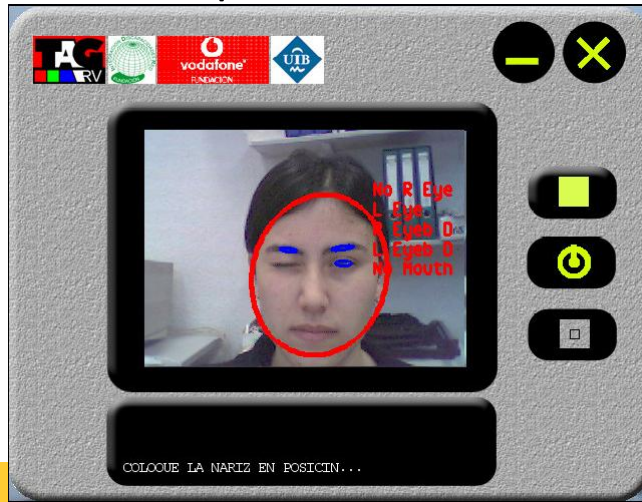


## Input Devices

- Facial recognition



## Input Devices



## Input Devices

- Special keyboards





## Input Devices

- Voice control (speech recognition):
  - Example:
    - IBM ViaVoice
    - Dragon NaturallySpeaking



## Output Devices

- Standard:
  - Screen or printer
- Screen magnifier
- Speech synthesizer
- Braille line
- Combination



## Output Devices

- Standard:
  - For users with poor sight (not for blind users)
  - High resolution display 21" (or bigger)
  - Display magnifier:
    - Example: Beam Scope TV Screen Magnifier 12 - 15 inches
    - Duplicates the size of the screen (not the resolution)





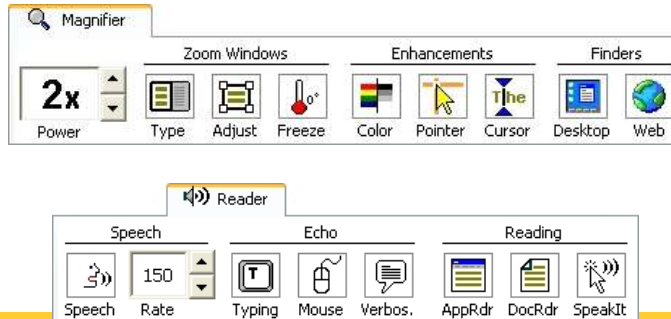
## Output Devices

- Screen magnifier:
  - By software
  - For users with poor sight (not for blind users)



## Output Devices

- Example:
  - ZoomText Screen Magnifier/Screen Reader



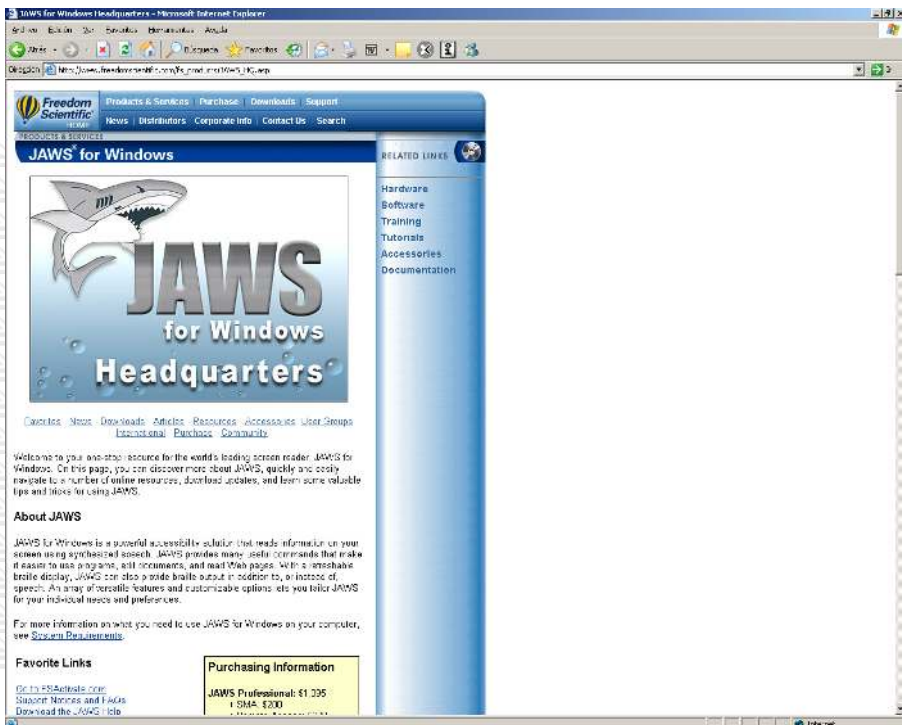
## Output Devices

- DEMO
  - Microsoft Magnifier



## Output Devices

- Speech synthesizer:
  - Screen reader
  - Problems to say acronyms, dates, and numbers
  - Impossibility to say images and graphics





## Output Devices

- DEMO
  - JAWS



## Output Devices

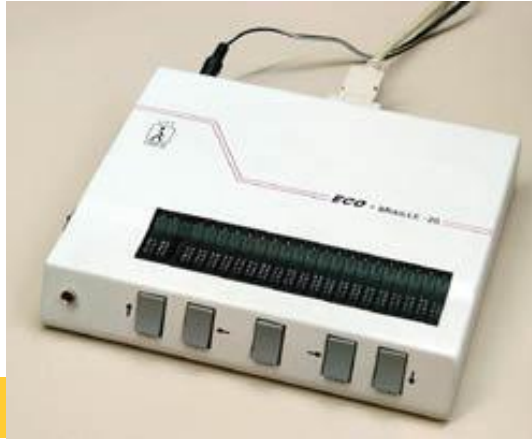
- DEMO
  - Microsoft Narrator





## Output Devices

- Braille line:



## Output Devices





## Output Devices

- Braille line and Braille keyboard:



## Output Devices





## WEB ACCESSIBILITY MYTHS



### Web accessibility myths

1. Creating a text-only equivalent is sufficient
2. It's complicated and expensive to make my website accessible
3. Accessible and attractive web design can't go together
4. Accessible websites stifle creativity

Webcredible: <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/myths.shtml>



## Web accessibility myths

5. My site visitors don't have a problem accessing my website
6. Web accessibility places restrictions on the web page design
7. Blind and disabled people don't use the Internet

Webcredible: <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/myths.shtml>



## DESIGN MISTAKES



## Top Ten Web Design Mistakes of 2005

1. Legibility Problems
2. Non-Standard Links
3. Flash
4. Content That's Not Written for the Web
5. Bad Search
6. Browser Incompatibility
7. Cumbersome Forms
8. No Contact Information or Other Company Info
9. Frozen Layouts with Fixed Page Widths
10. Inadequate Photo Enlargement

Useit (2005): <http://www.useit.com/alertbox/designmistakes.html>



## Top-10 Application-Design Mistakes

1. Non-Standard GUI Controls
  1. Looking Like a GUI Control Without Being One
2. Inconsistency
3. No Perceived Affordance
  1. Tiny Click Targets
4. No Feedback
  1. Out to Lunch Without a Progress Indicator
5. Bad Error Messages
6. Asking for the Same Info Twice
7. No Default Values
8. Dumping Users into the App
9. Not Indicating How Info Will Be Used
10. System-Centric Features

Useit (2008): <http://www.useit.com/alertbox/application-mistakes.html>



## 10 common Web design mistakes to watch out for

1. Failing to provide information that describes your Web site
2. Skipping alt and title attributes
3. Changing URLs for archived pages
4. Not dating your content
5. Creating busy, crowded pages

Tech Republic (2007): <http://www.techrepublic.com/blog/10things/10-common-web-design-mistakes-to-watch-out-for/259>



## 10 common Web design mistakes to watch out for

6. Going overboard with images
7. Implementing link indirection, interception, or redirection
8. Making new content difficult to recognize or find
9. Displaying thumbnails that are too small to be helpful
10. Forgoing Web page titles

Tech Republic (2007): <http://www.techrepublic.com/blog/10things/10-common-web-design-mistakes-to-watch-out-for/259>



## ACCESSIBILITY MISTAKES



## Seven accessibility mistakes you don't want to make

1. Believing in products without putting them to the test
2. Taking too much responsibility
3. Planning only for the worst-case scenario
4. Sharing problems with the visitor
5. Trying to solve problems outside our area of experience
6. Hiding or overriding accessibility/usability enhancements
7. Catering to your client—not their clients



## 10 common errors when implementing accessibility

1. Don't use verbose ALT text
2. Don't use random characters to separate links
3. Don't insert text into empty form fields for the sake of it
4. Don't use access keys
5. Don't use the table summary (unless it actually adds value)

Webcredible (2008): <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/errors.shtml>



## 10 common errors when implementing accessibility

6. Don't forget about the content
7. Don't worry too much about accessibility statements
8. Don't agonise over acronyms and abbreviations
9. Don't change the tab order (unless you have a very good reason to do so)
10. Don't forget to listen with a screen reader

Webcredible (2008): <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/errors.shtml>

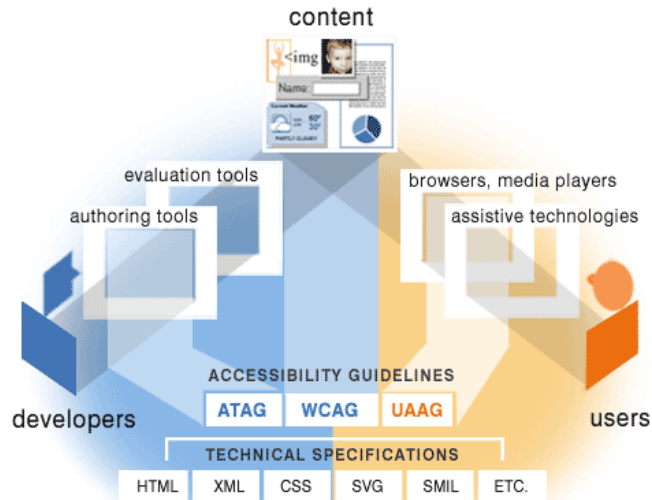




## WAI

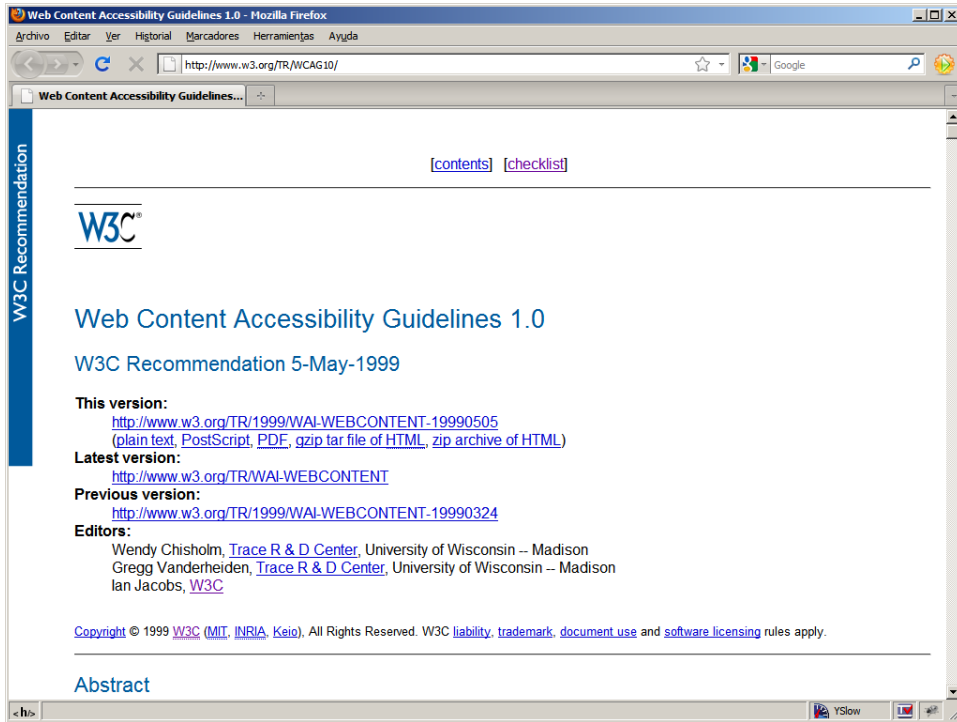
The screenshot shows the WAI homepage with the following content:

- W3C Home**
  - Web Accessibility Initiative (WAI) Home
  - Introducing Accessibility
  - Guidelines & Techniques
  - Managing Accessibility
  - Evaluating Accessibility
  - WAI Groups
  - About WAI
- WAI develops...**
  - guidelines widely regarded as the international standard for Web accessibility
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- Announcements**
  - Follow WAI on Twitter oridenti.ca
  - Events, Meetings, Presentations**
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- Web Accessibility Initiative (WAI)**
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  - For Review: UAAG 2.0 and Implementing UAAG 2.0 Working Drafts**
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  - Please send comments by **16 April 2010**. (2010-March-11)
  - Speak up! Tell organizations if their website is**



## WCAG 1.0





## WCAG 1.0

- Web Content Accessibility Guidelines 1.0
  - W3C Recommendation 5-May-1999
- 14 guidelines
  - 65 checkpoints



## WCAG 1.0

1. Provide equivalent alternatives to auditory and visual content.
2. Don't rely on color alone.
3. Use markup and style sheets and do so properly.
4. Clarify natural language usage
5. Create tables that transform gracefully.
6. Ensure that pages featuring new technologies transform gracefully.
7. Ensure user control of time-sensitive content changes.



## WCAG 1.0

8. Ensure direct accessibility of embedded user interfaces.
9. Design for device-independence.
10. Use interim solutions.
11. Use W3C technologies and guidelines.
12. Provide context and orientation information.
13. Provide clear navigation mechanisms.
14. Ensure that documents are clear and simple.



## WCAG 1.0

- Each checkpoint has a priority level based on the checkpoint's impact on accessibility:
  - **Priority 1:** A Web content developer must satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use Web documents.



## WCAG 1.0

- **Priority 2:** A Web content developer should satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing Web documents.
- **Priority 3:** A Web content developer may address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to Web documents.



## WCAG 1.0

- Conformance:



– Conformance Level "A": all Priority 1 checkpoints are satisfied;



– Conformance Level "Double-A": all Priority 1 and 2 checkpoints are satisfied;



– Conformance Level "Triple-A": all Priority 1, 2, and 3 checkpoints are satisfied;



## WCAG 1.0 – Priority 1

### In General

1.1 Provide a text equivalent for every non-text element (e.g., via "alt", "longdesc", or in element content). This includes: images, graphical representations of text (including symbols), image map regions, animations (e.g., animated GIFs), applets and programmatic objects, ascii art, frames, scripts, images used as list bullets, spacers, graphical buttons, sounds (played with or without user interaction), stand-alone audio files, audio tracks of video, and video.

2.1 Ensure that all information conveyed with color is also available without color, for example from context or markup.

4.1 Clearly identify changes in the natural language of a document's text and any text equivalents (e.g., captions).



## WCAG 1.0 – Priority 1

### In General

- 6.1 Organize documents so they may be read without style sheets.  
For example, when an HTML document is rendered without associated style sheets, it must still be possible to read the document.
- 6.2 Ensure that equivalents for dynamic content are updated when the dynamic content changes.
- 7.1 Until user agents allow users to control flickering, avoid causing the screen to flicker.
- 14.1 Use the clearest and simplest language appropriate for a site's content.



## WCAG 1.0 – Priority 1

### And if you use images and image maps

- 1.2 Provide redundant text links for each active region of a server-side image map.
- 9.1 Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

### And if you use tables

- 5.1 For data tables, identify row and column headers.
- 5.2 For data tables that have two or more logical levels of row or column headers, use markup to associate data cells and header cells.





## WCAG 1.0 – Priority 1

### And if you use frames

12.1 Title each frame to facilitate frame identification and navigation.

### And if you use applets and scripts

6.3 Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. If this is not possible, provide equivalent information on an alternative accessible page.



## WCAG 1.0 – Priority 1

### And if you use multimedia

1.3 Until user agents can automatically read aloud the text equivalent of a visual track, provide an auditory description of the important information of the visual track of a multimedia presentation.

1.4 For any time-based multimedia presentation (e.g., a movie or animation), synchronize equivalent alternatives (e.g., captions or auditory descriptions of the visual track) with the presentation.







## WCAG 1.0 – Priority 1

### And if all else fails

11.4 If, after best efforts, you cannot create an accessible page, provide a link to an alternative page that uses W3C technologies, is accessible, has equivalent information (or functionality), and is updated as often as the inaccessible (original) page.



## WCAG 1.0 – Priority 2

### In General

2.2 Ensure that foreground and background color combinations provide sufficient contrast when viewed by someone having color deficits or when viewed on a black and white screen. [Priority 2 for images, Priority 3 for text].

3.1 When an appropriate markup language exists, use markup rather than images to convey information.

3.2 Create documents that validate to published formal grammars.

3.3 Use style sheets to control layout and presentation.

3.4 Use relative rather than absolute units in markup language attribute values and style sheet property values.





## WCAG 1.0 – Priority 2

### In General

- 3.5 Use header elements to convey document structure and use them according to specification.
- 3.6 Mark up lists and list items properly.
- 3.7 Mark up quotations. Do not use quotation markup for formatting effects such as indentation.
- 6.5 Ensure that dynamic content is accessible or provide an alternative presentation or page.
- 7.2 Until user agents allow users to control blinking, avoid causing content to blink (i.e., change presentation at a regular rate, such as turning on and off).



## WCAG 1.0 – Priority 2

### In General

- 7.4 Until user agents provide the ability to stop the refresh, do not create periodically auto-refreshing pages.
- 7.5 Until user agents provide the ability to stop auto-redirect, do not use markup to redirect pages automatically. Instead, configure the server to perform redirects.
- 10.1 Until user agents allow users to turn off spawned windows, do not cause pop-ups or other windows to appear and do not change the current window without informing the user.
- 11.1 Use W3C technologies when they are available and appropriate for a task and use the latest versions when supported.





## WCAG 1.0 – Priority 2

### In General

- 11.2 Avoid deprecated features of W3C technologies.
- 12.3 Divide large blocks of information into more manageable groups where natural and appropriate.
- 13.1 Clearly identify the target of each link.
- 13.2 Provide metadata to add semantic information to pages and sites.
- 13.3 Provide information about the general layout of a site (e.g., a site map or table of contents).
- 13.4 Use navigation mechanisms in a consistent manner.



## WCAG 1.0 – Priority 2

### And if you use tables

- 5.3 Do not use tables for layout unless the table makes sense when linearized. Otherwise, if the table does not make sense, provide an alternative equivalent (which may be a linearized version).
- 5.4 If a table is used for layout, do not use any structural markup for the purpose of visual formatting.

### And if you use frames

- 12.2 Describe the purpose of frames and how frames relate to each other if it is not obvious by frame titles alone.





## WCAG 1.0 – Priority 2

### And if you use forms

10.2 Until user agents support explicit associations between labels and form controls, for all form controls with implicitly associated labels, ensure that the label is properly positioned.

12.4 Associate labels explicitly with their controls.



## WCAG 1.0 – Priority 2

### And if you use applets and scripts

6.4 For scripts and applets, ensure that event handlers are input device-independent.

7.3 Until user agents allow users to freeze moving content, avoid movement in pages.

8.1 Make programmatic elements such as scripts and applets directly accessible or compatible with assistive technologies [Priority 1 if functionality is important and not presented elsewhere, otherwise Priority 2.]

9.2 Ensure that any element that has its own interface can be operated in a device-independent manner.

9.3 For scripts, specify logical event handlers rather than device-dependent event handlers.





## WCAG 1.0 – Priority 3

### In General

- 4.2 Specify the expansion of each abbreviation or acronym in a document where it first occurs.
- 4.3 Identify the primary natural language of a document.
- 9.4 Create a logical tab order through links, form controls, and objects.
- 9.5 Provide keyboard shortcuts to important links (including those in client-side image maps), form controls, and groups of form controls.
- 10.5 Until user agents (including assistive technologies) render adjacent links distinctly, include non-link, printable characters (surrounded by spaces) between adjacent links.



## WCAG 1.0 – Priority 3

### In General

- 11.3 Provide information so that users may receive documents according to their preferences (e.g., language, content type, etc.)
- 13.5 Provide navigation bars to highlight and give access to the navigation mechanism.
- 13.6 Group related links, identify the group (for user agents), and, until user agents do so, provide a way to bypass the group.
- 13.7 If search functions are provided, enable different types of searches for different skill levels and preferences.
- 13.8 Place distinguishing information at the beginning of headings, paragraphs, lists, etc.





## WCAG 1.0 – Priority 3

### In General

- 13.9 Provide information about document collections (i.e., documents comprising multiple pages.).
- 13.10 Provide a means to skip over multi-line ASCII art.
- 14.2 Supplement text with graphic or auditory presentations where they will facilitate comprehension of the page.
- 14.3 Create a style of presentation that is consistent across pages.



## WCAG 1.0 – Priority 3

### And if you use images and image maps

- 1.5 Until user agents render text equivalents for client-side image map links, provide redundant text links for each active region of a client-side image map.

### And if you use tables

- 5.5 Provide summaries for tables.
- 5.6 Provide abbreviations for header labels.
- 10.3 Until user agents (including assistive technologies) render side-by-side text correctly, provide a linear text alternative (on the current page or some other) for all tables that lay out text in parallel, word-wrapped columns.





## WCAG 1.0 – Priority 3

### And if you use forms

10.4 Until user agents handle empty controls correctly, include default, place-holding characters in edit boxes and text areas.



## QUICK TIPS





## Quick Tips to Make Accessible Web Sites

1. **Images & animations:** Use the **alt** attribute to describe the function of each visual.
2. **Image maps.** Use the client-side **map** and text for hotspots.
3. **Multimedia.** Provide captioning and transcripts of audio, and descriptions of video.
4. **Hypertext links.** Use text that makes sense when read out of context. For example, avoid "click here."
5. **Page organization.** Use headings, lists, and consistent structure. Use **CSS** for layout and style where possible.

W3C: <http://www.w3.org/WAI/quicktips/>



## Quick Tips to Make Accessible Web Sites

6. **Graphs & charts.** Summarize or use the **longdesc** attribute.
7. **Scripts, applets, & plug-ins.** Provide alternative content in case active features are inaccessible or unsupported.
8. **Frames.** Use the **noframes** element and meaningful titles.
9. **Tables.** Make line-by-line reading sensible. Summarize.
10. **Check your work.** [Validate](#). Use tools, checklist, and guidelines at <http://www.w3.org/TR/WCAG>

W3C: <http://www.w3.org/WAI/quicktips/>





## Ten quick tests to check your website for accessibility

1. Check informational images for alternative text
2. Check decorative images for alternative text
3. "Listen" to video or audio content with the volume turned off
4. Check that forms are accessible
5. Ensure that text can be resized

Webcredible: <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/testing-web-accessibility.shtml>



## Ten quick tests to check your website for accessibility

6. Check your website in the Lynx browser
7. Check you can access all areas of your website without the use of a mouse
8. Check there's a site map
9. Ensure link text makes sense out of context
10. Check your web pages with an automated program

Webcredible: <http://www.webcredible.co.uk/user-friendly-resources/web-accessibility/testing-web-accessibility.shtml>



## AUDIT & TESTING



## Audit & Testing

- **Accessibility audit:**
  - An accessibility expert reviews your site, highlighting any accessibility issue
- **Accessibility testing:**
  - Real disabled users complete common tasks on your website whilst a moderator notes all problems they experience
- **Automated accessibility testing:**
  - An automated program evaluates your website against accessibility guidelines



## Audit & Testing

- Automated accessibility testing:
  - Literal interpretation of guidelines
  - Can't check any content issues
  - Can't check many coding issues
  - Outdated guidelines are used
  - Most guidelines aren't properly checked
  - Warnings may be misinterpreted



## Audit & Testing

- WCAG 1.0 Validation Method:
  - Validate accessibility with automatic tools and human review.
  - Automated methods are generally rapid and convenient but cannot identify all accessibility issues.
  - Human review can help ensure clarity of language and ease of navigation.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

- WCAG 1.0 Validation Method:
  - Begin using validation methods at the earliest stages of development.
  - Accessibility issues identified early are easier to correct and avoid.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

1. Use an automated accessibility tool and browser validation tool. Please note that software tools do not address all accessibility issues, such as the meaningfulness of link text, the applicability of a text equivalent, etc.
2. Validate syntax (e.g., HTML, XML, etc.).
3. Validate style sheets (e.g., CSS).
4. Use a text-only browser or emulator.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

5. Use multiple graphic browsers, with:
  5. sounds and graphics loaded,
  6. graphics not loaded,
  7. sounds not loaded,
  8. no mouse,
  9. frames, scripts, style sheets, and applets not loaded
6. Use several browsers, old and new.
7. Use a self-voicing browser, a screen reader, magnification software, a small display, etc.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

8. Use spell and grammar checkers. A person reading a page with a speech synthesizer may not be able to decipher the synthesizer's best guess for a word with a spelling error. Eliminating grammar problems increases comprehension.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

9. Review the document for clarity and simplicity. Readability statistics, such as those generated by some word processors may be useful indicators of clarity and simplicity. Better still, ask an experienced (human) editor to review written content for clarity. Editors can also improve the usability of documents by identifying potentially sensitive cultural issues that might arise due to language or icon usage.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## Audit & Testing

10. Invite people with disabilities to review documents. Expert and novice users with disabilities will provide valuable feedback about accessibility or usability problems and their severity.

W3C: <http://www.w3.org/TR/WCAG10/wai-pageauth.html#validation>



## MORE INFORMATION

The screenshot shows the W3C Web Accessibility Initiative (WAI) home page. The browser window title is "Web Accessibility Initiative (WAI) - home page - Mozilla Firefox". The address bar shows "http://www.w3.org/WAI/". The page content includes a navigation menu on the left, a main content area with a "Web Accessibility Initiative (WAI) Home" section, and several informational boxes on the right. A large URL "http://www.w3.org/WAI/" is overlaid on the page.

**W3C Home**

- Web Accessibility Initiative (WAI) Home
- Introducing Accessibility
- Guidelines & Techniques
- Managing Accessibility
- Evaluating Accessibility
- WAI Groups
- About WAI

**WAI Site Map**

- WAI Site Map
- Help with WAI Site
- あはれ本 Translations
- RSS** About RSS
- Search

"The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect."

**Web Accessibility Initiative (WAI)**

**Highlights**

**For Review: Evaluation and Report Language (EARL) 1.0 Schema**

For more information on EARL 1.0, see the formal schema of EARL 1.0, a vocabulary to express test results. EARL is a format to exchange, combine, and analyze results from different evaluation tools. See:

- Call for Review: Evaluation and Report Language (EARL) 1.0 Schema e-mail
- Evaluation and Report Language (EARL) Overview
- How WAI Develops Accessibility Guidelines through the W3C Process: Milestones and Opportunities to Contribute

Send comments by **26 May 2009**. (2009-04-28)

**How People with Disabilities Use the Web - Draft Introduced**

"How People with Disabilities Use the Web" provides detailed examples of people with different disabilities using Web sites, applications, browsers, and authoring tools. It is currently a draft, and will soon be updated to reflect current best practice.

**WAI develops...**

- guidelines widely regarded as the International standard for Web accessibility
- support materials to help understand and implement Web accessibility
- resources, through international collaboration

**WAI welcomes...**

- participation from around the world
- volunteers to review, implement, and promote guidelines
- dedicated participants in working groups

**Announcements**

Follow WAI on Twitter

**Events, Meetings, Presentations**

- At STC Technical Communication Summit in Atlanta, GA, USA on 3 and 4 May: "Unleashing Opportunities through Accessibility" and "Advancing Web Accessibility" presented by [Shawn Henry](#)



Universitat d'Alacant  
Universidad de Alicante

**Accesibilidad Web**

¿Qué es? Legislación Guía breve WCAG 1.0 WCAG 2.0 Hardware Software Herramientas de revisión Futuro  
Cursos Blog

## ¿Qué es la Accesibilidad Web?

### Definición

Normalmente la **accesibilidad web** se asocia con la idea de desarrollar páginas web que puedan ser utilizadas por las personas con discapacidad, tal como podéis leer en las siguientes definiciones:

**http://accesibilidadweb.dlsi.ua.es/**

La **accesibilidad Web** significa que personas con algún tipo de discapacidad van a poder hacer uso de la Web. En concreto, al hablar de **accesibilidad Web** se está haciendo referencia a un **diseño Web** que va a permitir que estas personas puedan percibir, entender, navegar e interactuar con la Web, aportando a su vez contenidos. La **accesibilidad Web** también beneficia a otras personas, incluyendo personas de edad avanzada que han visto mermadas sus habilidades a consecuencia de la edad.

Fuente: [Introducción a la Accesibilidad Web](#), [W3C](#).

La **accesibilidad web** o de la interfaz, indica la capacidad de acceso a la **Web** y a sus contenidos por todas las personas, independientemente de la **discapacidad** (física, intelectual o técnica) que presenten o de las que se deriven del contexto de uso (tecnológicas o ambientales). Esta cualidad está íntimamente relacionada con la **usabilidad**.

El máximo organismo dentro de la jerarquía de **Internet** que se encarga de promover la

Accesibilidad en la Web

Todo tipo de información sobre accesibilidad en la Web: noticias, software, hardware, consejos, guías de accesibilidad, WAI, Sección 508, etc.

**MARTES 19 DE MAYO DE 2009**

Video del seminario "Usabilidad e inclusión digital"

Alicante.

Publicado por Sergio en 13:07 0 comentarios

Etiquetas: [Cursos](#)

**MIÉRCOLES 6 DE MAYO DE 2009**

Control mental, a la española

El año pasado escribí la entrada [Más sobre control mental](#) donde comentaba el dispositivo [Emotiv EPOC](#) que se supone que permite controlar un ordenador con la mente sin la necesidad de implantar electrodos en el cerebro: es un casco que te colocas y a controlar el ordenador con el pensamiento. ¿Y dónde se compra esto? Pues el año pasado el fabricante decía que estaría disponible a finales del 2008, pero ahora dicen que será en 2009.

**¿Qué es la Accesibilidad Web?**

La **accesibilidad Web** significa que personas con algún tipo de discapacidad van a poder hacer uso de la Web. En concreto, al hablar de **accesibilidad Web** se está haciendo referencia a un **diseño Web** que va a permitir que estas personas puedan percibir, entender, navegar e interactuar con la Web, aportando a su vez contenidos. La **accesibilidad Web** también beneficia a otras personas, incluyendo personas de edad avanzada que han visto mermadas sus habilidades a consecuencia de la edad. [Introducción a la Accesibilidad Web](#), [W3C](#)

**Datos personales**

Sergio







**Dive Into Accessibility**  
**30 days to a more accessible web site**

This book answers two questions. The first question is "Why should I make my web site more accessible?" If you do not have a web site, this book is not for you. The second question is "How can I make my web site more accessible?" If you are not convinced by the first answer, you will not be interested in the second.

[Let's dive in.](#)

**Download Dive Into Accessibility**

- [Download as HTML](#)
- [Download as PDF](#)

**Read Dive Into Accessibility**

[Table of contents](#)  
All tips, in the order in which they were originally published. The recommended way to read the book for the first time.

[Tips by person](#)  
Here the tips are grouped by the people who benefit from them.

[Tips by disability](#)  
Here the tips are grouped by the disabilities that benefit from them. This includes both physical and technological disabilities.

[Tips by design principle](#)  
Here the tips are grouped by design principles proposed by the [W3C](#). All web pages should be perceivable, operable, navigable, understandable, and robust.

Search this site:

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<http://diveintoaccessibility.org/>