Web Accessibility: The User Experience

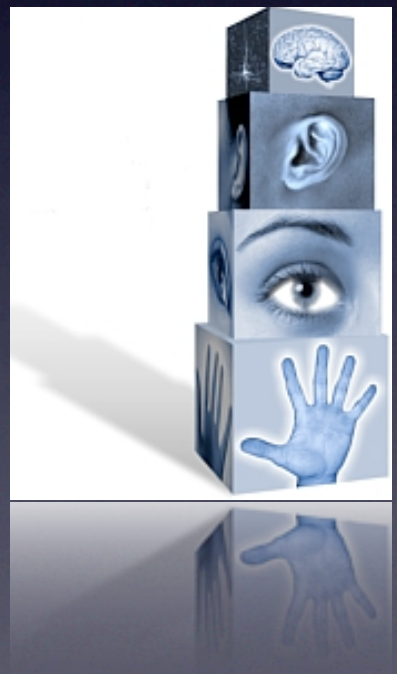
Cyndi Rowland Ph.D.
Utah State University

www.ncdae.org

www.webaim.org

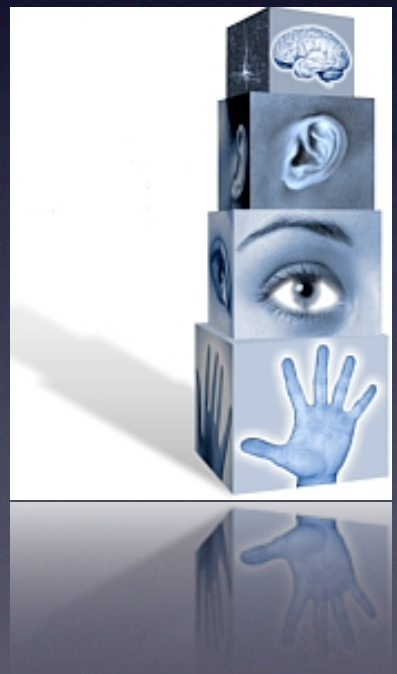
DBTAC webcast, August 2008

Our Brief Time Today . . .



Our Brief Time Today . . .

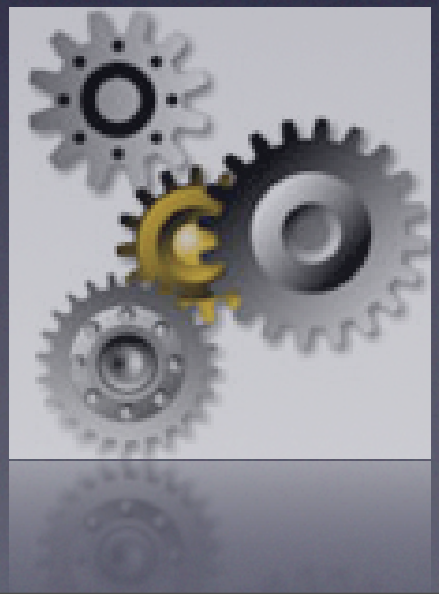
- Broader legal context
- User Experience
- Q&A



Legal issues

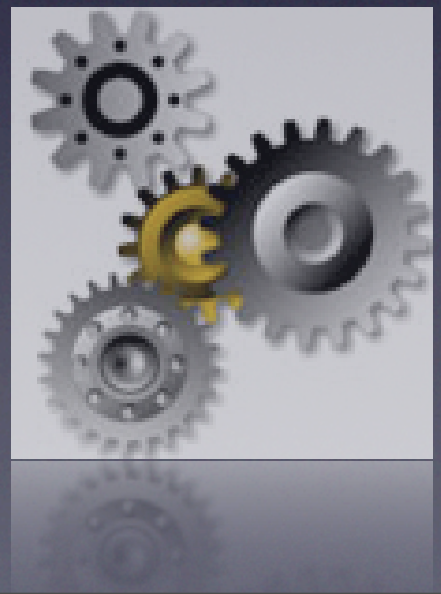
Individuals with Disabilities in an Online World

Expanded legal issues



Expanded legal issues

- Rehab Act
  - Section 504
  - Section 508
    (new regs presented to the Access Board)
- Telecom Act (Section 255)
- IDEA *(including NIMAS)*
- State Laws
- International Laws
  (watch UN CRPD)



Fundamental issue

Fundamental issue

- Accessibility and Accommodation
  - Effective
  - Timely
  - Reasonable

The User Experience

Individuals with Disabilities in an Online World

Who Does this Affect?

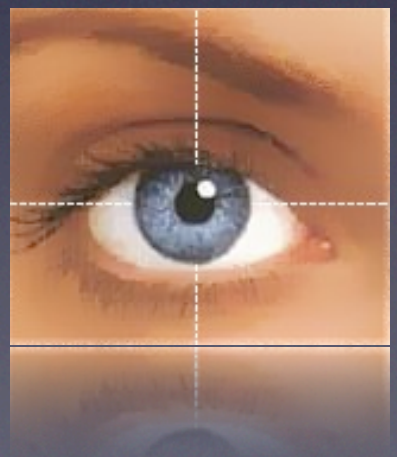
See http://www.webaim.org/intro/
http://www.webaim.org/intro/#video

Who Does this Affect?

- Those with difficulties in
  - Vision
  - Hearing
  - Motor function
  - Cognition
  - Seizure activity
  - Age related processes

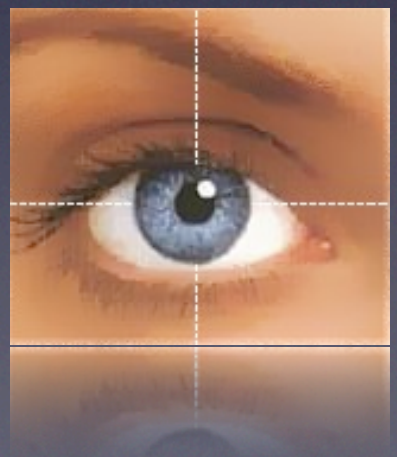
See http://www.webaim.org/intro/
http://www.webaim.org/intro/#video

What is the User Experience?



What is the User Experience?

- Those who are BLIND, color blind, or have low vision:
  - Article - www.webaim.org/articles/visual
  - Kyle's experience http://www.webaim.org/articles/visual/blind.php
  - Screen reader simulation - www.webaim.org/simulations/screenreader.php



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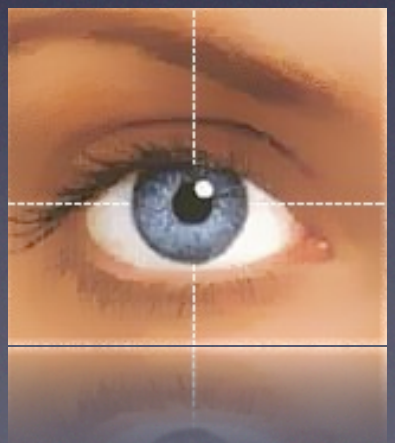
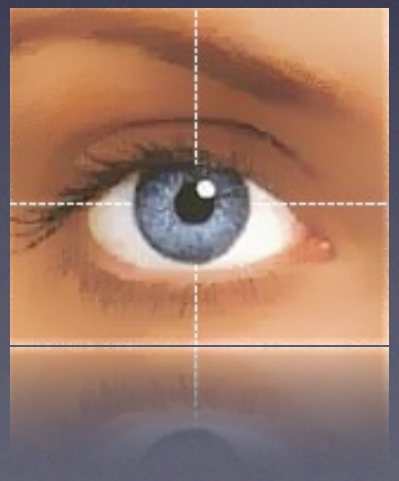


Some Issues

- Those who are BLIND and using a screen reader:
  - Every element of the page MUST be keyboard accessible
  - Text descriptions (ALT text) for all non-text elements
  - Proper HTML for their Assistive Technology
  - Web pages are linear & must be understandable
  - Associated data cells with headers
  - Options to skip repetitive navigation
  - Meaningful links. Avoid ‘click here’
  - Audio descriptions



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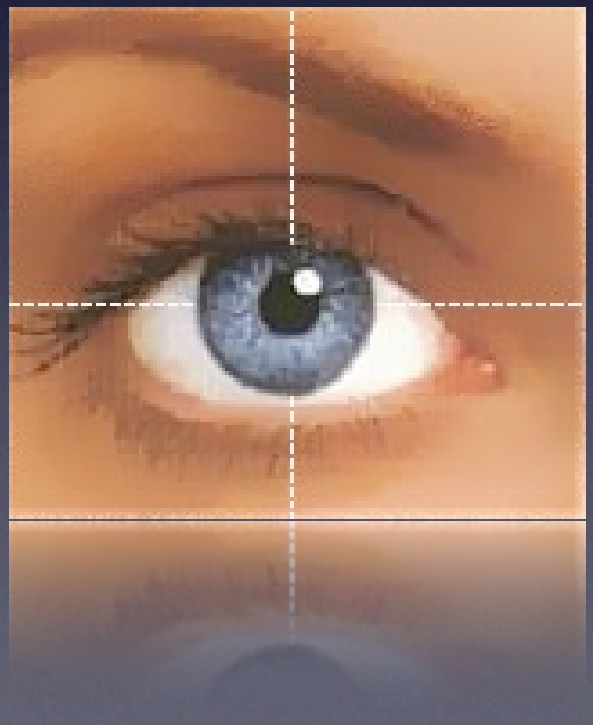


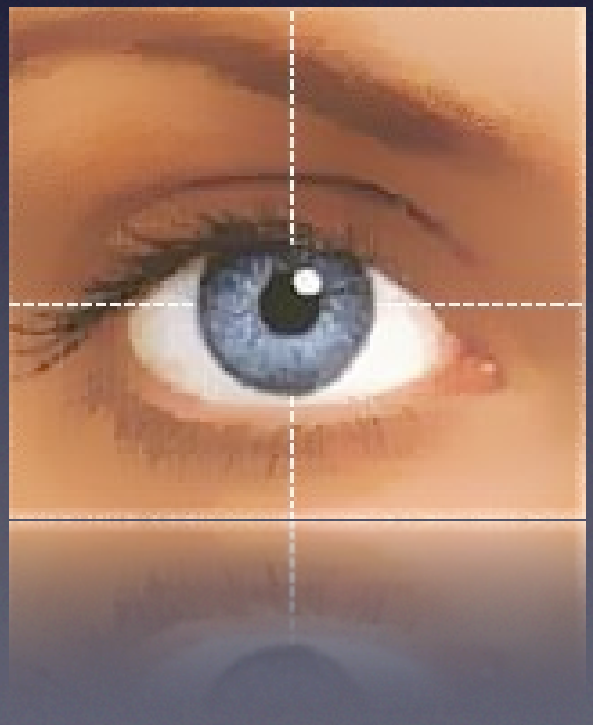
What is the User Experience?

- Those who are blind, COLOR BLIND, or have low vision:

  The green mushrooms listed here are OK to eat.

  The red mushrooms will kill you.

  - Amanita
  -Chanterelle
  - Porcini
  - Shitake
  - Tylopilus



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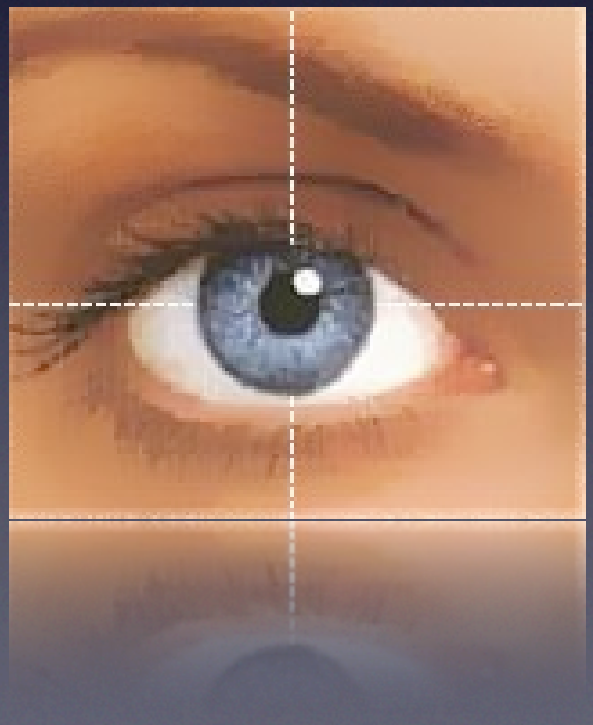
Resource
Vischeck.com



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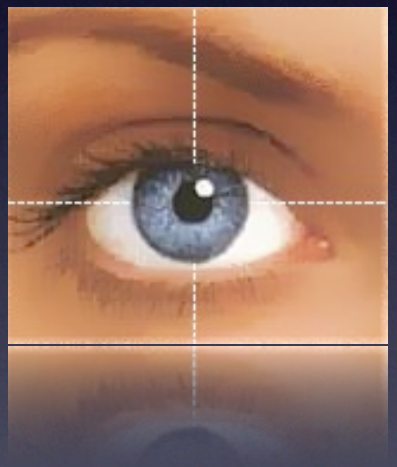
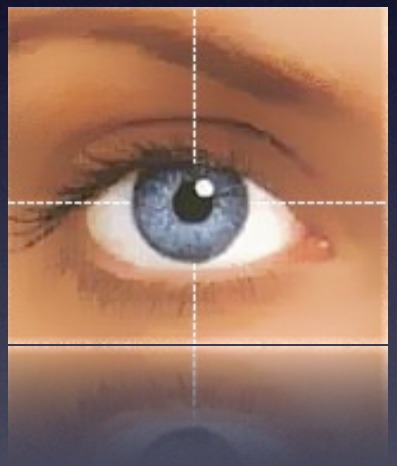


Some Issues

- Those who have Color blindness:
  - Color is not used alone to convey content



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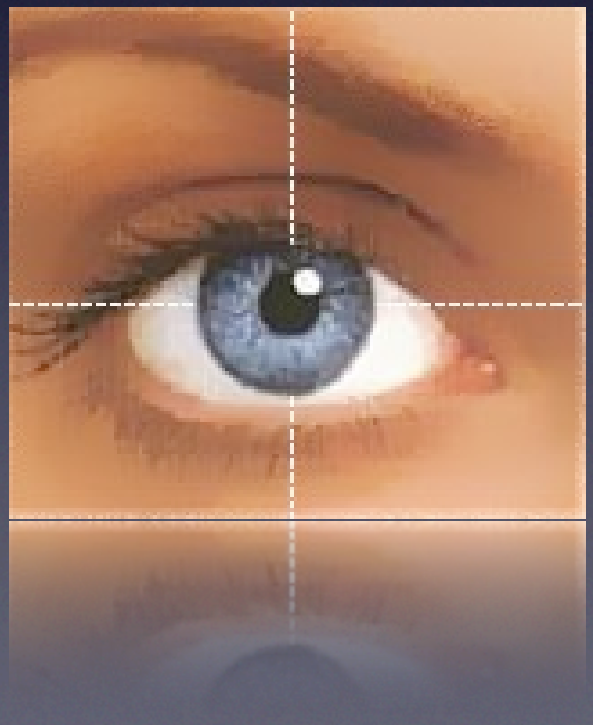
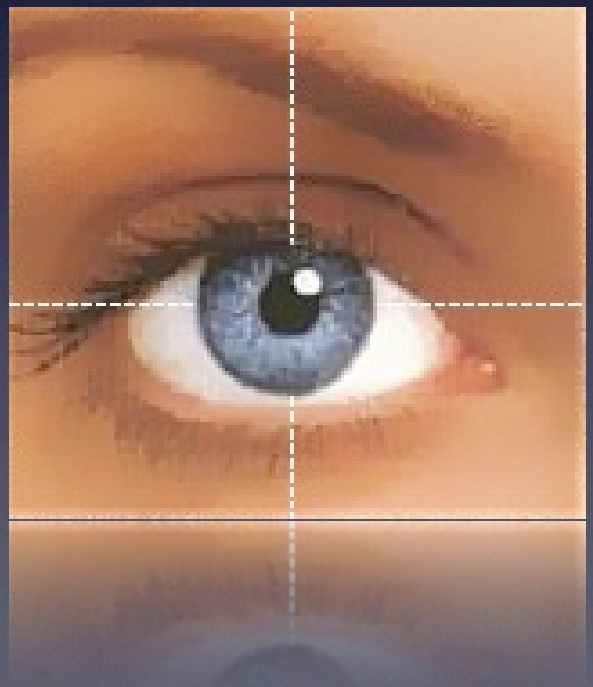


What is the User Experience?

- Those who are blind, color blind, or have LOW VISION:
  - Low vision simulation - www.webaim.org/simulations/lowvision.php



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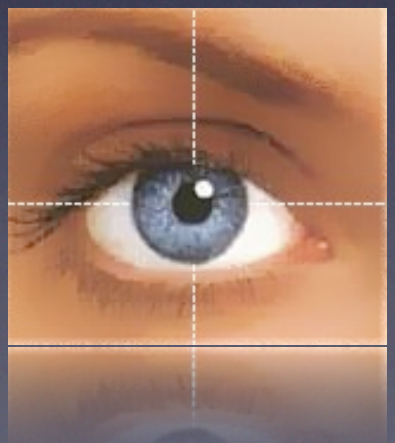
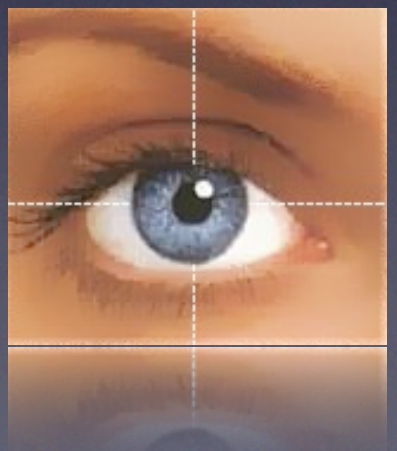


Some Issues

- Those who have LOW VISION:
  - Will enlarge screen content
  - Avoid graphical text, it pixelates
  - Use relative sizes to avoid scrolling
  - Have plenty of contrast



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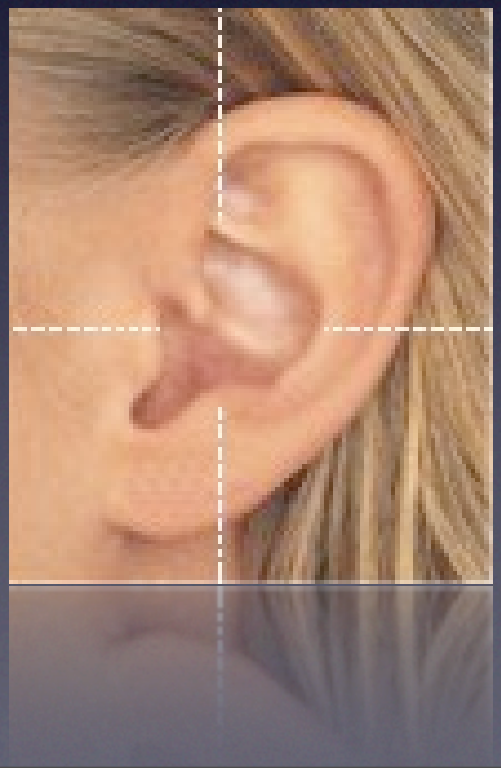
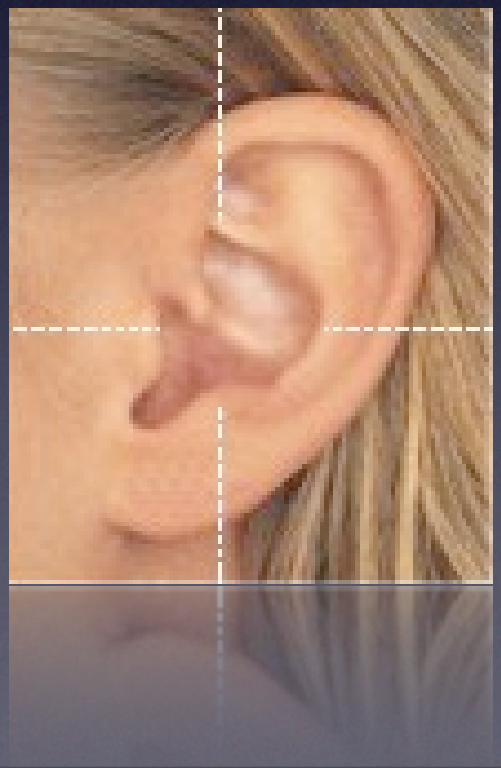


What is the User Experience?

- Those who are deaf or hard of hearing:
  - Article - www.webAIM.org/articles/auditory
  - Curtis' experience http://www.webaim.org/articles/auditory/culture.php



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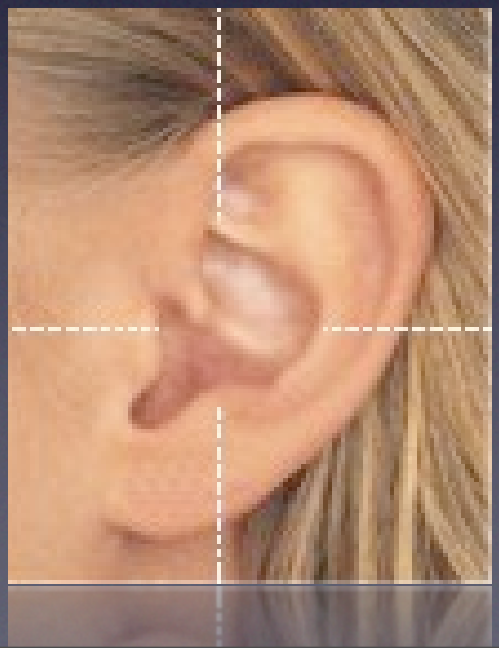
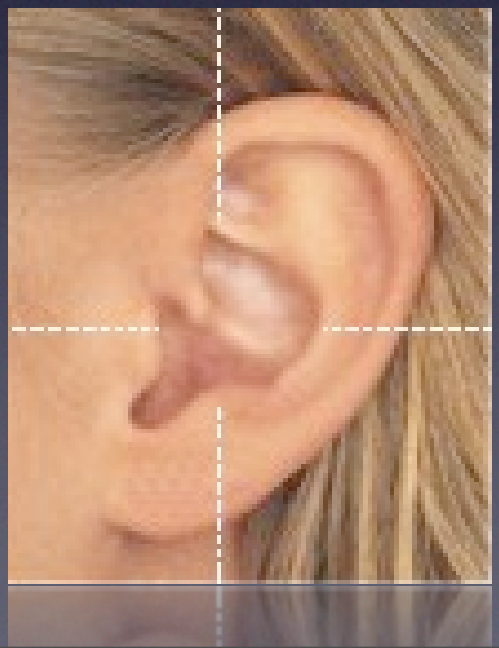


Some Issues

- Those who are DEAF or HARD of HEARING:
  - Provide transcripts for audio clips
  - Provide synchronized subtitles or captions for video clips



What is the User Experience?

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- Those who have difficulty with MOTOR SKILLS:
  - Article - http://www.webaim.org/articles/motor/
  - Gordon's experience

Don't rely on the use of keyboard or mouse

What is the User Experience?

What is the User Experience?

- Those who have difficulty with MOTOR SKILLS may use:
  - Raised space in between keys
  - “Puff and sip” switch
  - Head switch
  - Head wand
  - Voice recognition
  - Mouth stick
  - Trackball

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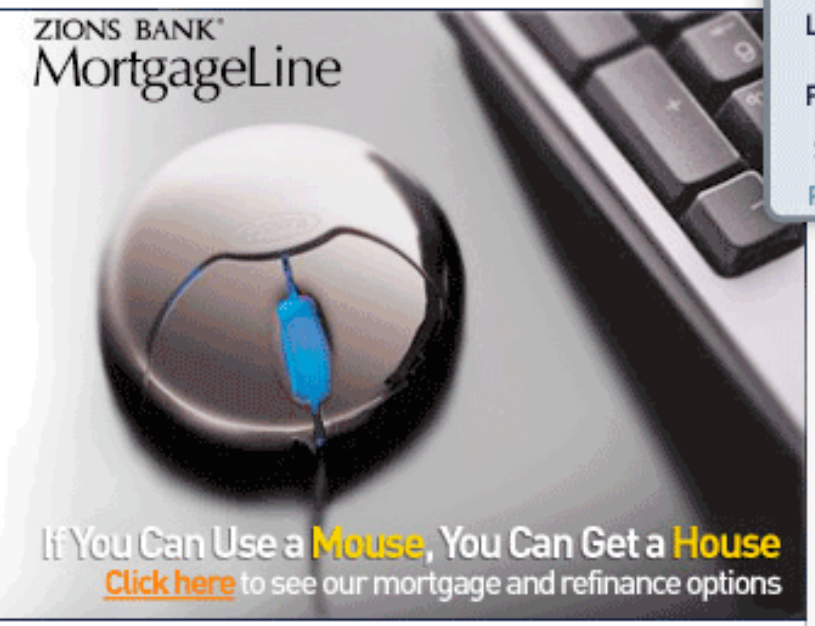

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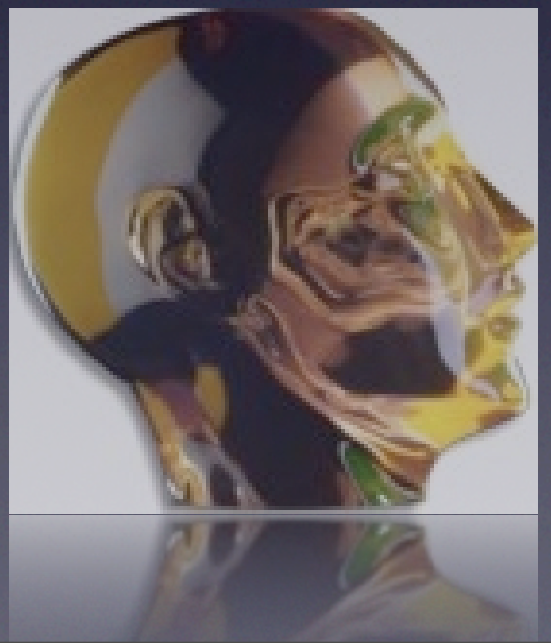
Some Issues

Some Issues

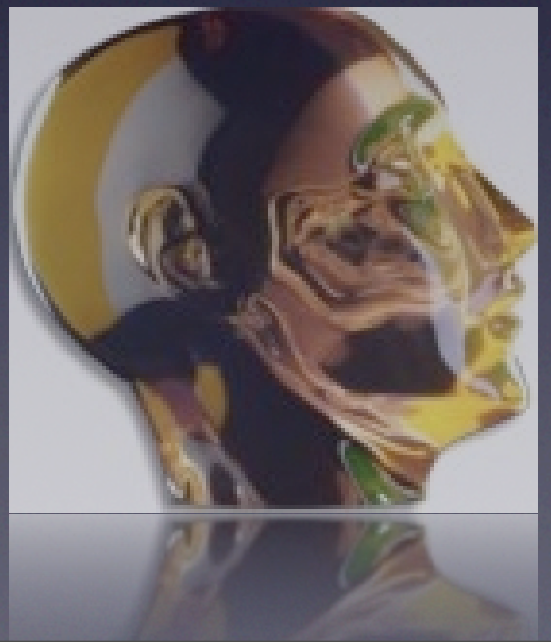
- Those who have MOTOR PROBLEMS
  - Keyboard accessibility
  - Skipping long lists or other lengthy content
  - Easy, consistent, navigation

What is the User Experience?



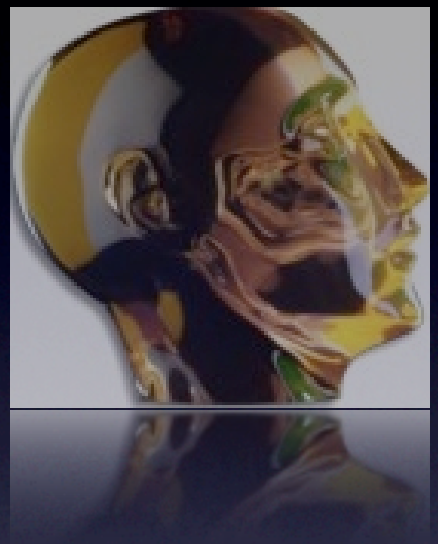
What is the User Experience?

- Those who have difficulty with COGNITIVE SKILLS:
  - Article - www.webaim.org/articles/cognitive
  - Distractibility simulation http://www.webaim.org/simulations/distractability.php



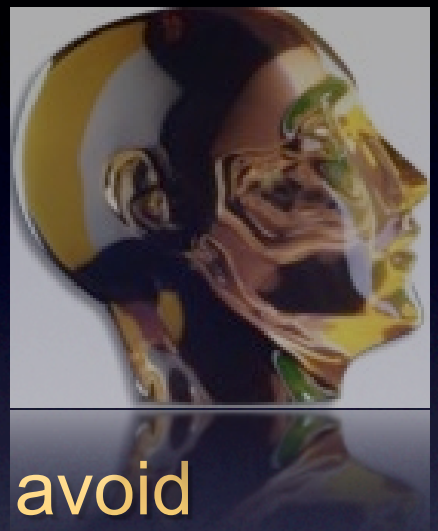
Cognitive load vs Functionality

Some Issues



Some Issues

- Those who have COGNITIVE challenges:
  - May become confused at complex layouts
  - Need consistency and simplicity
  - Benefit from multimodal content (e.g., illustrations, icons, self-voicing, video)
  - Benefit from short, organized content (e.g., avoid lengthy text sections. “Chunk” your content)
  - Need clear & simple language appropriate for content.
  - Benefit from attentional strategies (to, not from the content)
  - Need user-control of content (e.g., timed elements, auto refresh, redirects)



What is the User Experience?

What is the User Experience?

- Those who have difficulty with SEIZURES
  - Be careful with Flash and animated gifs (2-55 hz)
- Those with AGE RELATED PROCESSES
  - All of the above suggestions

When will this be me?

What Do You Do?

- Simple answer
  - Become redundant & multi-modal. Don't rely on
    - Use of mouse
    - Sight
    - Hearing

- Complete answer
  - Apply existing standards for accessibility. Examples
    - WCAG
    - Section 508 guidelines

P

O

U

R

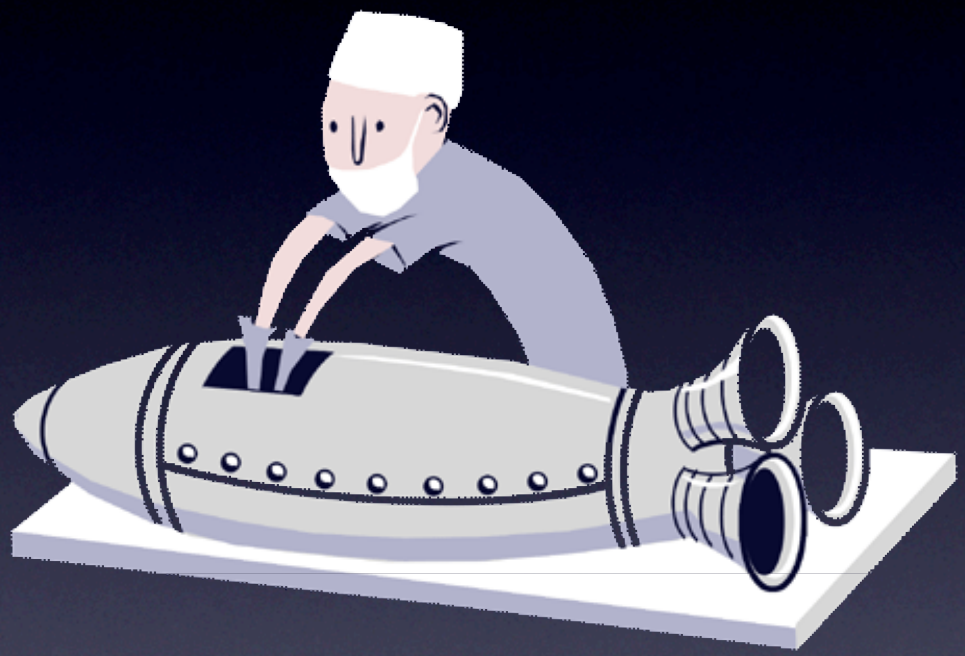
Perceivable

Operable

Understandable

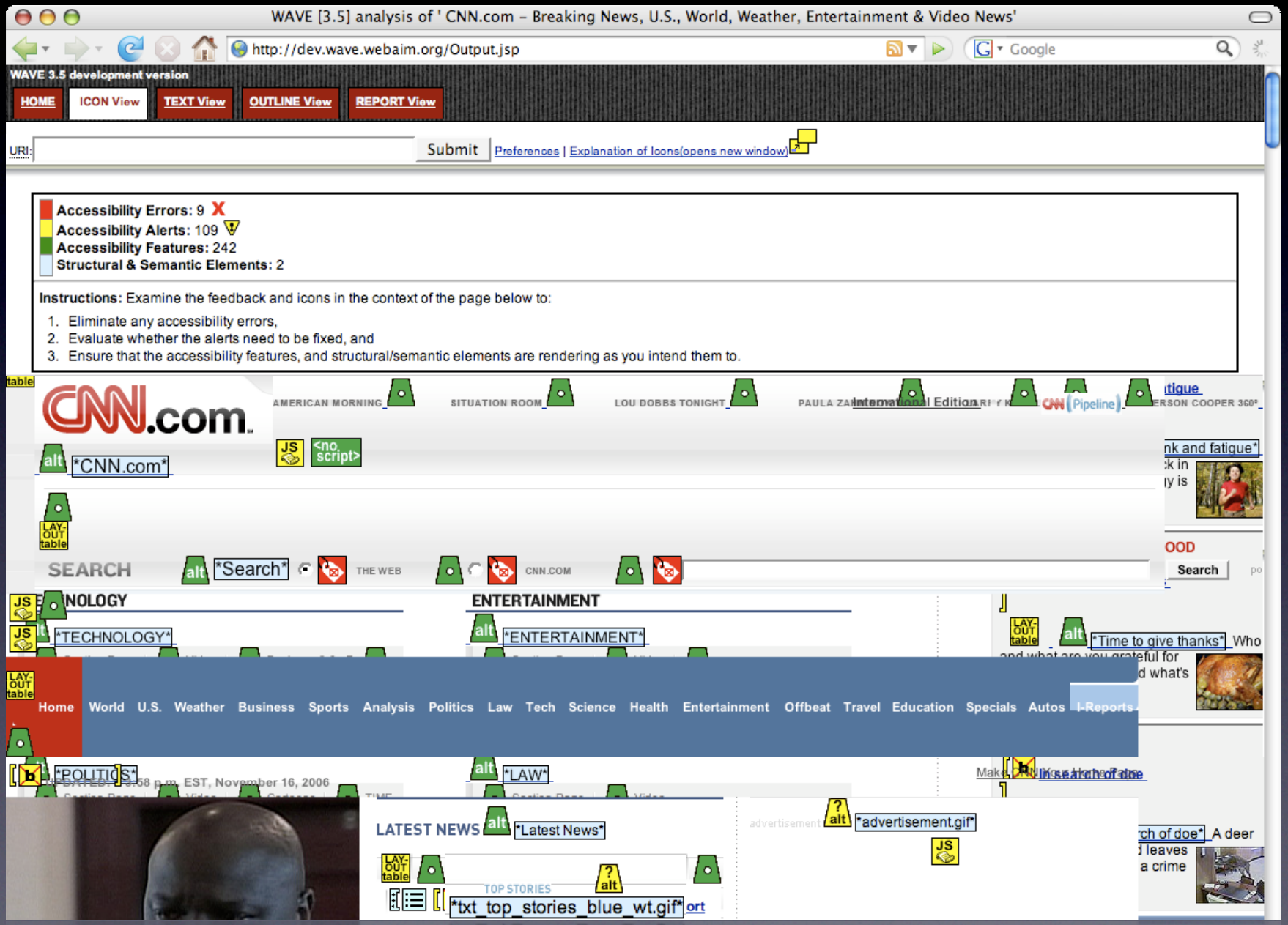
Robust

Web Accessibility



... it's not rocket surgery!

http://wave.webaim.org/



Questions? Comments?

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Cyndi@cpd2.usu.edu

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Web Accessibility in Mind