

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

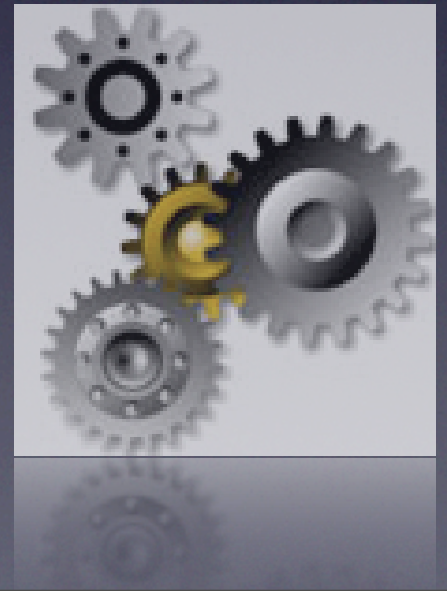


Legal issues

Individuals with Disabilities in an Online World

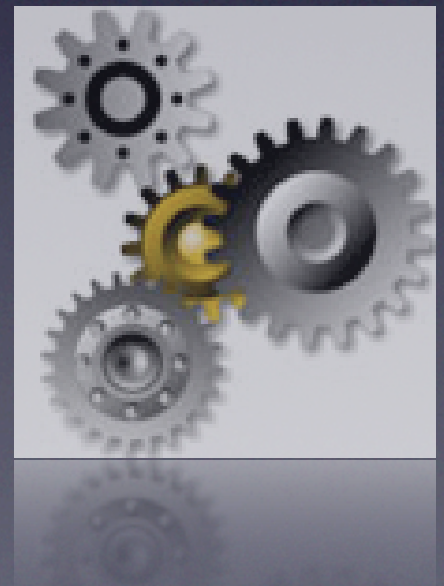


Expanded legal issues

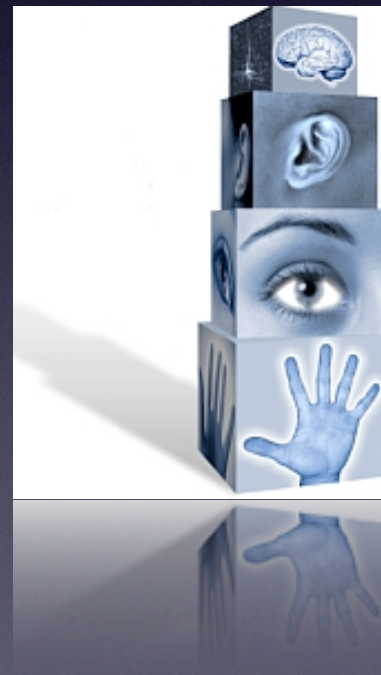


Expanded legal issues

- **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)

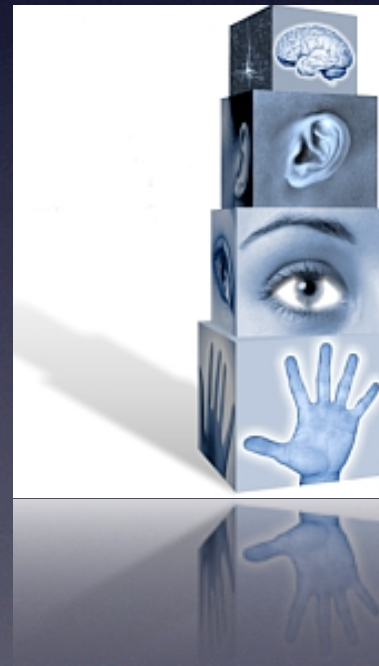


Fundamental issue



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>

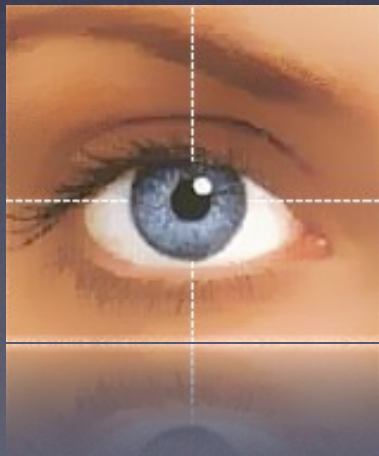
Who Does this Affect?

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



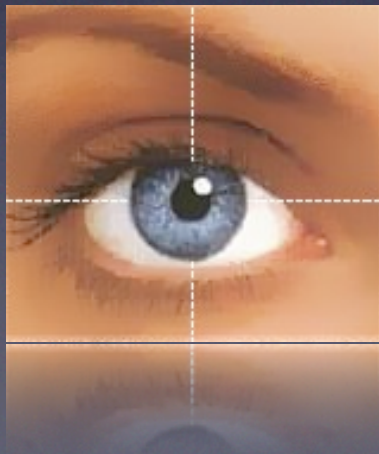
See <http://www.webaim.org/intro/>
<http://www.webaim.org/intro/#video>

What is the User Experience?

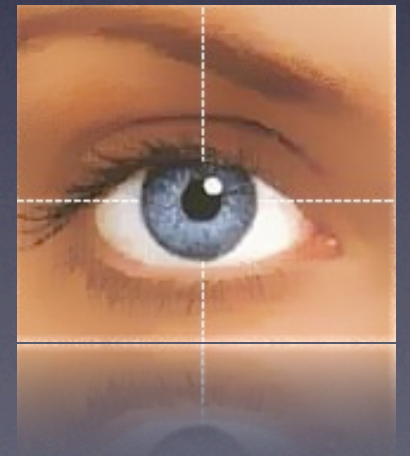


What is the User Experience?

- 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

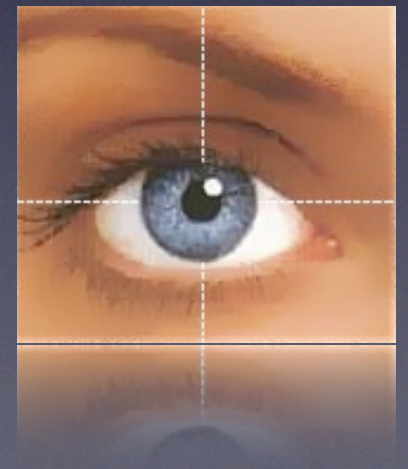


Some Issues

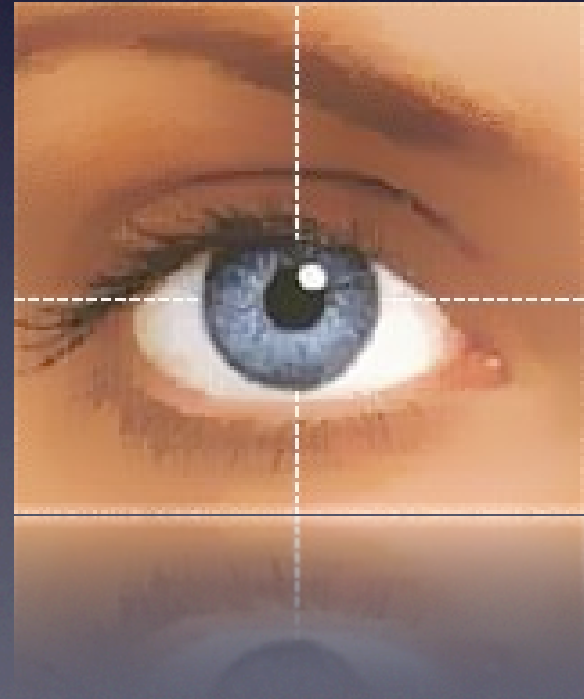


Some Issues

- 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



What is the User Experience?



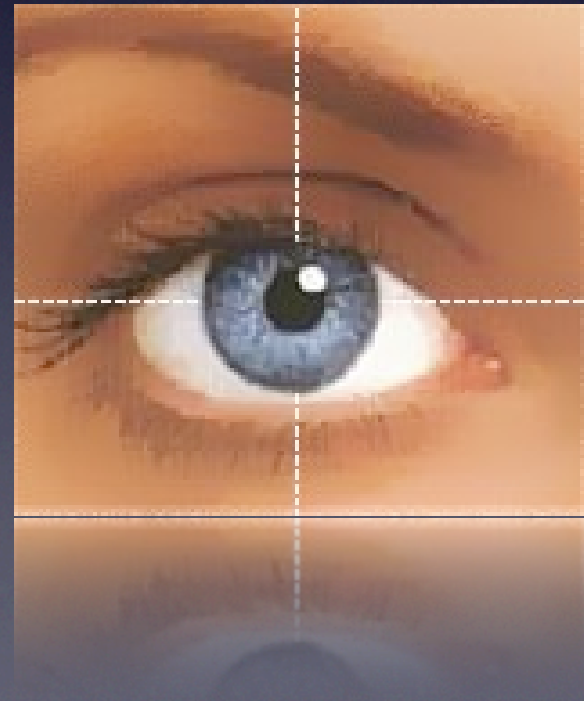
What is the User Experience?

- 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



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

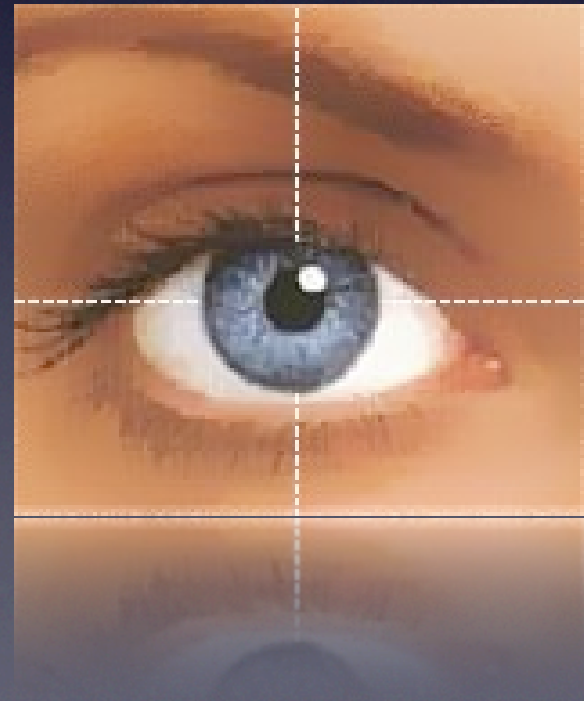
- Chanterelle

- Porcini

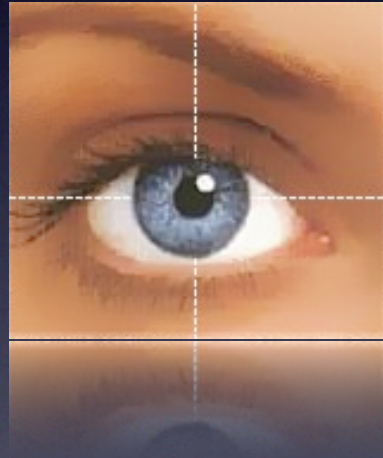
- Shitake

- Tylopilus

Resource
Vischeck.com

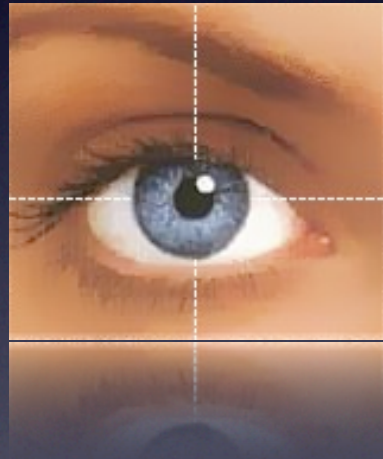


Some Issues

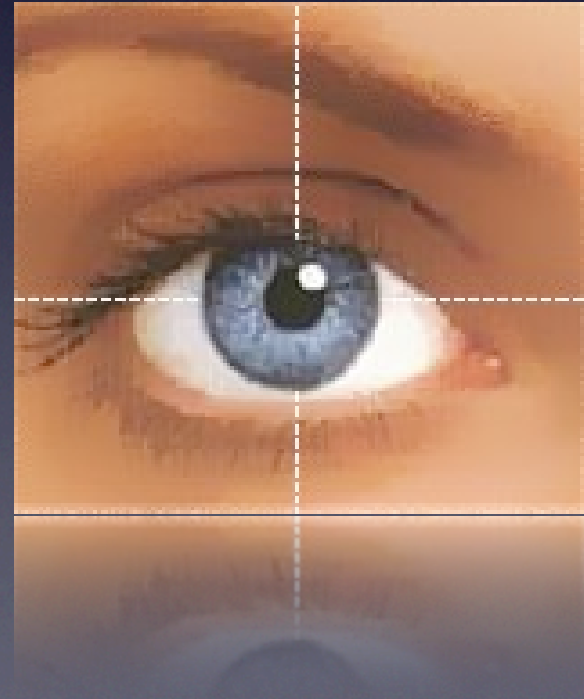


Some Issues

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

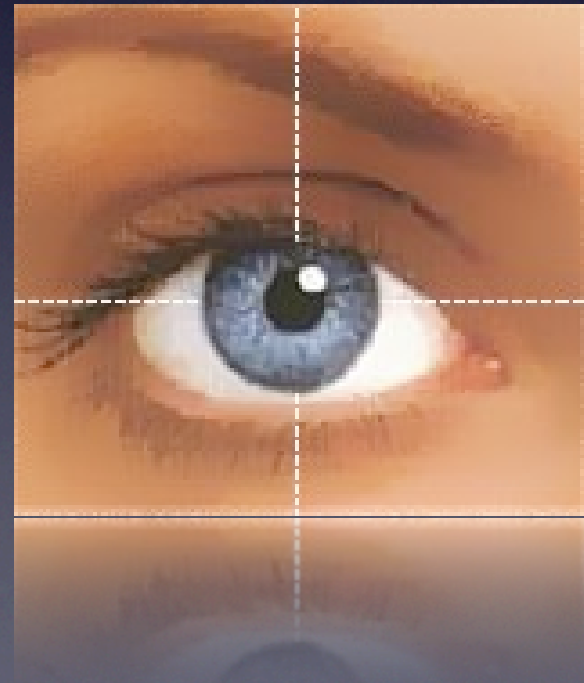


What is the User Experience?

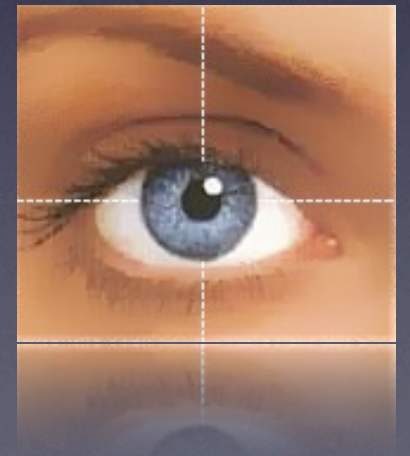


What is the User Experience?

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

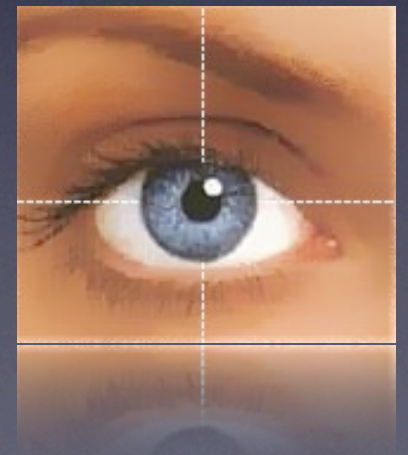


Some Issues

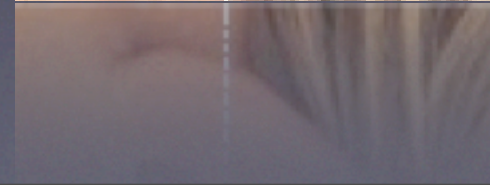
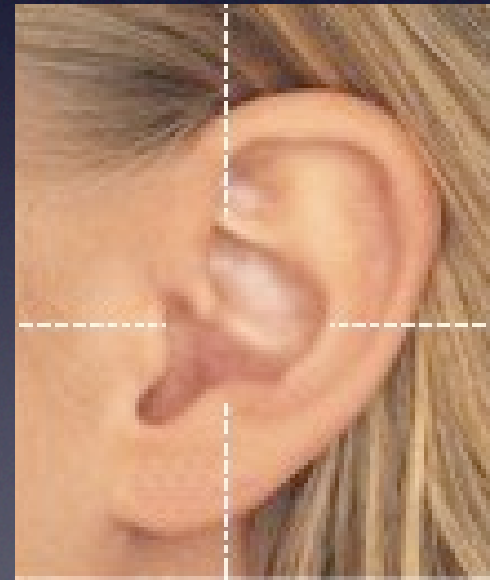


Some Issues

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

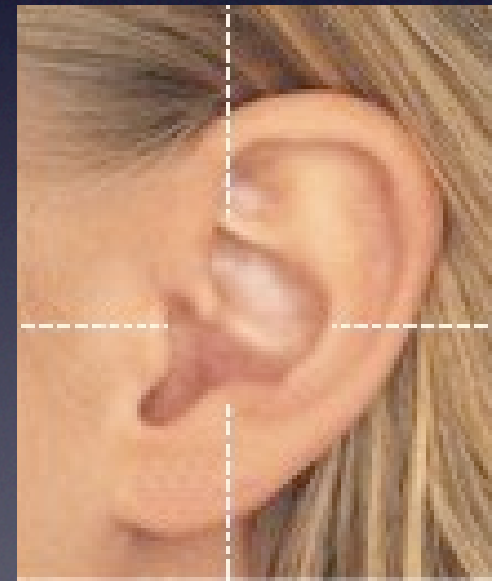


What is the User Experience?

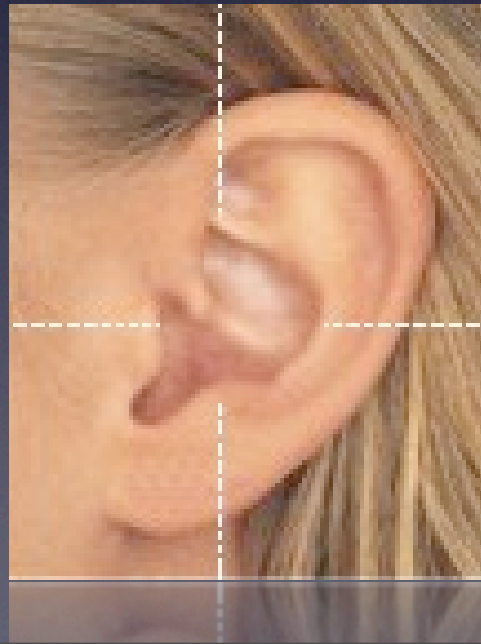


What is the User Experience?

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

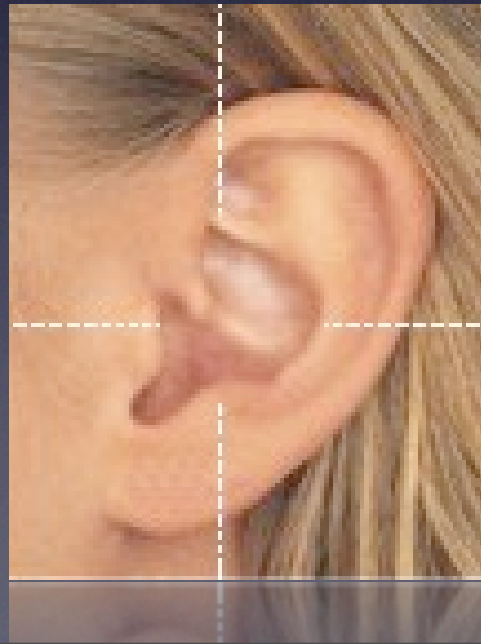


Some Issues



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?

What is the User Experience?

- 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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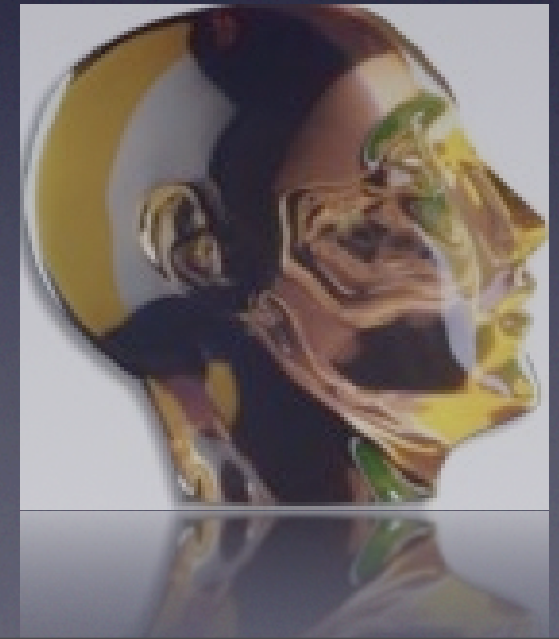
Some Issues

Some Issues

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

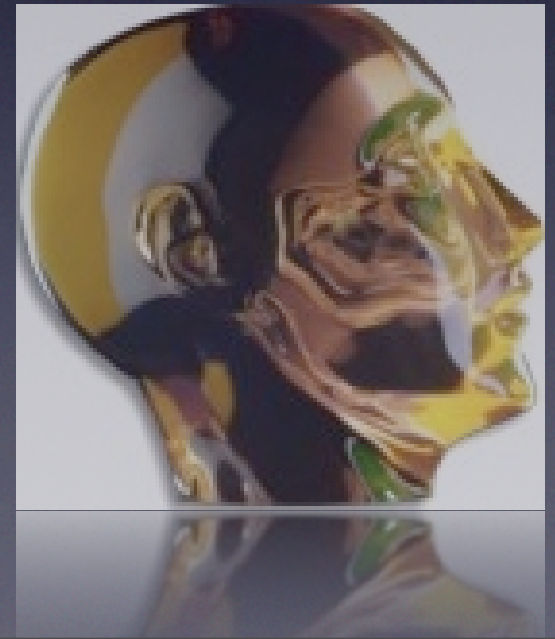


What is the User Experience?



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>



- alabama
- alaska
- arizona
- arkansas
- california
- colorado
- connecticut
- delaware
- dc
- florida
- georgia
- hawaii
- idaho
- illinois
- indiana
- iowa
- kansas
- kentucky
- louisiana
- maine
- maryland
- mass
- michigan

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 - saskatchewan
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 - more ..

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- austin
- boston
- chicago
- dallas
- denver
- houston

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- australia
- austria
- bangladesh
- belgium
- brazil
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- chile
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- costa rica
- czech repub
- denmark
- egypt
- finland
- france
- germany
- great britain
- greece
- hungary
- india
- indonesia
- ireland

post to classifieds

my account

help, faq, abuse, legal

search craigslist

for sale >

event calendar (2720)

S	M	T	W	T	F	S
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

avoid scams & fraud

defend net neutrality

"fair" housing lawsuit

community (10556)

- activities
- artists
- childcare
- general
- groups
- pets
- events
- lost+found
- musicians
- local news
- politics
- rideshare
- volunteers
- classes

personals (67699)

- strictly platonic
- women seek women
- women seeking men
- men seeking women
- men seeking men
- misc romance
- casual encounters
- missed connections
- rants and raves

discussion forums

- arts
- housing
- politic

housing (33709)

- apts / housing
- rooms / shared
- sublets / temporary
- housing wanted
- housing swap
- vacation rentals
- parking / storage
- office / commercial
- real estate for sale

for sale (130785)

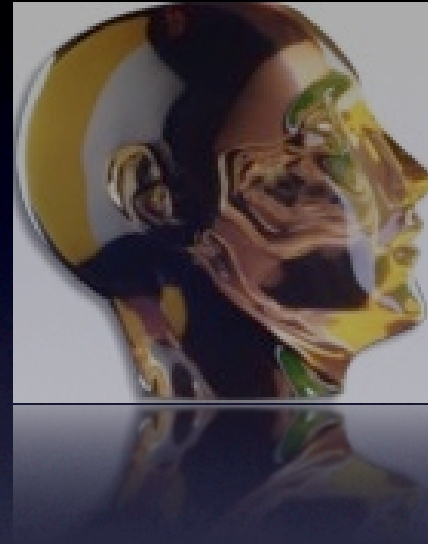
- barter
- bikes
- boats
- books
- free
- furniture
- general
- jewelry
- rvs
- auto parts
- baby+kids
- cars+trucks
- cds/dvd/vhs
- clothes+acc
- collectibles
- computer
- electronics
- garage sale

jobs

- accounting+finance
- admin / office
- arch / engineering
- art / media / design
- biotech / science
- business / mgmt
- customer service
- education
- government
- human resources
- internet engineers
- legal / paralegal
- marketing / pr / ad
- medical / health
- nonprofit sector
- retail / food / hosp
- sales / biz dev
- skilled trade / craft
- software / qa / dba
- systems / network

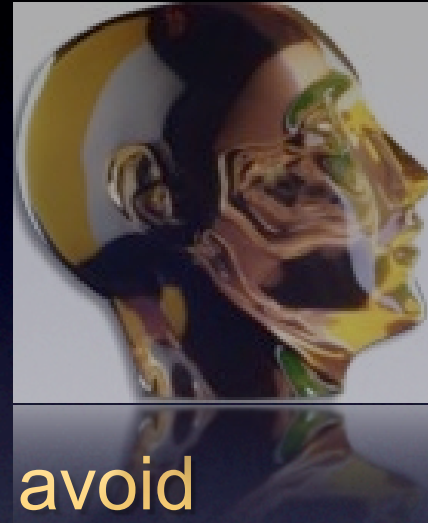
Cognitive load vs Functionality

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



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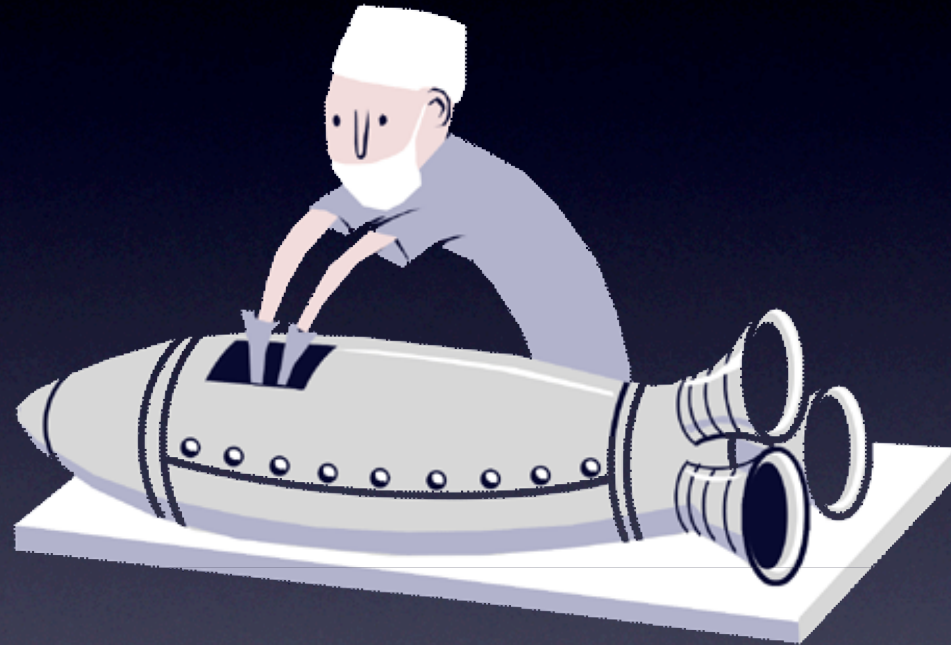
Perceivable

Operable

Understandable

Robust

Web Accessibility



... it's not rocket surgery!

http://wave.webaim.org/

WAVE [3.5] analysis of 'CNN.com - Breaking News, U.S., World, Weather, Entertainment & Video News'

http://dev.wave.webaim.org/Output.jsp

WAVE 3.5 development version

HOME ICON View TEXT View OUTLINE View REPORT View

URI: Submit Preferences | Explanation of Icons (opens new window)

Accessibility Errors: 9 X
Accessibility Alerts: 109 V
Accessibility Features: 242
Structural & Semantic Elements: 2

Instructions: Examine the feedback and icons in the context of the page below to:

1. Eliminate any accessibility errors,
2. Evaluate whether the alerts need to be fixed, and
3. Ensure that the accessibility features, and structural/semantic elements are rendering as you intend them to.

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Questions? Comments?

Cyndi Rowland
Cyndi@cpd2.usu.edu

