ADA Compliancy for Electronic Communication and Websites

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Overview

- Defining accessibility
- Types of disabilities
- What is the ADA?
- Disabilities and the Web
- Making your site accessible
- It’s the right thing to do!

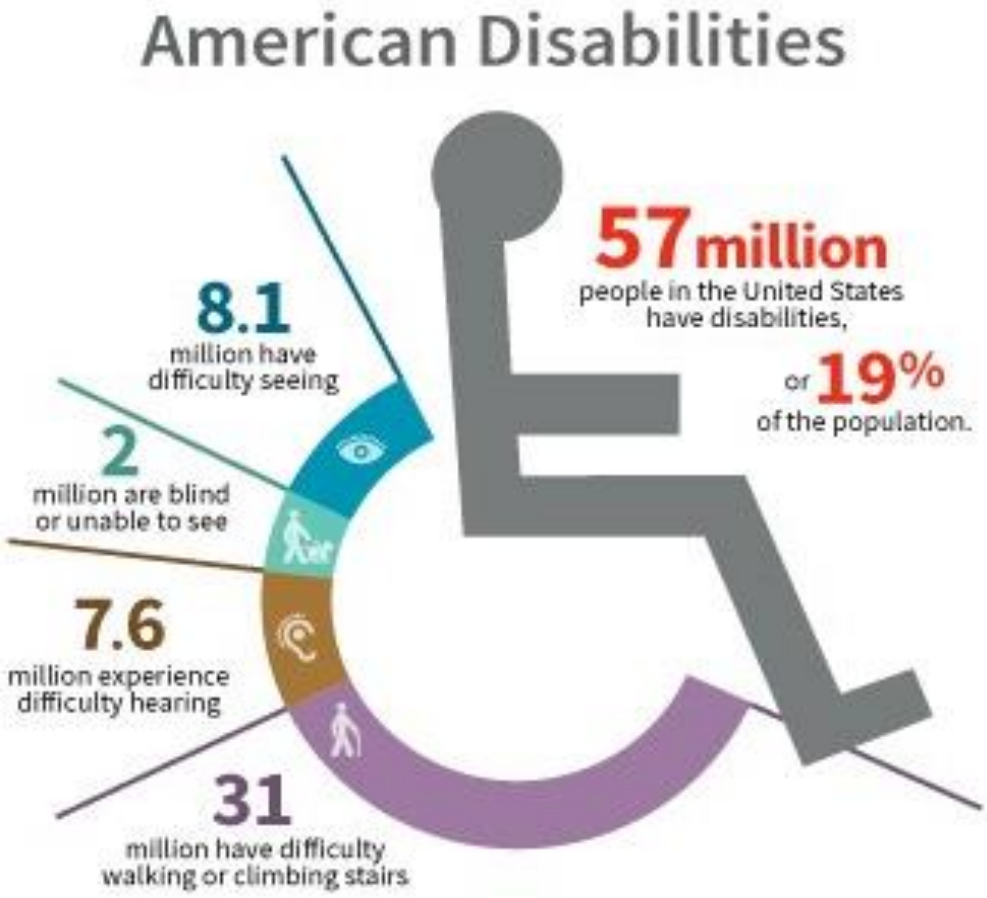
Defining Accessibility

- Making things usable by people with a disability.
- Disabilities can include issues related to:
  - Vision
  - Hearing
  - Motor skills
  - Cognition
  - Seizure

Accessibility:
Introduction to the Screen Reader

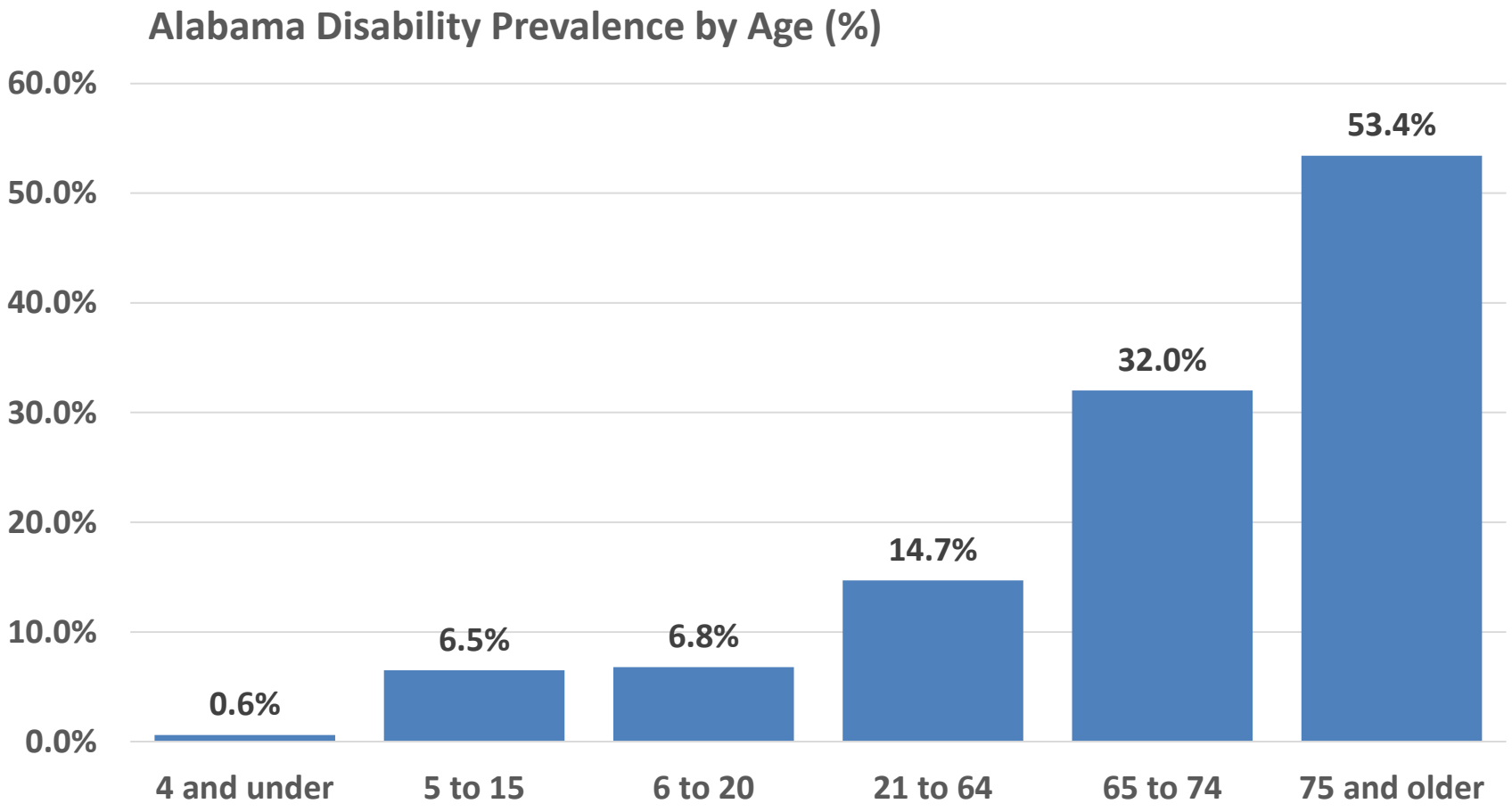
Learn about screen readers (YouTube)

National Numbers

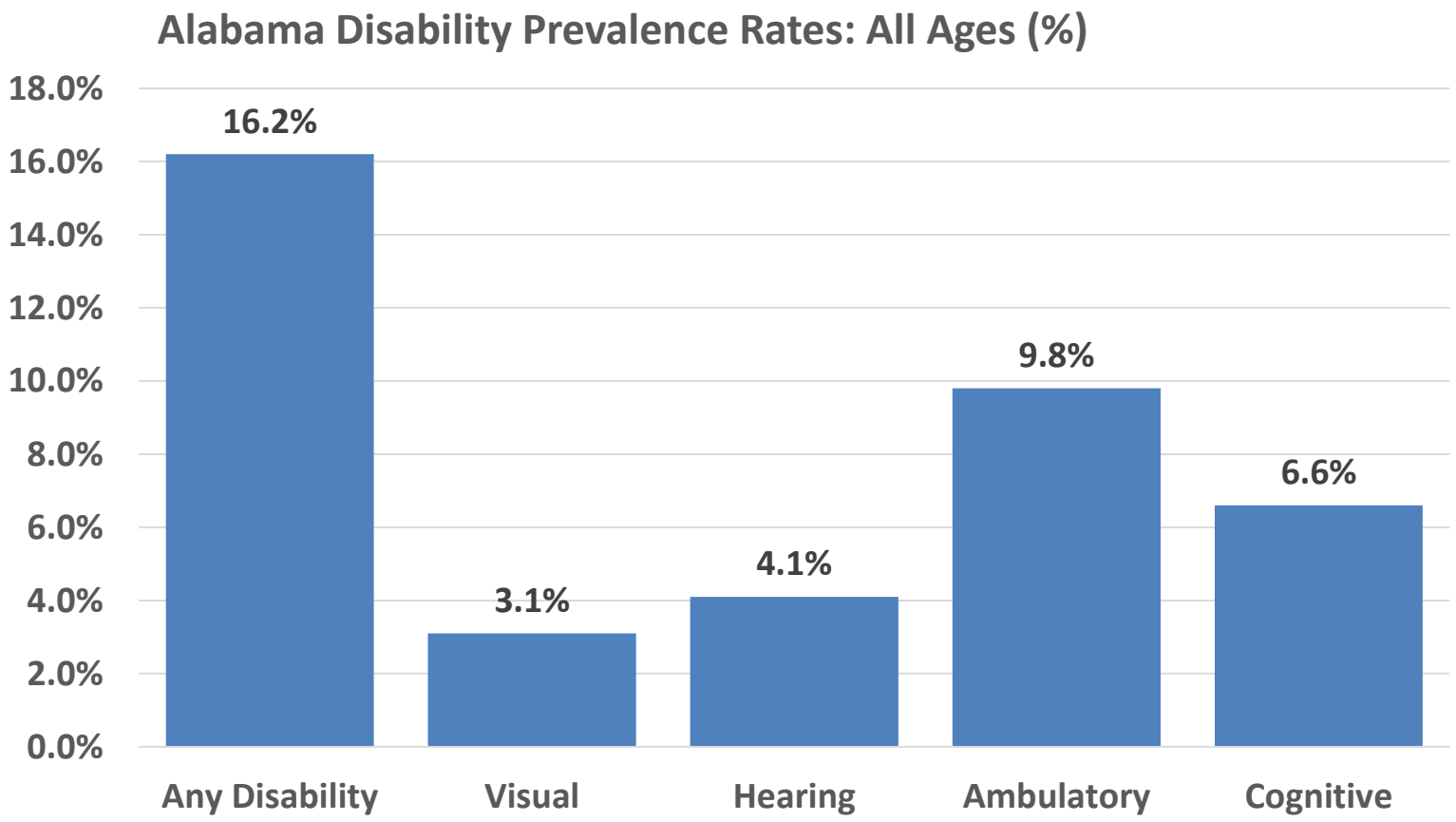


From: Beyond Complex: How to Keep Up with Changing ADA Regulations (http://www.wearharris.com)

Breaking things down by age



By Disability



Understanding the population

- Disabilities are higher among African-Americans and Native Americans
- Disabled workers earn $4000 less working full time
- $20,000 difference in household income
- Twice the poverty rate

Some legislative background

- Architectural Barriers Act of 1968
  Access to federal buildings
- Rehabilitation Act of 1973
  Prohibits discrimination on the basis of disability
- Section 504 of the Rehabilitation Act of 1973
  Prohibits discrimination in programs receiving federal financial assistance
- Section 508 of the Rehabilitation Act of 1973
  Electronic media standards

ADA

- Americans with Disabilities Act (1990)
- Protects civil rights
- Applies to all aspects of public life
- Public places of accommodation
- Geared toward brick-and-mortar world.
- Signed into law about the time the Web starts

Changes to the ADA (1991)

- Title II – State and local government accessibility
- Communication issues focus on telephone services and automated attendant services.

2010 Title II Rule Change

- Moves ADA firmly into the virtual world
- State and local government website accessibility, regardless of federal funding
- Accessible sites are needed for citizens “to participate fully in civic life” (Title II: 2010 Guidance)
- Alternative services should be available the same hours as online services.

Setting Standards

- Section 508 Amendment to the Rehabilitation Act of 1973 (1998)
- Originally guidelines were U.S. specific
- January 2017 US Access Board adopts W3Cs Web Content Accessibility Guidelines 2.0 AA
- New content must meet WCAG 2.0 AA after January 2018.

WCAG 2.0: POUR

- **Perceivable** - Information and user interface components must be presentable to users in ways they can perceive.
- **Operable** - User interface components and navigation must be operable.
- **Understandable** - Information and the operation of user interface must be understandable.
- **Robust** - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

Website accessibility?

- How usable a site is for a user with a disability
- Tim Berners-Lee:
  “Access by everyone is an essential aspect.”
- We need to make content available for all our citizens
- Online accessibility, much like brick-and-mortar accessibility can help everyone
- **Think curb cuts**

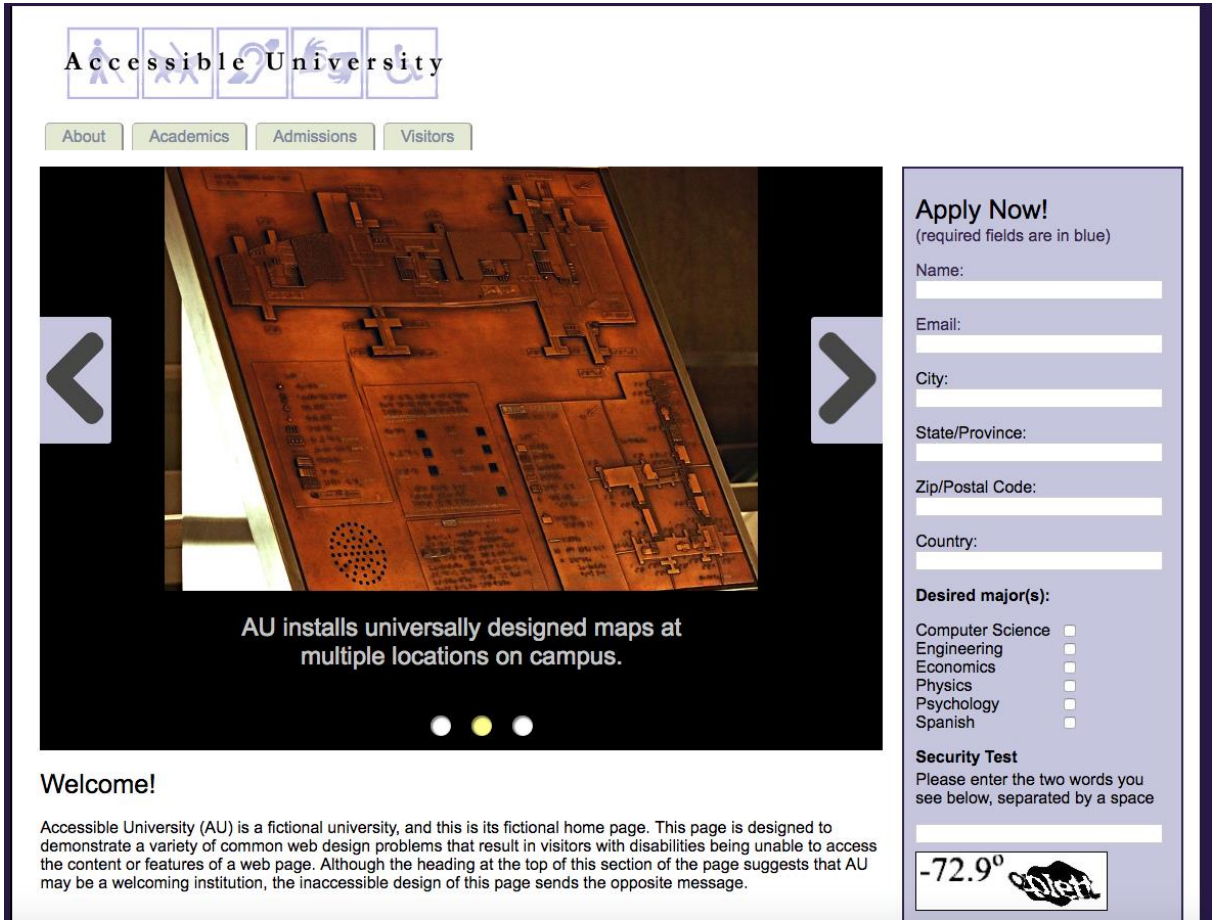
When your site isn't accessible

- 82% of American Internet users have used online government services in the 12 months (2010)
- No or limited access to:
  - Voting information
  - Tax information
  - Government financial information
  - Human resources information
  - Emergency management information

The Internet offers independence

- Computers read text
- Provide captioned video
- Allow people to fill out forms that they might not be able to do by hand
- Poor accessibility forces people to go to an office where they may encounter more barriers

How do we read pages?



Using a web page

When we consume a web page, we

- skim pages
- rely on headings
- look for underlined and colored text to find links
- scan the navigation

Blind users do essentially the same thing!

Low Vision and Colorblindness

Low Vision

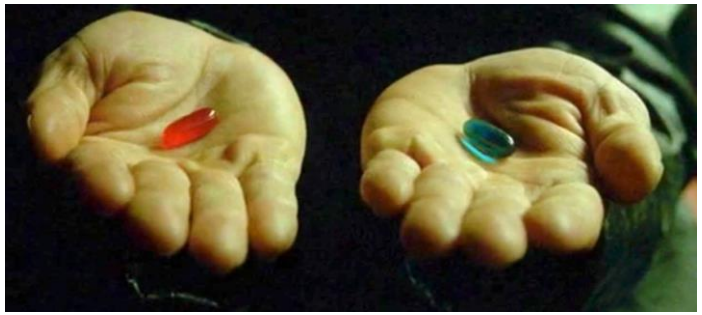
- Screen Readers
- Screen magnification tools
- Need for resizable text
- Need for responsive design

Color Blindness

- Color contrast issues

Blindness

- Screen Readers and Braille Devices
- Users who are blind **cannot use a mouse**
- Images must have **alternative text**:
  <img src="logo2.jpg" alt="Accessible City">
- **Page structure** and **linked text quality**
- Using **color** for meaning **doesn't work**



Audio Description for Video

The video clip with audio descriptions in the presentation was from the Netflix video series, Daredevil. Audio descriptions provide a narration of what is happening on the screen. To enable audio descriptions in Netflix on a computer, hover over the play bar and select the icon for closed captioning. Under the Audio settings, you should see an option for “English–Audio Description.” Other devices will work similarly. The video clip is not included in the PDF due to copyright restrictions.

Low Vision and Color Blindness

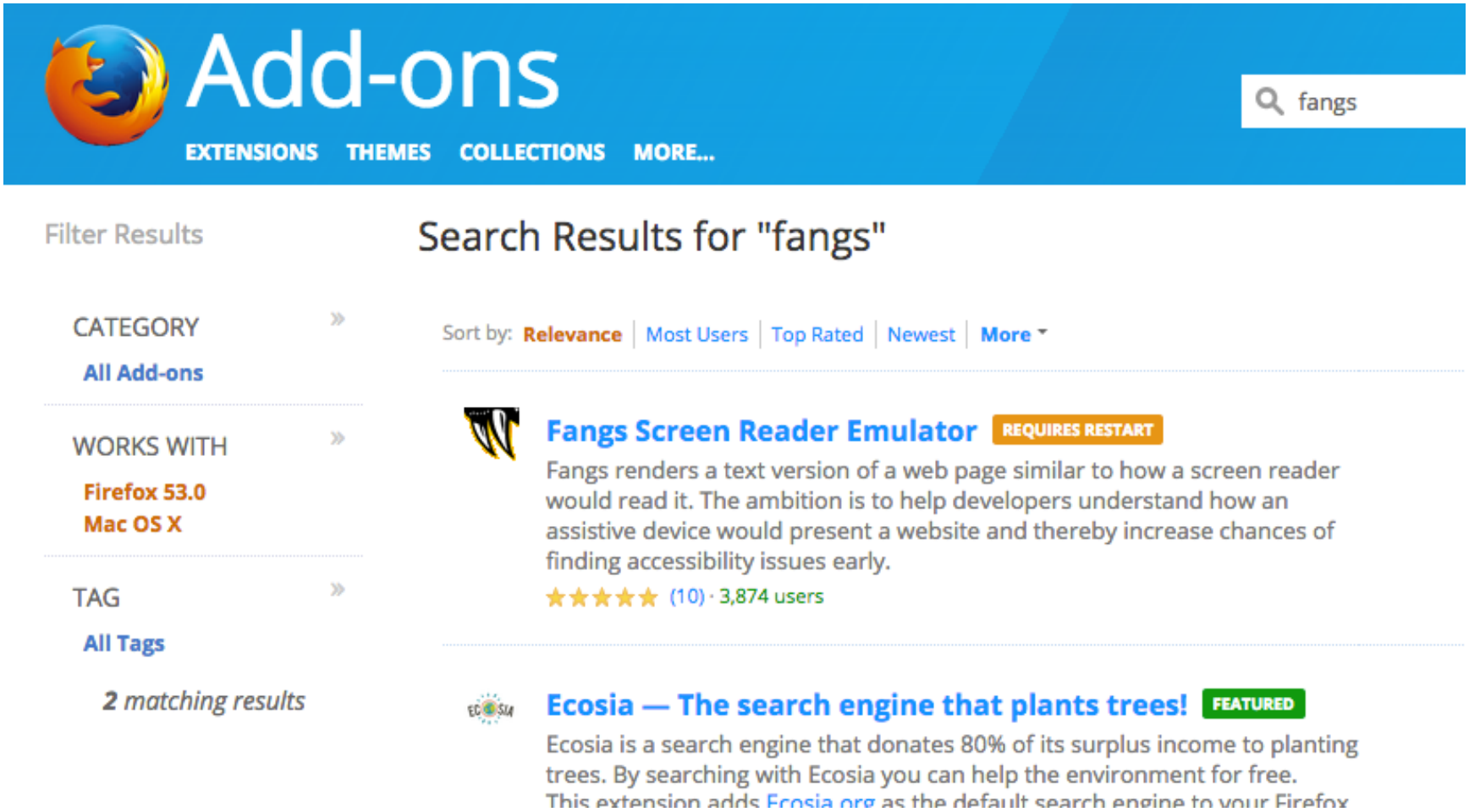
Low Vision

- Need for resizable text
- Need for responsive design

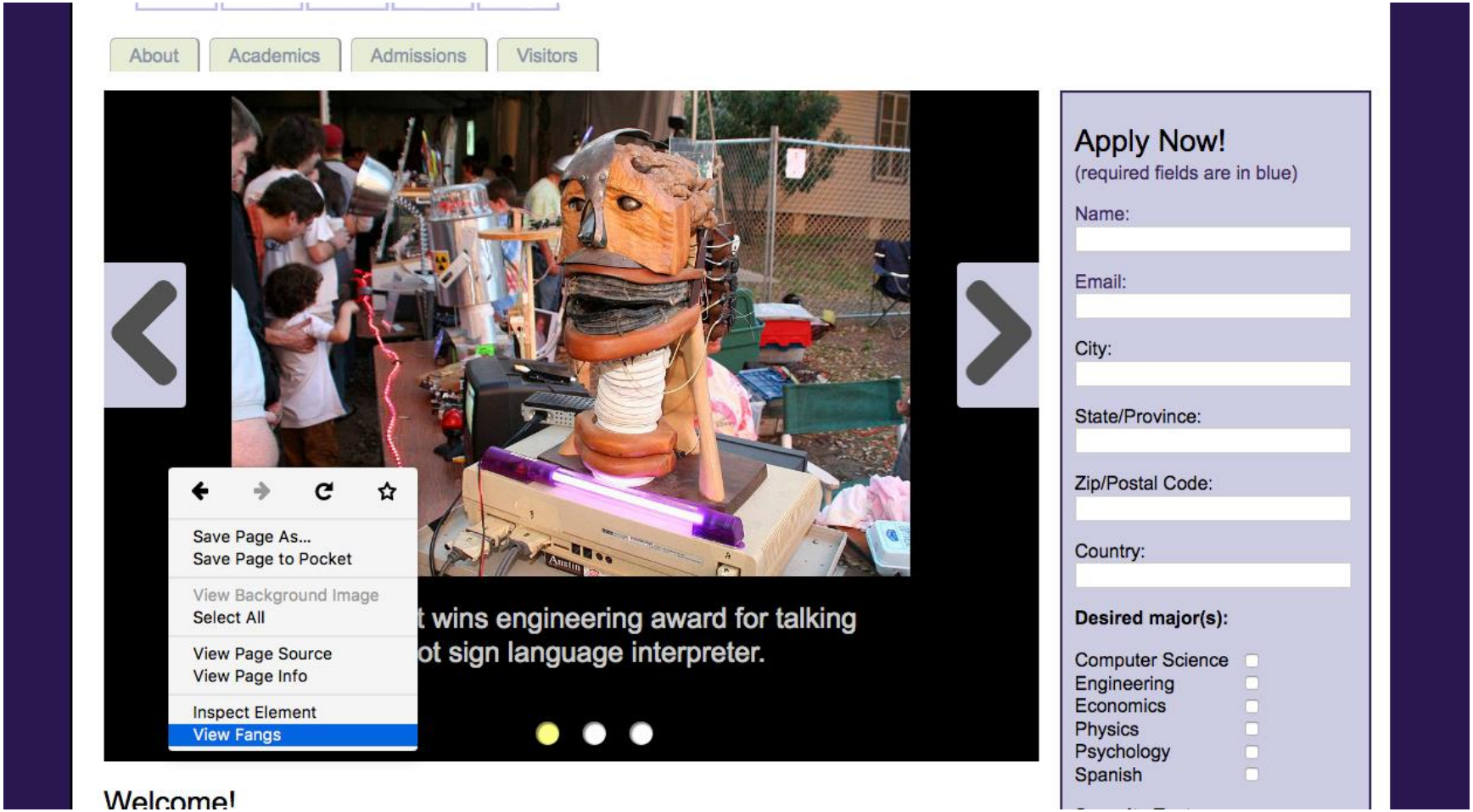
Color Blindness

- Color contrast issues

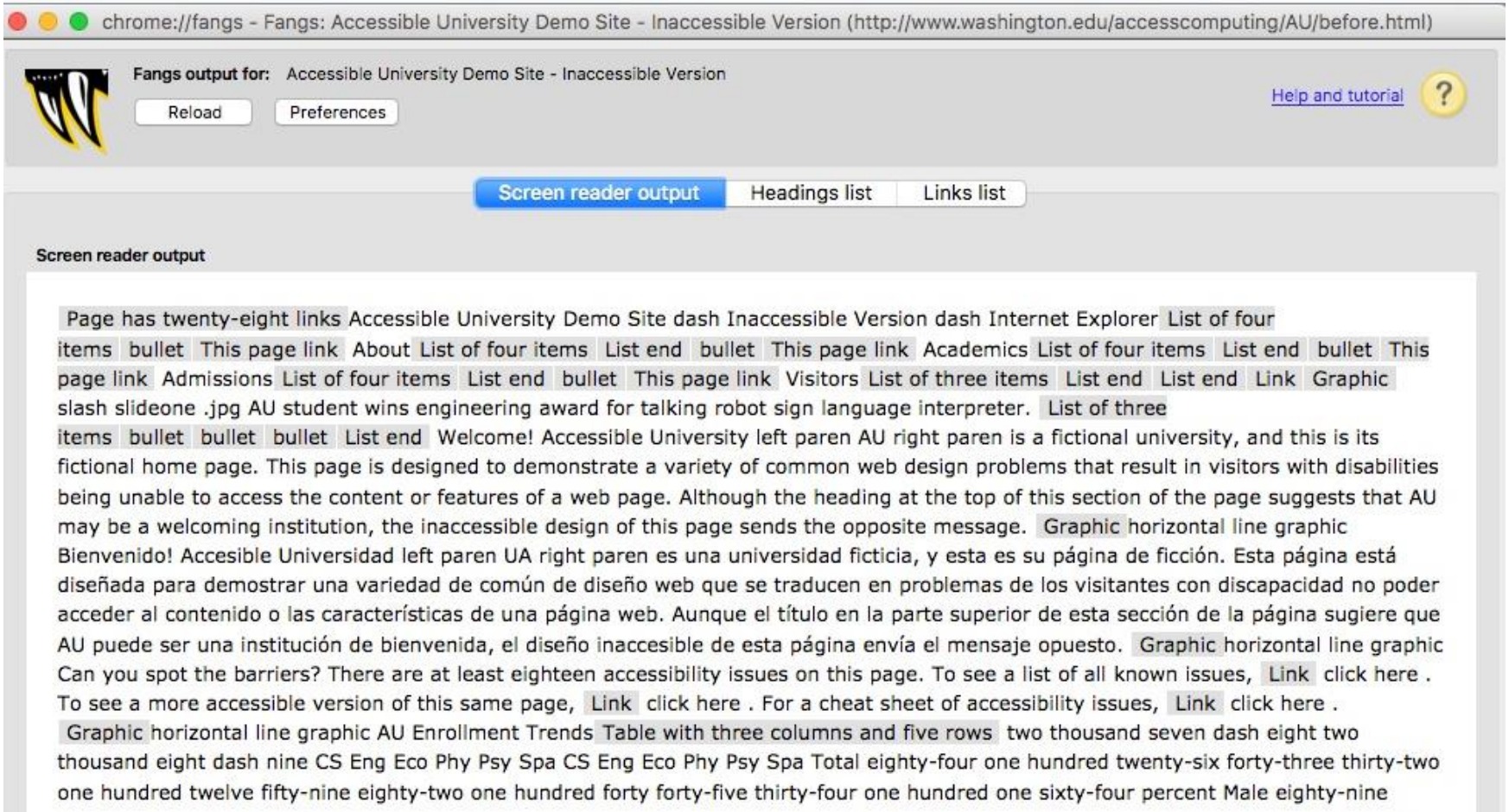
Simulating a screen reader



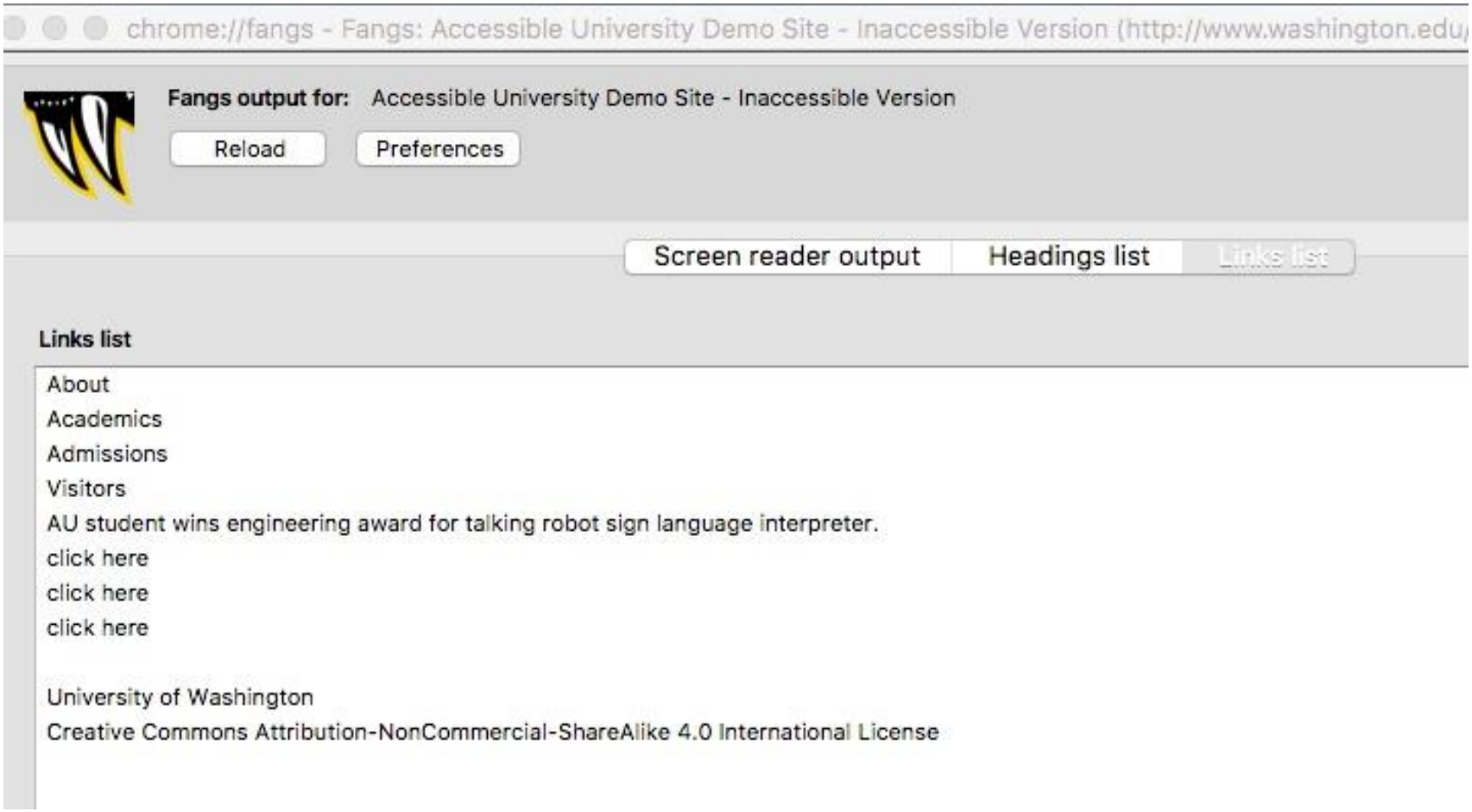
Right-Click to Activate



Screen reader output



Links List & Heading List



Deafness/Hard of Hearing

Assistive Technology

- American Sign Language Interpreter
- Transcripts
- Captions
- Captions help a wide range of people
- 80% of caption users have **NO** hearing issues (2006)

Mobility Issues

Assistive Technology

- Sip-and-puff controllers
- Mouth and head sticks
- Eye tracking
- Voice recognition

Most devices interact with or emulate a keyboard

Cognition Disabilities

Assistive Devices

- Screen Readers
- Turning off images to limit distractions

Making it Better

- Well structured content
- Consistent navigation
- Progress bars and error detection
- Short forms
- Use plain languages & omit unneeded information
- Stop animations and avoid distracting backgrounds

Seizure Disorders

- Avoid flickering images
- Be careful about optical illusions, particularly those in which lines appear to move

Making your site accessible

It’s not just enough to say, “Make the site accessible.”

1. Set clear policies and guidelines
2. Set clear penalties
3. Anyone adding content needs training and probably a checklist of critical items

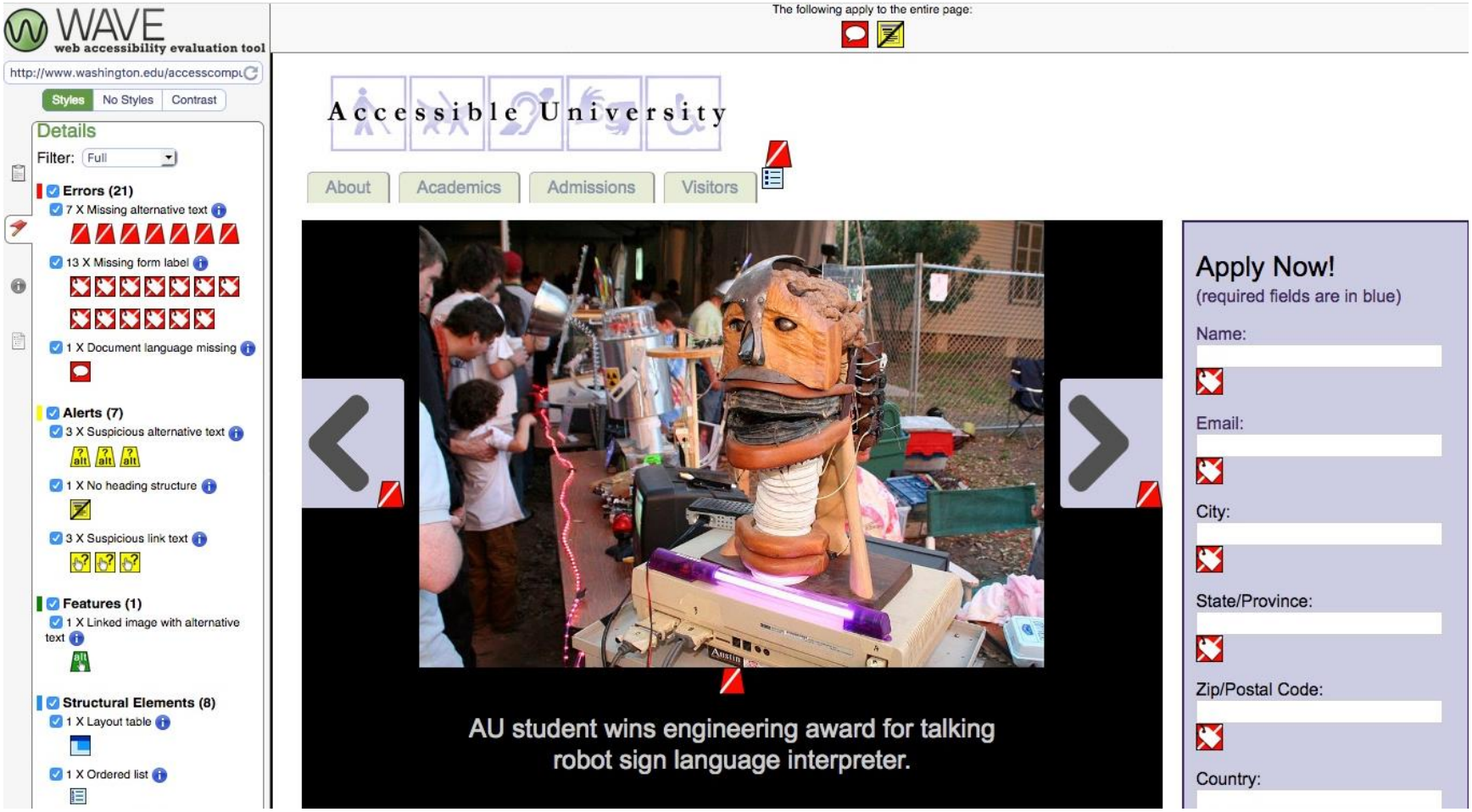
Remember:
It just takes one mistake

Fixing your existing site

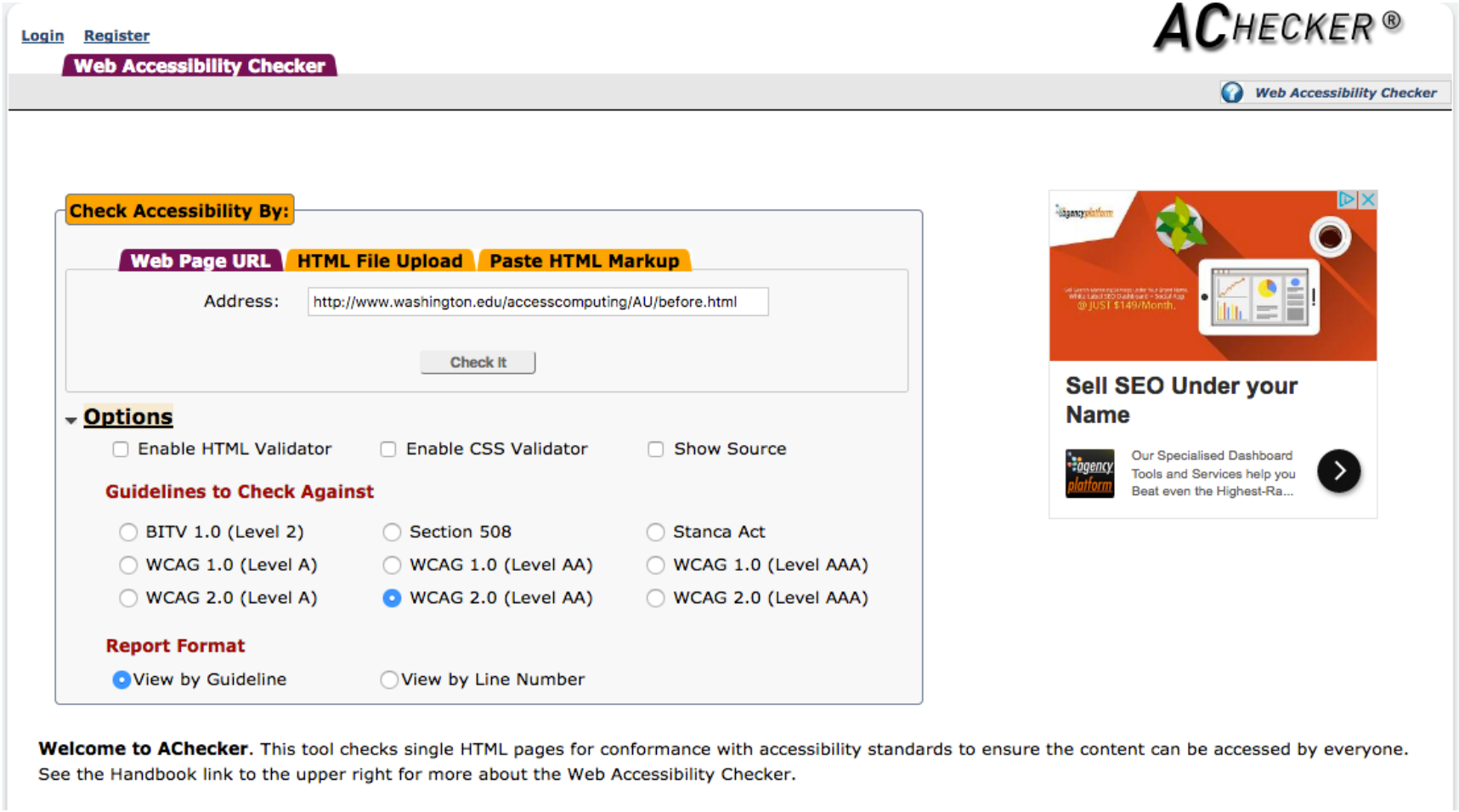
- Accessibility checks are like proofreading
- You still need to manually check things
- (Automated tools are still pretty cool though)

Accessibility, is the write thing to do!

WAVE


WAVE
web accessibility evaluation tool
http://www.washington.edu/accesscompu
Styles
No Styles
Contrast
Details
Filter:
Full
Errors (21)
7 X Missing alternative text
13 X Missing form label
1 X Document language missing
Alerts (7)
3 X Suspicious alternative text
1 X No heading structure
3 X Suspicious link text
Features (1)
1 X Linked image with alternative text
Structural Elements (8)
1 X Layout table
1 X Ordered list
The following apply to the entire page:
Accessible University
About
Academics
Admissions
Visitors
AU student wins engineering award for talking robot sign language interpreter.
Apply Now!
(required fields are in blue)
Name:
Email:
City:
State/Province:
Zip/Postal Code:
Country:

AChecker.ca


Login Register
Web Accessibility Checker
ACHECKER®
Web Accessibility Checker
Check Accessibility By:
Web Page URL
HTML File Upload
Paste HTML Markup
Address:
http://www.washington.edu/accesscomputing/AU/before.html
Check It
Options
Enable HTML Validator
Enable CSS Validator
Show Source
Guidelines to Check Against
BITV 1.0 (Level 2)
Section 508
Stanca Act
WCAG 1.0 (Level A)
WCAG 1.0 (Level AA)
WCAG 1.0 (Level AAA)
WCAG 2.0 (Level A)
WCAG 2.0 (Level AA)
WCAG 2.0 (Level AAA)
Report Format
View by Guideline
View by Line Number
Sell SEO Under your Name
Our Specialised Dashboard Tools and Services help you Beat even the Highest-Ra...
Welcome to AChecker. This tool checks single HTML pages for conformance with accessibility standards to ensure the content can be accessed by everyone.
See the Handbook link to the upper right for more about the Web Accessibility Checker.

AChecker Output

Accessibility Review (Guidelines: WCAG 2.0 (Level AA))

Export Format: PDF Report to Export: All Get File

Known Problems(63) Likely Problems (3) Potential Problems (137) HTML Validation CSS Validation

1.1 Text Alternatives: Provide text alternatives for any non-text content

Success Criteria 1.1.1 Non-text Content (A)

Check 1: `img` element missing `alt` attribute.

Repair: Add an `alt` attribute to your `img` element.

Line 25, Column 7:

```
<img id="logo" src="images/au123456789.gif" width="441" height="90">
```

Line 68, Column 15:

```
<img src="images/slide1.jpg" />
```

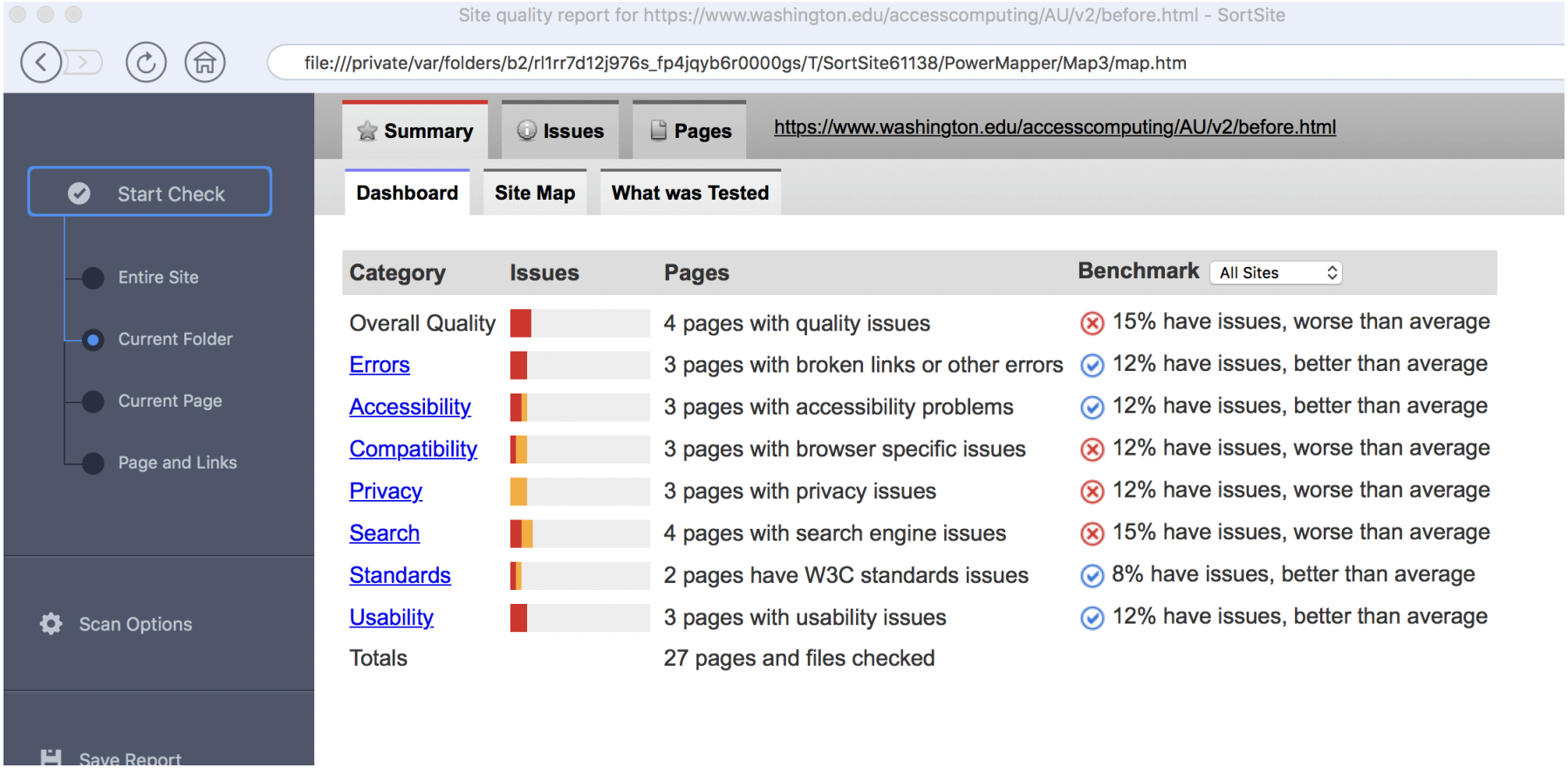
Line 76, Column 15:

```
<img src="images/slide2.jpg" />
```

Line 84, Column 15:

There are also site-wide Tools

Example: SortSite by PowerMapper



Make a plan

Evaluating the site

- Start with automated analysis
- Identify and fix the easiest problems
- Evaluate specific tasks for problems
- Involve people in the testing process
- Be careful about site templates
- Include accessibility in your website style guide

Mistakes are not always obvious

See what I mean?

Major issues to watch for

- Images
- Page structure
- Easy to understand links
- PDFs - Don’t use scanned PDFs
- Move PDF forms to online submission
- When needed offer an HTML and PDF version of a document

What if you get caught?

- Section 504 violations handled through a lawsuit
- Section 508 violations handled by the DOJ
- Vision Technology Solutions estimates around $750,000 over four years including legal fees, required consultants, and required hires
- Does not include the staff time for remediation
- It shouldn’t require a law to make it accessible
- It’s the right thing to do

Resources and products mentioned

- ADA Information Line
  - 800-514-0301 (voice)
  - 800-5124-0383 (TTY)
- ADA.gov
- Section508.gov
- U.S. Access Board
- W3C's Web Accessibility Initiative

Resources (continued)

- WebAIM
- AChecker
- Alabama Interactive
- PowerMapper/SortSite
- You can listen to a screen reader version of this PDF in Acrobat by using the “Read out Loud” option in the View menu. This option may vary by Acrobat version and operating system

- Inclusion of companies and products on this list is not an endorsement of services.

Questions

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