



# Access Granted

**Leveraging the Rapid Pace of Change In Organizations and Tech to provide greater Accessibility**

Earl C. Parks, Jr., Executive Director, IT, Gallaudet University

Jarlath Bloom, Technical Support Account Manager, Splunk>

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# Background

- Gallaudet University
- Legal Context in U.S.
  - American with Disabilities Act
  - Section 508
- Key Digital Access Resources
  - World Wide Web Consortium (W3C)
  - Web Content Accessibility Guidelines (WCAG)

# Inclusive Excellence

# Changing the culture:

- Accommodations (*legal change*)
- Access (*legal + behavior/attitude change*)
- Thriving Organization (*legal+ behavior/attitude + culture change*)

When everyone thrives, synergies happen; the whole becomes greater than the sum of its parts



# Accessibility Initiatives at your Organization

- ▶ Who is currently responsible for this function in your org?
- ▶ Who should be?
- ▶ What does/should this look like?
- ▶ It's not just a "Tech" problem – it is a **cultural** problem.

# Design Thinking: 20 is the new 80

- ▶ Software development approach 80/20
- ▶ Making choices to meet budget, goals
- ▶ Change approach and start with the foundation (20)
- ▶ Synergies in product development, deployment, and overall experience far outweighs the flashy “wants” and “nice to haves” and will make these extras cheaper, easier, and faster to build.

130.60.4 - - [07/Jun 18:10:57:153] "GET /category.screen?category\_id=GIFTS&SESSIONID=SD1SL4FF10ADFF10 HTTP 1.1" 404 720 "http://buttercup-shopping.com/cart.do?action=view&itemId=EST-6&product\_id=FI-SW-03"  
128.241.220.82 - - [07/Jun 18:10:57:123] "GET /product.screen?product\_id=FL-DSH-01&SESSIONID=SD5SL7FF6ADFF9 HTTP 1.1" 404 3322 "http://buttercup-shopping.com/category.screen?category\_id=GIFTS"  
317 27.160.0.0 - - [07/Jun 18:10:56:156] "GET /product.screen?product\_id=FL-DSH-01&SESSIONID=SD5SL7FF6ADFF9 HTTP 1.1" 200 1318 "http://buttercup-shopping.com/cart.do?action=purchase&itemId=EST-26&product\_id=K9-CW-01"  
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- ▶ **Current System:** Individuals must request accommodations in advance
  - Do not always disclose disability
  - Who's in this group?
- ▶ **Opportunities Missed:** Supporting Access for All
  - Ex: Certain initiatives can benefit all – ChatOps, etc.
- ▶ **Retroactive ideas** tend to not be actually inclusive, or miss the mark.

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# Universal Design: Everyone Benefits

- ▶ Curb cuts
- ▶ Closed Captioning
- ▶ Sonicare Toothbrush
- ▶ NCAA Swim "Starter Gun"
- ▶ TTY/TTD
- ▶ American Football Huddle



# ChatOps as an example of Universal Design

- ▶ Unifying Communications between teams – regardless of modality
  - Full visibility into what is being done and when (and accessible!)
- ▶ Not just emojis (but they don't hurt!)



# Zoom as an example of Unintentional Design

- ▶ Zoom – awesome video platform
  - “Feature” – zoom highlights the video conference participant with noise, assuming they are speaking.
- ▶ Opportunities Missed: Supporting Access for All
  - (make a “turn highlight off” feature please Zoom!)

# Legal and fiscal ramifications

- ▶ Consumer perception:
  - Remedial accommodation is costly and resource intensive.
- ▶ Workforce productivity and retention
- ▶ Federal and State government investigations and actions
- ▶ Private lawsuits
- ▶ Damage to “brand” and reputation

# Lawsuits and Precedents

- DOJ v. UC-Berkeley (content removal)
- NAD v. Netflix
- NAD v. MIT
- Disability coalitions are actively pursuing legal enforcement

<http://www.d.umn.edu/~lcarlson/atteam/lawsuits.html>

# Leverage the Power of the Purse/Pen

- ▶ Require VPATs from Vendors when reviewing software or systems for purchase
- ▶ Request evidence of studies, research on product development related to accessibility
- ▶ Add language to contracts (accessible digital files, transcripts, original/native/unlocked content)

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# US Dept. of Ed. Office of Civil Rights

- ▶ Groups of lawyers are filing complaints
- ▶ OCR has over 1,400 active cases
- ▶ Has your organization been “served”? Are you at risk?
- ▶ Do you know your website/software accessibility status?

# Lost In Translation

- ▶ Disaster Communications (Interpreters on Screen) – Why?
- ▶ Captioning Automation (not quite there)
  - EX: Training Videos



# Accessibility and Web SEO go hand-in-hand

- ▶ Search Engine Optimization (SEO)
- ▶ Web crawlers consume the web in similar fashion as screen readers.
  - Accessible content improve search rankings/results
  - Captions improve video searchability





# Accessibility Standards and Guidelines

- ▶ Web Content Accessibility Guidelines (WCAG 2.0) published by the World Wide Web Consortium ([www.w3c.org](http://www.w3c.org))
- ▶ Section 508 Amendment to the Rehabilitation Act of 1973 (Section 508)
- ▶ What is the baseline or benchmark for web accessibility?

# WCAG 2.0 Principles

- ▶ Perceivable
  - ▶ Operable
  - ▶ Understandable
  - ▶ Robust
- 
- ▶ 12 guidelines

# Web/Digital Accessibility Conformance

- ▶ **A (Lowest)** : visitors will find it impossible to use some pages or functionality. These issues should be fixed as soon as possible and comprehensively.
- ▶ **AA:** visitors will find it difficult to use some pages or functionality. These issues do not need to be fixed right away but should still be addressed as soon as possible.
- ▶ **AAA (Highest)** visitors will find it somewhat difficult to use some pages. These issues do not carry the same urgency as the first two priorities, however we still recommend they are repaired so visitors can engage with your content more successfully

# Key Takeaways

## Universal Design!

1. Universal Design
2. Accessibility Accountability
3. Different Viewpoints benefit all



“Today we are the shapers of the world of tomorrow.” – Walt Disney

# Web Accessibility Checkers

- Use Screen Reader software/plugins (VoiceOver; NDVA)
- Web Accessibility Evaluation Tools
  - WAVE Browser Plugin
  - SiteImprove
- Before and After Resource  
<https://www.w3.org/WAI/demos/bad/Overview.html>



# SiteImprove Plug-in

**Siteimprove** Accessibility Checker

Choose filters

### Issues

#### Text Alternatives

- A** Non-text Content 1.1.1 **34** instances

#### Adaptable

- A** Info and Relationships 1.3.1 **239** instances

#### Distinguishable

- A** Use of Color 1.4.1 **27** instances
- AA** Images of Text 1.4.5 **74** instances
- AAA** Contrast (Enhanced) 1.4.6 **11** instances

#### Enough Time

- A** Timing Adjustable 2.2.1 **1** instance

#### Navigable

- A** Link Purpose (In Context) 2.4.4 **239** instances
- AA** Focus Visible 2.4.7 **5** instances

**GALLAUDET ATHLETICS**

Sports Schedules Department Recruits Academics Fans Visitors **Giving**


CALENDAR SCOREBOARD SOCIAL VIDEOS RECENT NEWS

OCT 2017 No events today

BASEBALL VS. PGCC FINAL  
OCT 22 L 12-11 V

DONATE NOW **SUPPORT BISON ATHLETICS**

# WAVE Plug-in


**WAVE**  
 web accessibility evaluation tool

Styles No Styles Contrast

### Documentation

#### Features

**Linked image with alternative text**

**What It Means**  
Alternative text is present for an image that is within a link.

**Why It Matters**  
Including appropriate alternative text on an image within a link ensures that the function and purpose of the link and the content of the image is available to screen reader users or when images are unavailable.

**How to Fix It**  
Ensure that the alternative text presents the content of the image and/or the function of the link. If the full content and function of the link is presented in text within the link (an image and a text caption both within the same link, for example), then the image should generally be given empty/null alternative text (alt="") to avoid redundancy.

**The Algorithm... in English**  
An image element has non-empty alternative text, is within a link, and no other text (or images with alternative text) is present within the link.

**Standards and Guidelines**

- Section 508 (a)
- 1.1.1 Non-text Content (Level A)
- 2.4.4 Link Purpose (In Context) (Level A)

[Icon index](#)

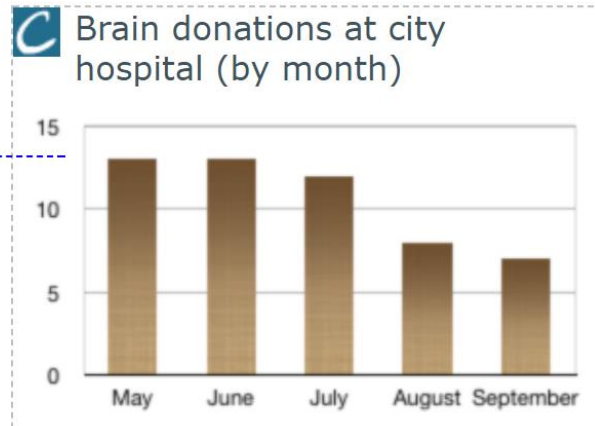


The screenshot shows the Gallaudet Athletics website with various accessibility annotations from the WAVE plug-in. The website header includes the Gallaudet University logo and navigation links for Sports, Schedules, Department, Recruits, Academics, and Fans. The main content area features a large blue banner with the text "GALLAUDET ATHLETICS" and a navigation menu. Below the banner, there are links to "Gallaudet University Website", "NCAA Division III", "North Eastern Athletic Conference Website", "MEDSTAR Sports Medicine Website", and "Prestosports Website". The footer includes a table with sports events: WOMEN'S SOCCER, AT ST. ELIZABETH, and FINA. The WAVE annotations highlight several instances of "Linked image with alternative text" and "Alternative text is present for an image that is within a link".



# Before: Chart

## Lack of Brains Hinders Research





### Note 09: Diagram representation unclear

[Close](#)

This diagram does not have any text alternative and is of very poor quality so that it is unclear what it represents.

```

```

### Success Criterion 1.1.1 - Non-text Content

[Failure 30](#): Failure of Success Criterion 1.1.1 and 1.2.1 due to using text alternatives that are not alternatives (e.g. filenames or placeholder text)

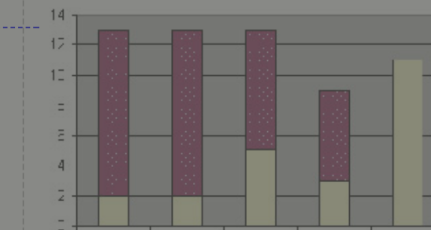
[Back to demo](#)

### Return To Sender

When questioned whether their results would be affected if air conditioners were found to be used on cold days, Wahoonie responded: "we had one guy in the lab whining those kinds of questions. 'Why are you doing this? Why are there all those discrepancies in the department accounts?', but it was after we had written up the results. We later found that he took 40% of his sick days on Mondays or Fridays. How convenient. Some people have no shame."

## Lack of Brains Hinders Research

### Brain donations at city hospital (by month)



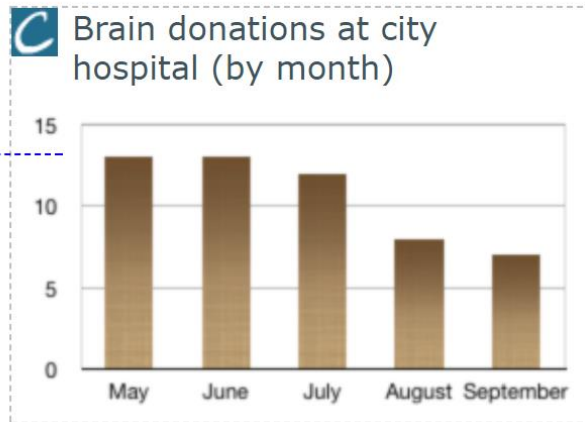
### Air-Con Fact Finding Mission



There has been a significant drop in brain donations as a result of the successful 'Slow Traffic, Safe Streets' policy, say city doctors. "Brain donations are essential" said Dr. Liam Colluspid of Central Hospital, at a press conference yesterday. "I must ask that the Mayor either dispenses with these road safety measures, or else that every concerned citizen should

# After: Descriptive Chart

## Lack of Brains Hinders Research



``

### Note 09: Illustrative diagram representation

[Close](#)

This diagram has an appropriate text alternative and provides a useful illustration to clarify a meaning.

```

```

### Success Criterion 1.1.1 - Non-text Content

**General 94:** Providing short text alternative for non-text content that serves the same purpose and presents the same information as the non-text content

### Guideline 3.1 - Readable

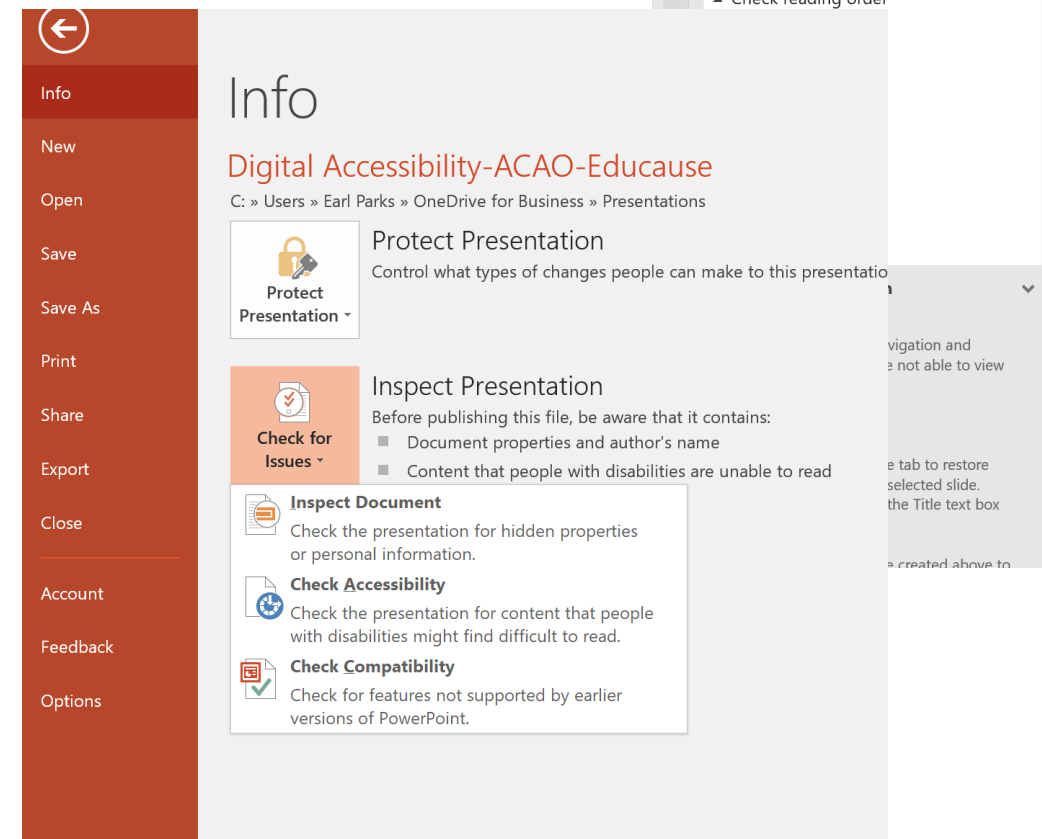
**Advisory Technique:** Using images, illustrations, video, audio, or symbols to clarify meaning (future link)

[Back to demo](#)

### Air-Con Fact Finding Mission

# Going Native: “Born Digital”

- Applications have accessibility features, checkers, and fixes.
- MS Office
- Adobe Acrobat Professional
- Structured Content (Titles, Headings, styles)
- Descriptive Content (Alt Text, etc.)
- Descriptive File Names



# Resources and Vendors

- [W3C](#) (World Wide Web Consortium)
- [A11Y Project](#)
- [SOAP](#) (Stanford Online Accessibility Program)
- [Blackboard Ally](#)
- [Perkins Center on Digital Accessibility](#)
- [Site Improve](#) Web Governance
- [Brailleworks](#) Document Accessibility Service

# Checklists and Tools

- ▶ [WCAG 2.0 Checklist](#)
- ▶ [Section 508 Checklist](#)
- ▶ [Color Contrast Checker](#)
- ▶ [Web Accessibility for Designers](#)
- ▶ [WAVE Web Accessibility Evaluation Tool](#)