

# Digital Accessibility Practices for Motor & Cognition

**Presented by:**



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# Digital Accessibility Series

~~1. July 12<sup>th</sup> – Vision~~

~~2. July 19<sup>th</sup> – Hearing~~

3. July 20<sup>th</sup> – Motor & Cognition

4. July 27<sup>th</sup> – General Best Practices

## **At the conclusion of the session, participants will be able to...**

- Identify at least two web content accessibility guidelines that enable or improve digital access for individuals who have motor and cognitive impairments.
- Identify at least two built-in accessibility features that enable or improve digital access for individuals who have motor and cognitive impairments.

# **Learning Objectives**



# **Story Time: Everyday Digital Accessibility Interactions**

# Accessibility Matters. It's the Law.



## **Americans with Disabilities Act (ADA)**

- Civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life. (ADA National Network)
- Courts ruled that websites and digital platforms are places of public accommodation under the ADA (Title IV - Telecommunications).

## **Section 508 of the Rehabilitation Act & Section 255 of the Communications Act**

- Web Content Accessibility Guidelines (WCAG) are considered the de facto online standards.

[Motor Disability Rights Cases](#)

[Cognitive Disability Rights Cases](#)

# Accessibility Matters. It's a Fact.



## **Diversity is a fact.**

- Globally, **121** million people have motor disabilities and **200** million people have cognitive disabilities.
- [ADA – Participation Action Research Consortium \(ADA PARC\)](#)
- [University of Montana – Disability Counts](#)

## **Diversity is the norm.**

- As with the whole population, persons with disabilities differ widely.

# Types of Motor Disabilities

## Persons with Motor Disabilities

- Do and Don't use mobility devices (i.e., walkers, canes, prosthetics, orthotics)
- ALS
- Arthritis
- Parkinson's disease

## Traumatic Injuries

- Quadriplegia (SCI)
- Loss or damage of limb(s)

## Diseases and Congenital Conditions

- Cerebral palsy
- Muscular dystrophy
- Multiple sclerosis



# Types of Cognitive Disabilities

## Clinical Classifications

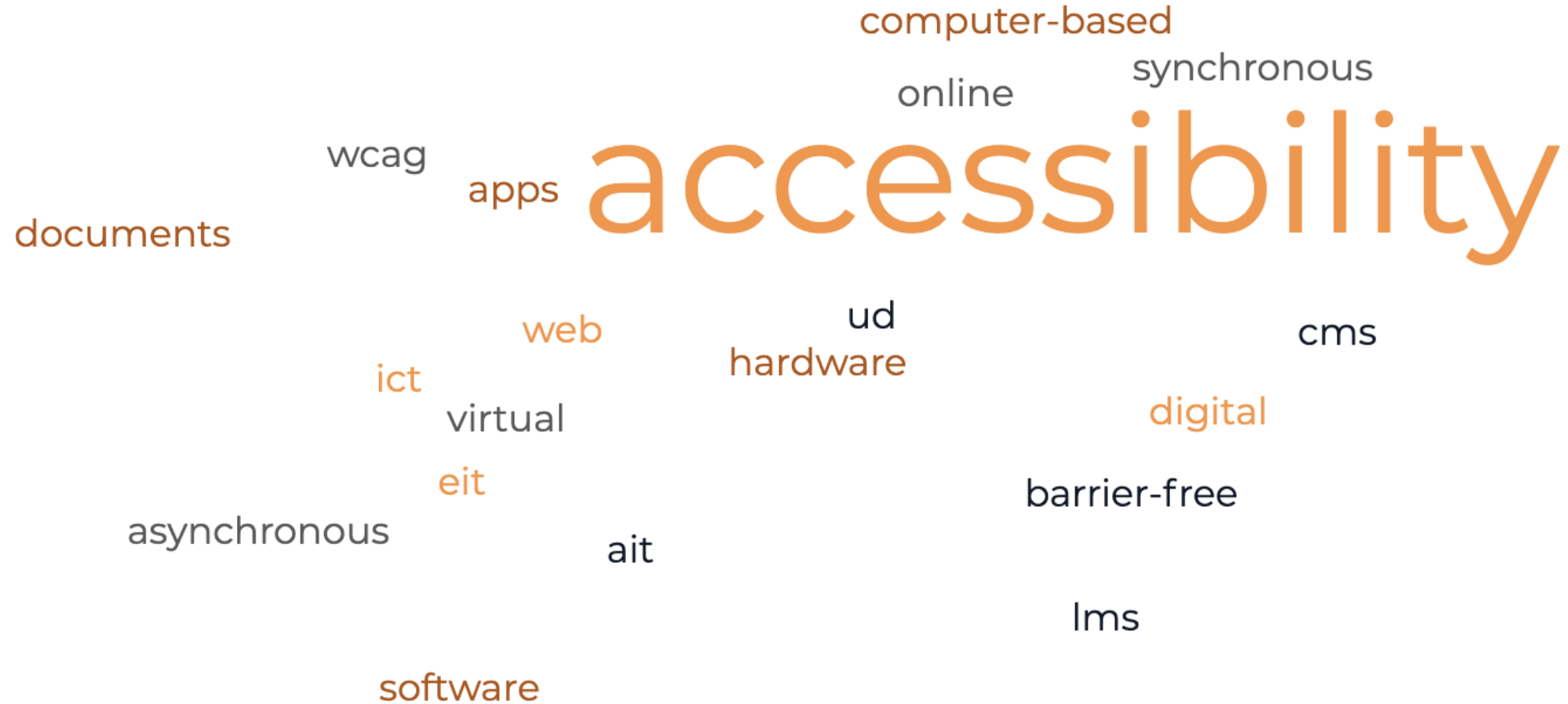
- Autism
- ADHD
- Down syndrome
- Traumatic brain injury (TBI)
- Dementia
- Dyslexia or learning disabilities
- Mental health

## Functional Classifications

- Memory
- Problem-solving
- Attention
- Reading, linguistic, and verbal comprehension
- Math comprehension
- Visual comprehension



# Common Terms



# WCAG Key Concepts: Motor Part 1

POUR (Perceivable | **Operable** | Understanding | Robust):

- **If your website utilizes time-based media, give users non-timed alternatives.**
  - **Example 1:** Text version that conveys information equivalent to an automatically playing audio file.
  - **Example 2:** Option to turn off time limits before they encounter them or to extend an allotted time period.
- **Web pages should appear and operate in predictable ways.**
  - **Example:** Navigational elements displayed site-wide should always appear the same.

# WCAG Key Concepts: Motor Part 2

POUR (Perceivable | **Operable** | Understanding | Robust):

- **Assist users in correcting or avoiding errors.**
  - **Example 1:** Make sure form submissions are reversible, can be corrected, and are reviewable before users finalize their submission.
- **All functionality on your website should be available from a keyboard.**

# WCAG Key Concepts: Cognition Part 1

POUR (**P**erceivable | **O**perable | **U**nderstanding | Robust):

- **Compatible with screen readers**
  - Appropriate alternative text
- **Simple layouts, text, and tasks**
  - Break up tasks into separate pages
  - Include progress indicators such as “step 2 of 4”
  - Instead of “Previous Page” or “Next Page” say “Back to Payment and Shipping Information” and “Next: Review Order”
- **Assist users in correcting or avoiding errors.**

# WCAG Key Concepts: Cognition Part 2

POUR (Perceivable | Operable | **Understanding** | Robust):

- **Use visual cues to highlight important points**
- **Clear and simple writing**
  - Organizing your ideas
  - Introduce, explain, and summarize
  - Stay on point
  - Make it interesting
  - Write for your audience
  - Recommended reading level of 8<sup>th</sup> to 9<sup>th</sup> grade

# **WCAG + Teaching others how to use built-in features = Best Practice**

# Digital Built-In Features

## Apple Accessibility



YouTube Video: The Greatest | CC & Transcript available on YouTube

# Apple Accessibility - Motor

- Voice Control
- Switch Control
- AssistiveTouch
- Alternative Input
- Back Tap
- Siri
- Touch Accommodations
- Slow & Sticky Keys
- Accessibility Keyboard
- Dictation
- Predictive Text
- Activity & Workout App
- For more information, visit [Apple Accessibility](#)





# Apple Accessibility - Cognition

- Live Captions
- Background Sounds
- Spoken Content
- Safari Reader
- Guided Access
- Facial Recognition
- iCloud Keychain
- Find My
- Dictation
- Siri
- Hover Text
- Focus
- Predictive Text
- Screen Time
- For more information, visit [Apple Accessibility](#)



# Google Accessibility - Motor

- Action Blocks
- Camera Switches
- Switch Access
- Voice Access
- Keyboard Browsing
- Keyboard Shortcuts
- Automatic Click
- Dictation
- For more information, visit [Google Accessibility](#)



# Google Accessibility - Cognition


- Action Blocks
- Google Assistant
- Dictation
- [Contact Disability Support](#)
- For more information, visit [Google Accessibility](#)



# Microsoft Accessibility

- Word & PowerPoint
  - Spelling & Grammar > Thesaurus
  - Review > Check Accessibility
  - Review > Translate
  - Review > Smart Lookup
  - Layout features

# Virtual Presentations

- Share accessible documents and media with attendees
  - File uploads in-meeting chat
- Ensure readability
  - Flesch-Kincaid Grade Level: 8<sup>th</sup> to 9<sup>th</sup> grade
  - Use bullets instead of bulk text when possible
- Avoid visual content that moves rapidly or flashes, flickers, or blinks due to [photosensitivity and seizures](#) 
- Provide context or opportunities to learn more using descriptive links, videos, or images
- Build in breaks or activities every 15 to 20 minutes

# Resources

- [World Wide Web Consortium \(W3C\)](#)
- [WebAIM](#)
- [Nebraska ATP Partnership](#)
- [Apple Accessibility – Motor](#)
- [Apple Accessibility - Cognition](#)
- [Google Accessibility](#)
- [Microsoft Office Accessibility](#)
- [AT-on-Demand](#)

# Connect with Molly

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