Disability Awareness, Legal Landscape, and Brief Overview of WCAG

Johan Rempel

John Toles

Live Captions Provided
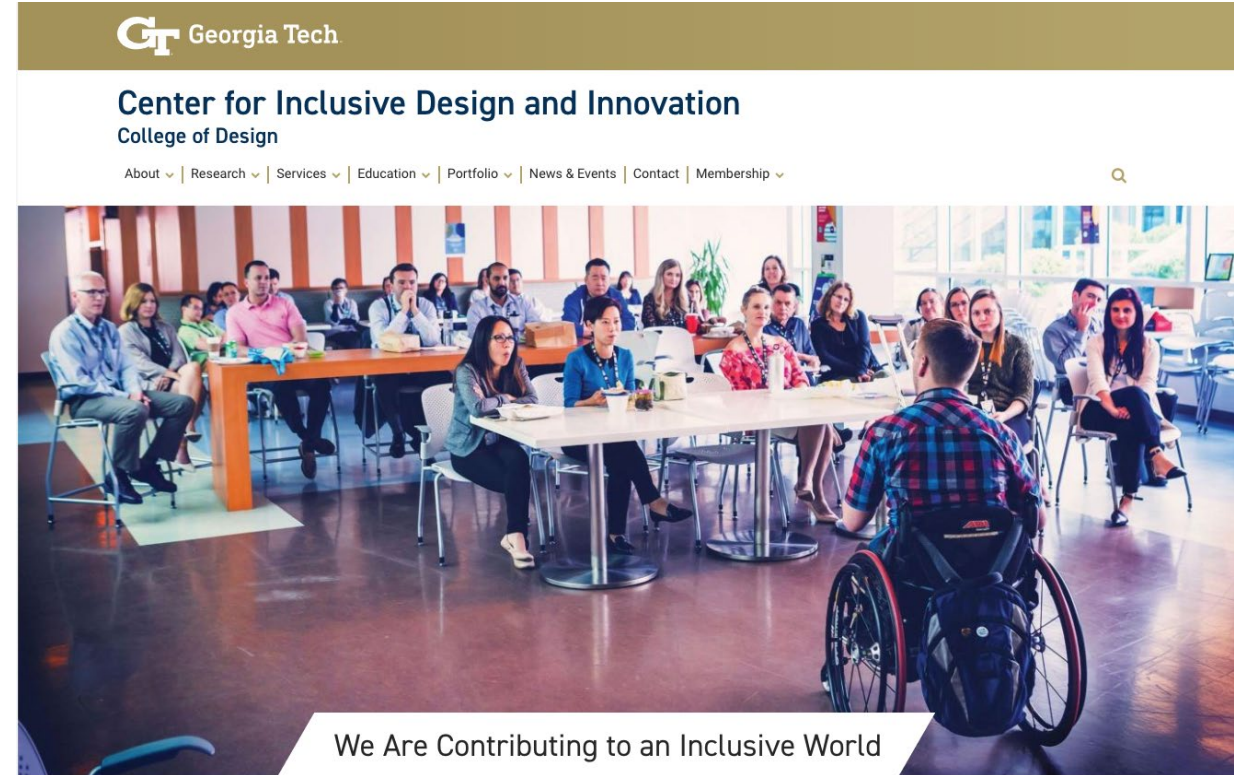
Two Options:

1. Access StreamText link available in the "Chat" ("Chat" control in Zoom toolbar)

2. Access the "Closed Captions" option ("Closed Captions" control with "CC" above it in Zoom toolbar)

Georgia Tech – CIDI

- Research (disability-related)

- Accessibility Consulting – ICT and UX

- Braille Services

- Captioning and Described Audio Services

- Professional E-Text Producers

- Certified Assistive Technology Team
  - Tools for Life is celebrating 30 years of service in 2021!

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We Are Contributing to an Inclusive World

Today's Presenters

John Toles, Digital Accessibility Specialist, CIDI

John Toles has been employed with Center for Inclusive Design and Innovation (CIDI) since 2016. He provides technical assistance and services through the CIDI Customer Support team to Higher Ed institutions across the country. He also develops and maintains several of CIDI internal and public-facing applications and works closely with the ICT Accessibility team to provide web accessibility evaluations, technical assistance and training.

Johan Rempel ICT-UX Quality Assurance Mgr

Johan oversees the UX/ICT Accessibility unit at Center for Inclusive Design and Innovation. He has extensive experience as an AT Specialist, Vision Rehabilitation Therapist, Orientation & Mobility Specialist, and Digital Accessibility Specialist. John oversees a number of Information and Communication Technology (ICT) Accessibility initiatives, including the AccessGA initiative.

Goals for Today's Presentation

1. Learn of the Assistive Technology solutions used by people with disabilities

2. Learn about the national laws and requirements in place related to digital accessibility

3. Learn the basics of WCAG, including the meaning of the P.O.U.R principles

4. Learn of the new success criteria that have been introduced with WCAG 2.1

Accessibility

**Different Meanings
for Different People**

Various Definitions of Accessibility

- Capable of being reached

- Easy to speak to or deal with

- Capable of being used or seen

- Capable of being influenced

- **Easily used or accessed by people with disabilities**

Accessibility and People with Disabilities

Accessibility occurs when environments, products, and services are designed in a way that people with disabilities can fully use them. Individuals are more empowered and productive in the workplace. Examples of accessibility range from a wheelchair ramp in a physical environment to closed captioning of presentations in a work environment. (Microsoft)

People with Disabilities

More than 1,000,000,000 People Worldwide (WHO)

How People with Disabilities Use the Web

- Visual

- Auditory

- Mobility

- Cognitive and Neurological

- Speech

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Living with a Disability

According to the CDC, 1 in 4 adults in the US are living with a disability that can affect their ability to:

- see
- hear
- communicate
- reason
- walk
- perform other basic life functions

CDC

CENTERS FOR DISEASE CONTROL AND PREVENTION

Assistive Technology Solutions
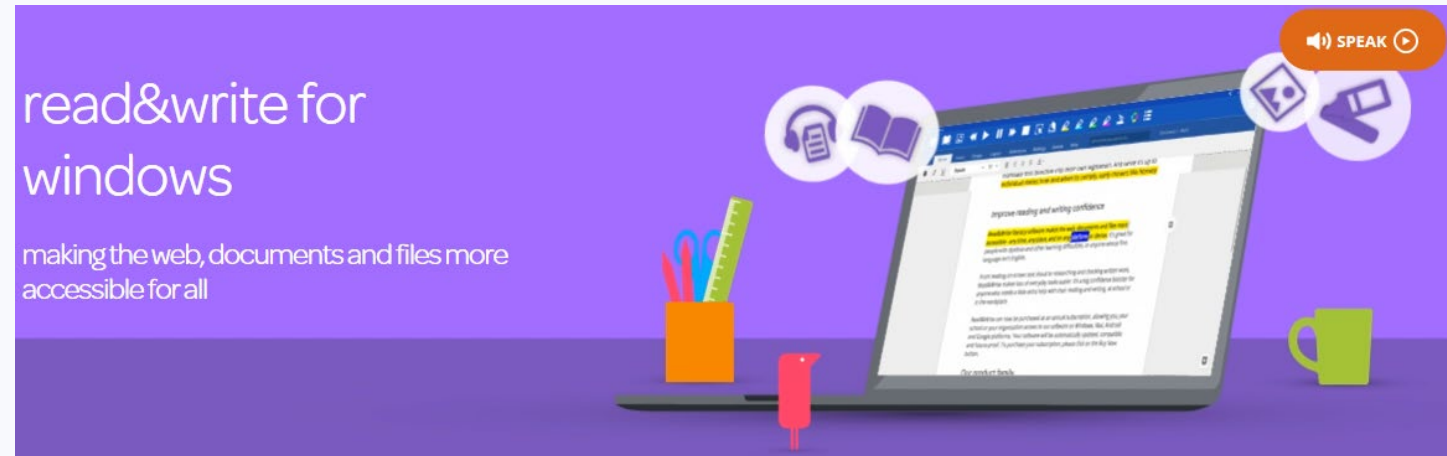
Tools used by People with Disabilities

ClaroRead

- Text-to-Speech

- Visual Highlighting

- Read back any on-screen text and program commands

- High Quality Screen Reader

- Keyboard Echo

- Save to Audio

Read & Write

- Text-to-Speech software

- hear text read aloud

- look up words in the dictionary or picture dictionary with a click

- write with word prediction

- highlight and collect information from the web

read&write for windows

making the web, documents and files more accessible for all

SPEAK

Read&Write
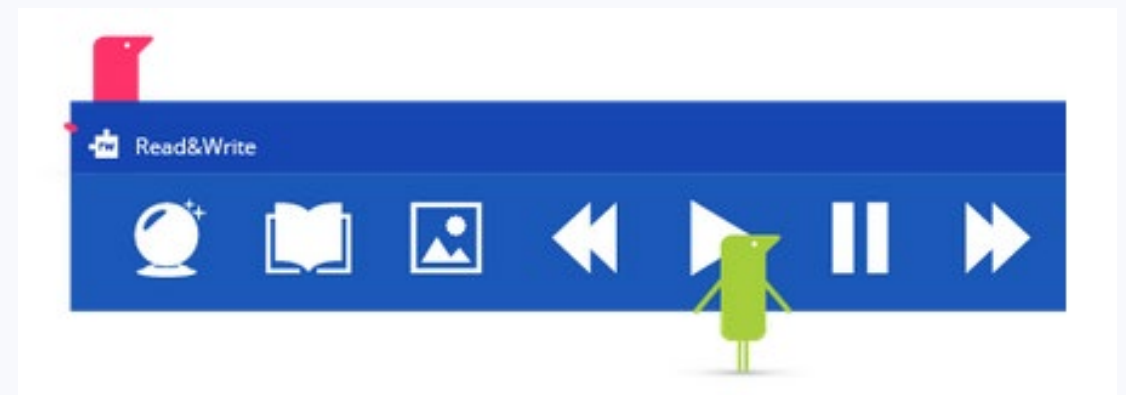
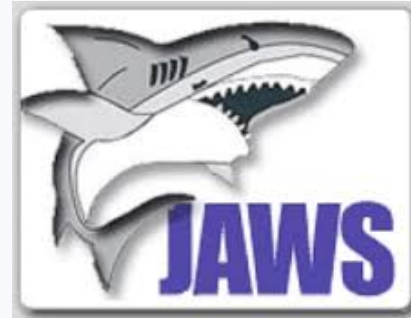# Screen Magnification Programs

- MAGic

- ZoomText

- Windows Magnifier

- Mac Zoom

- Zoom and Magnifier (iOS & Android)
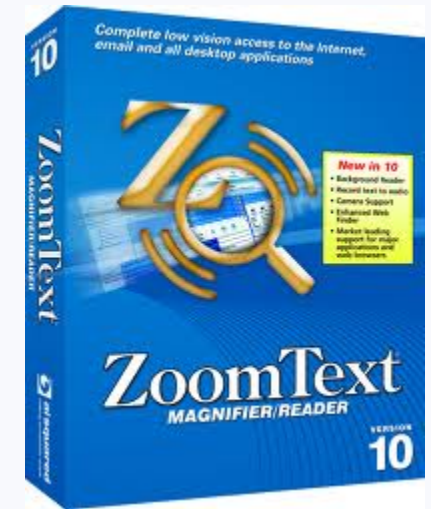
Commonly Used Screen Readers

Common AT Testing Tools for Desktop/Laptop

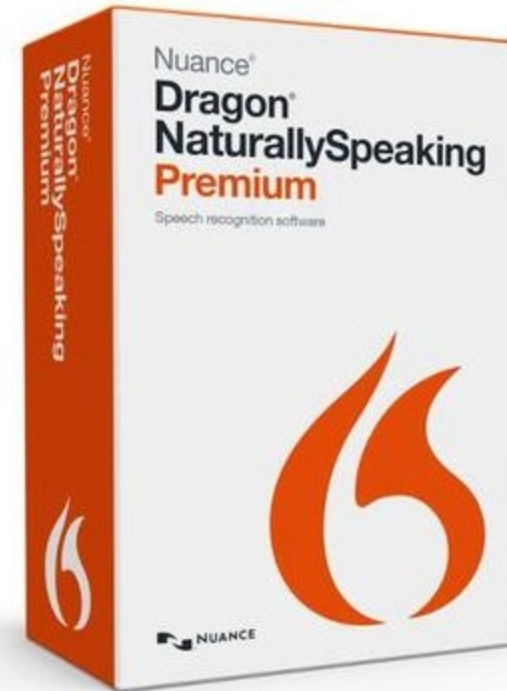- JAWS

- NVDA

- VoiceOver for the Mac

Mainstream Tech
as
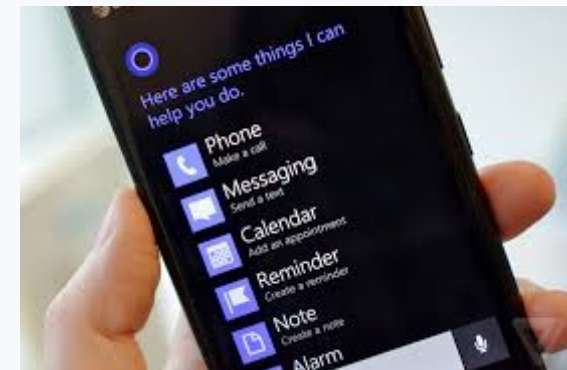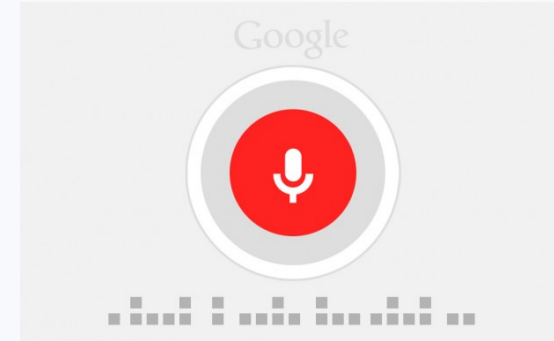# Assistive Technology

Speech Recognition Software

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Turn spoken words into text

Connect with the timing of your thoughts

Dictation speed 70 to 100 words per minute

Nuance®
Dragon®
NaturallySpeaking
Premium

Speech recognition software

NUANCE

Mainstream Solutions as Assistive Technology

- Siri (Apple)

- Google Now

  (Google)

- Cortana

  (Microsoft)

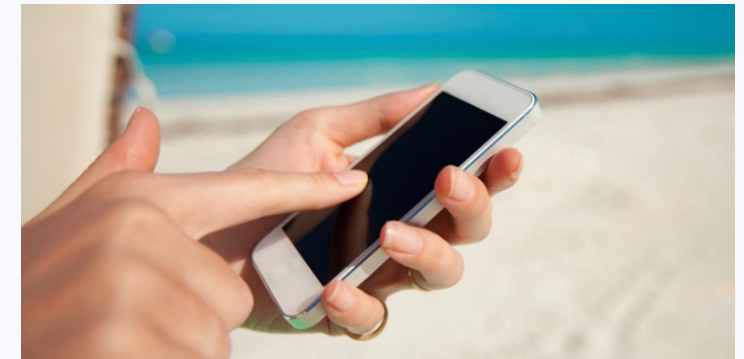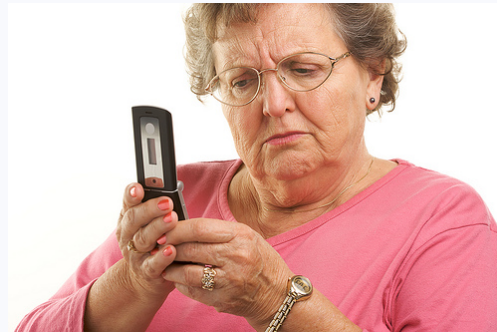# Text-to-Speech/Speech-to-Text Solutions

HomePod, Echo, and Home size comparison

Mobile More Important Than Ever

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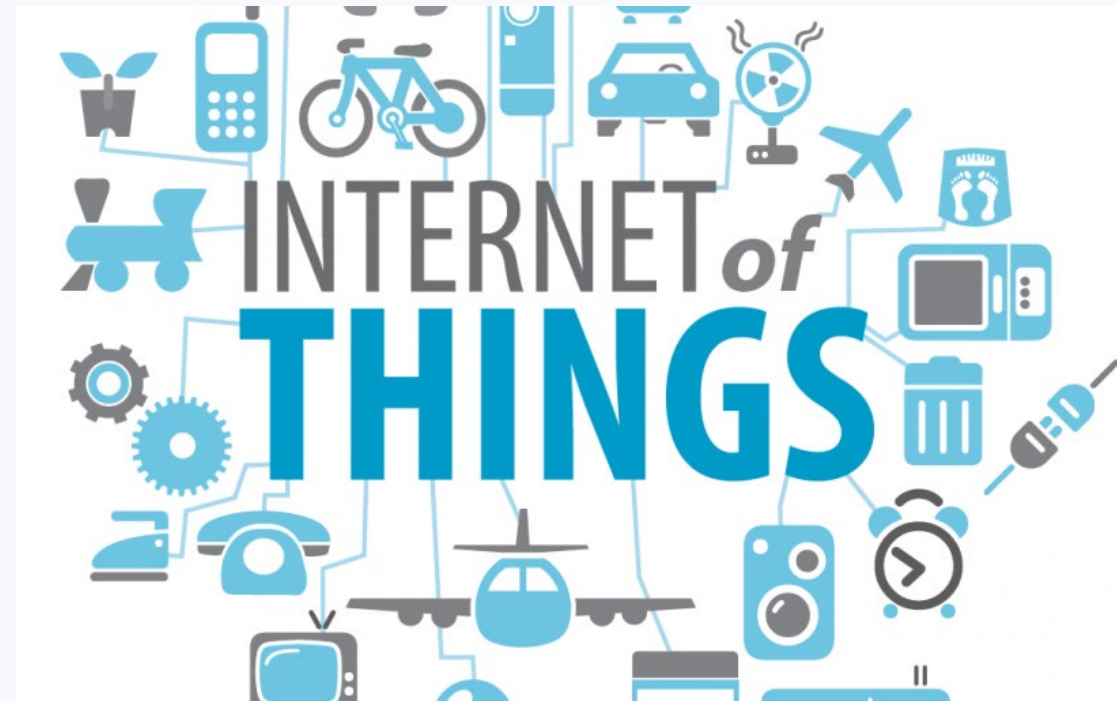
- Noisy Spaces
- Using One Hand
- Multitasking- Driving or Walking
- All Ages Using Mobile
- Small-sized touchscreens
- Outdoor use in bright light

More than Just Phones & Tablets

- Car interfaces

- Home Automation

- Wearables (smart watch/headborn

  devices)

- Videogame controllers

- Emerging Markets

Legal Landscape

Lack of IT Accessibility in the ADA

- The ADA was not intended by disability advocates or its framers to apply to information technology.

- Largely, this was because most information technology at the time was text-based, and largely accessible.

Title I of the ADA

- Title I of the ADA requires employers to make "reasonable accommodations" for job-seekers with disabilities.

- This could include making online job applications and career websites accessible.

Title II of the ADA

- Title II of the ADA requires that state and local governments provide "program access" for people with disabilities.

- If state and local government websites are a "program," it could be argued that they would need to be accessible, absent an undue burden.

DOJ Excerpt from technical document entitled "Effective Communication"

The ADA requires that title II entities (State and local governments) and title III entities (businesses and nonprofit organizations that serve the public) communicate effectively with people who have communication disabilities. The goal is to ensure that communication with people with these disabilities is **equally effective** as communication with people without disabilities. U.S. Department of Justice document

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Title III prohibits discrimination on the basis of disabilities in places of public accommodations, commercial facilities, and private entities that offer certain examination and courses related to educational and occupational certification.

- Title III of the ADA states that "places of public accommodation" shall be accessible.

- A great deal of time and energy has been devoted to defining "place."

Section 504

Civil Rights Law

Section 504 of the Rehabilitation Act, as amended

U.S. Department of Justice (DoJ)

Education Programs and Activities

ICT Refresh
(Section 508 Refresh)

- U.S. Access Board Final Rule published Jan. 18, 2017

- Harmonized with WCAG 2.0

- Many state and local governments have adopted the ICT Refresh and/or the WCAG standards as statutes, regulations, or policies

Overview of WCAG

WCAG 2.0 (Level A/AA)

The World Wide Web Consortium's Web Accessibility Initiative (W3C-WAI) developed Content Accessibility Guidelines (WCAG).

WCAG 2.0: published as a final W3C recommendation in December, 2008

WCAG 2.1 published in June, 2018 - incorporates WCAG 2.0 with updates related to mobile accessibility, people with low vision, and people with cognitive and learning disabilities

- Level A: Essential requirements to meet, otherwise it will be impossible for one or more groups to access the web content.

- Level AA: Necessary requirements to meet, otherwise some groups will find it difficult to access the web content.

Three Levels of WCAG

Level A   **Essential requirements to meet,** otherwise it will be impossible for one or more groups to access the web content.

Level AA   **Necessary requirements to meet,** otherwise some groups will find it difficult to access the web content.
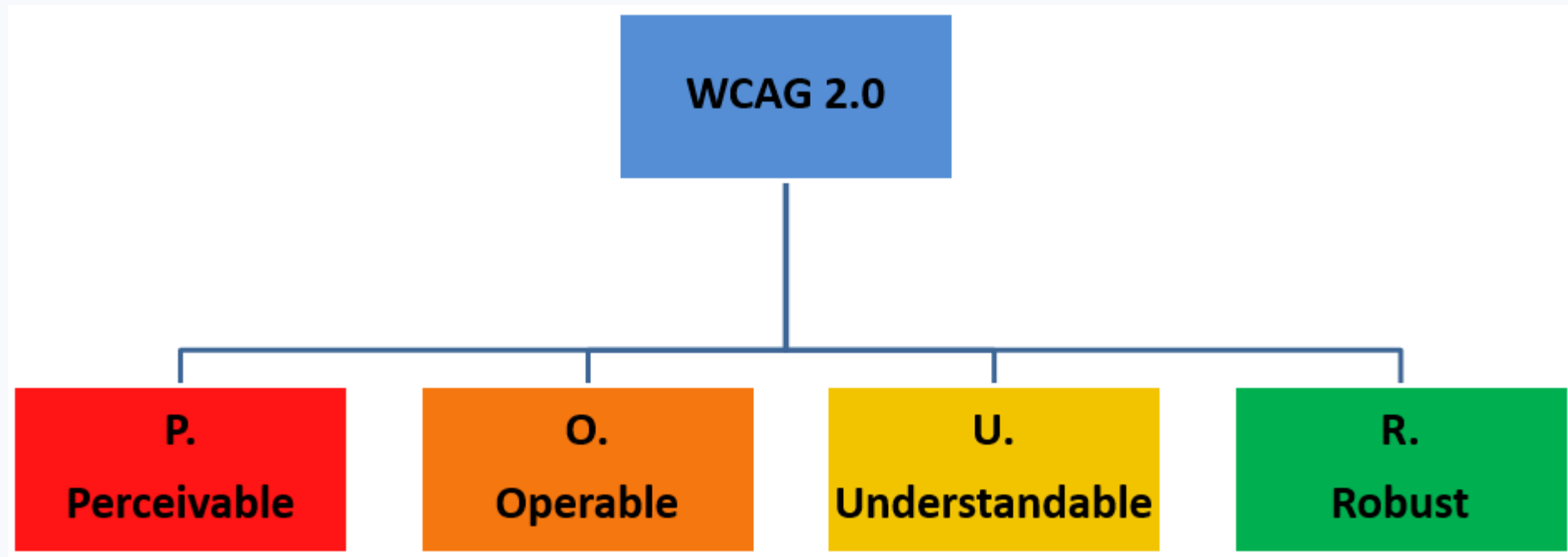
Level AAA   **Best practice:** In order to make it easier for some groups to access the web content.

The Foundation of WCAG 2.0

WCAG 2.0 was introduced in 2008

- Builds on WCAG 1.0

- Organized around four design principles of web accessibility.

  - Perceivable

  - Operable

  - Understandable

  - Robust

Principles of WCAG 2.0

WCAG Quick Reference Guide

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Customizable quick reference to WCAG requirements and techniques

The WCAG Quick Guide – https://www.w3.org/WAI/WCAG21/quickref/

WCAG Principle: Perception

Perceivable

- 1.1 Non-text content

  - Images missing alt text

- 1.2 Time-based media

  - Inaccurate/inadequate captions and/or transcripts

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Perceivable

- 1.3 Adaptable content

  - Illogical reading order for content

  - Heading content not marked up as such

- 1.4 Distinguishable content

  - Insufficient color contrast for regular text and links

  - Images of text

WCAG Principle: Operation

Operable

- 2.1 Keyboard accessible

  - Hover-only menus

  - Keyboard traps

  - Mouse-only elements

- 2.2 Enough time

  - Websites with session timeouts

WCAG Principle: Operation (continued)

Operable

- 2.3 Seizures
  - Content flashing for longer than three seconds
- 2.4 Navigable
  - Missing 'Skip to Main Content' link
  - Visible focus indicator
  - Focus order

WCAG Principle: Understandable

Understandable

- 3.1 Readable content

    - Missing language attribute in HTML code

- 3.2 Predictable content

    - Inconsistent navigation

    - Context changes on input

- 3.3 Input Assistance

    - Inaccessible error message

    - Visible labels

WCAG Principle: Robust

Robust

- 4.1 Compatible content

  - Incomplete start and end tag

  - Duplicate IDs

  - Duplicate attributes on the same element

  - Inappropriate attributes or values for attributes

WCAG 2.1 Updates – Success Criteria

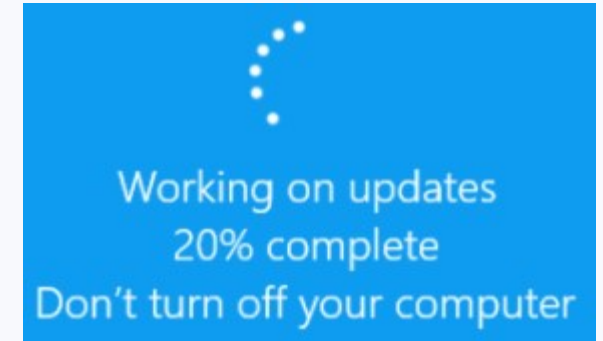WCAG 2.1 added new success criteria to address:

- Mobile accessibility

- Users with low vision

- Users with cognitive and learning disabilities

WCAG 2.1 Updates – Guidelines

There are 17 new success criteria under the following guidelines:

- 1.3 Adaptable
- 1.4 Distinguishable
- 2.1 Keyboard Accessible
- 2.2 Enough Time
- 2.3 Seizures and Physical Reactions
- 2.5 Input Modalities
- 4.1 Compatible

Questions and Answers