Accessibility Planning
Part 01: Background

This document complements the video
"Accessibility Planning – Part 1: Background" available at:
https://laudatotech.com/accessibility-planning-part-01-background/

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Background

This document provides a written alternative (not a transcript) of *Part 01 – Background* of the *Accessibility Planning* series of videos for those who prefer text to video. The videos are available on the YouTube Channel hosted by Laudato Technology Solutions.

This episode:

- Provides definition of ICT accessibility.
- Provides sample of accessibility statistics.
- Addresses the question of "Why Does Accessibility Matter?"

Subsequent episodes will address:

- Accessibility Aspirations
- Accessibility-related Standards
- ICT Accessibility Framework and Methodology
- Accessibility Responsibilities
- Components of an ICT Program

DEFINITION OF "ICT"

In 2017, Section 508 of the Rehabilitation Act of 1973 was amended to, among other things, supersede its defined scope of EIT (Electronic and Information Technology) to encompass the new definition of ICT (Information and Communication Technology). [1]

This series of videos focuses on ICT accessibility as defined as follows:

> *… any information technology, equipment, or interconnected system or subsystem of equipment for which the principal function is the creation, conversion, duplication, automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, reception, or broadcast of data or information.* [2]

This definition includes, for example, computers, peripherals, kiosks, transaction machines, telecommunications, office equipment; software; applications; websites; videos; and electronic documents.

This series focuses on people with disabilities and their ability to access and use institutional information and communication technologies (ICT). Disabilities include:

- Visual difficulties, such as low vision, blindness, and color blindness,
- Audio and speech disabilities,
- Motor disabilities, and,
- Cognitive disabilities.

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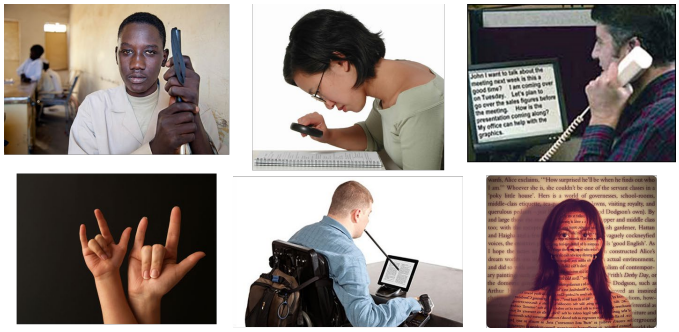
[1] Section 508 Refresh from 1/18/2017 replaces EIT with ICT https://www.federalregister.gov/documents/2017/01/18/2017-00395/information-and-communication-technology-ict-standards-and-guidelines

[2] Definition of ICT: https://www.section508.gov/content/glossary

Figure 1: Individuals with vision, hearing, speech, motor, and cognitive disabilities



STATISTICS ABOUT ACCESSIBILITY

Blackboard, a leading learning management system (LMS) vendor, created an infographic that summarizes accessibility statistics in education[3] based on sources like the *World Health Organization* and the *National Center for Education Statistics*. Blackboard reports that only 16% of North American students with disabilities earn college degrees.

Figure 2: How visual, hearing, physical, and cognitive disabilities impact learning (Blackboard)

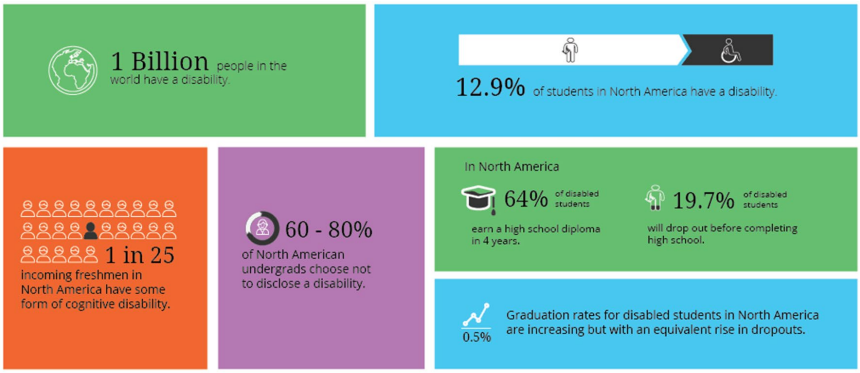
1. **Visual disabilities** involve sensory challenges that make it difficult to perceive visual content. Students need text-based alternatives to consume visual content.
   - 3% of global population have visual disabilities.
   - Less than 1% of students in North America.

[3] Blackboard has provided the following infographic on accessibility in education: https://help.blackboard.com/Accessibility/Accessibility_in_Education

2. **Hearing disabilities** involve sensory challenges that make it difficult to perceive auditory content. Students with hearing difficulties may need captions, transcripts, or other alternatives to audio.
   - 5% of global population have hearing disabilities.
   - Less than 1% of students in North America.
3. **Physical disabilities** involve challenges with muscle and motor control that make using technology difficult. Impacted students need content formatted for keyboard and assistive technology.
   - 4% of global population have physical disabilities.
   - Approximately 4% of students in North America.
4. **Cognitive disabilities** involve neurological challenges that make it difficult to process information. Impacted students need multiple modes of information and a clutter-free experience.
   - 25% of global population have cognitive disabilities.
   - Approximately 9% of students in North America.

Additionally, Blackboard found that one billion people in the world have a disability. Notably, between 60 and 80% of North American undergraduate students do not disclose their disabilities.

Figure 3: How disabilities impact learning (Blackboard)



The Centers for Disease Control and Prevention (CDC) Disability and Health Data System (DHDS)[4] reports that, for Americans aged 18 and over, 26% have some form of disability, based on 2018 data. These disabilities are of several types, including:

- Independent Living: 6.8%
- Self Care: 4%
- Visual: 5%
- Mobility: 12.4%
- Hearing: 5.9%
- Cognitive: 11.5%

[4] CDC Disability and Health Data System (DHDS) https://dhds.cdc.gov/

Figure 4: CDC Data on Disabilities in USA Ages 18 and over in 2028

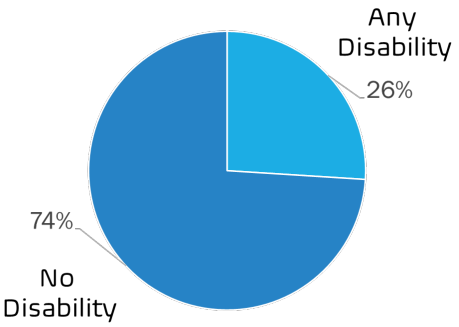
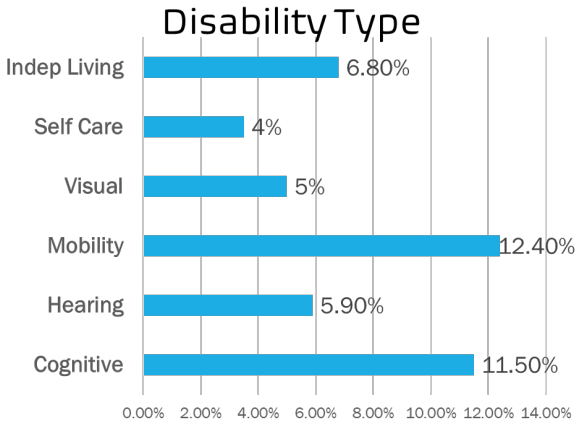


Figure 5: CDC Data on Disability Types



PRINCIPLES OF ACCESSIBILITY

Four principles of accessibility[5]:

The guidelines and Success Criteria are organized around the following four principles, which lay the foundation necessary for anyone to access and use Web content. Anyone who wants to use the Web must have content that is:

Perceivable - Information and user interface components must be presentable to users in ways they can perceive.

This means that users must be able to perceive the information being presented (it can't be invisible to all of their senses)

Operable - User interface components and navigation must be operable.

This means that users must be able to operate the interface (the interface cannot require interaction that a user cannot perform)

[5] Web Content Accessibility Guidelines 2.0 https://www.w3.org/TR/UNDERSTANDING-WCAG20/intro.html

Understandable - Information and the operation of user interface must be understandable.

This means that users must be able to understand the information as well as the operation of the user interface (the content or operation cannot be beyond their understanding)

Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

This means that users must be able to access the content as technologies advance (as technologies and user agents evolve, the content should remain accessible)

If any of these are not true, users with disabilities will not be able to use the Web.

Why Does Accessibility Matter?

Given that over one in four Americans have some form of disability, four factors argue for addressing issues of ICT accessibility:

1. **Fairness**: Regardless of disability, equitable access for all people to education and job opportunities is both fair and ethical.
2. **Legal**: Federal law requires that technology and electronic content be accessible in higher education.
3. **Risk Avoidance**: Lawsuits and complaints can be extremely costly, both financially and operationally. Even out-of-court settlements can impose onerous terms and require modification to established academic policies, procedures, technologies, and content.
4. **Effectiveness**: Content that is created to be accessible to the broadest possible audience can communicate better and be significantly more effective instructionally. For example, captioned videos can be more effective because they reinforce, in writing, the content of the video. Providing alternative sources of content allows your audience to select the most effective and efficient form for their immediate circumstances and preferences.

The next episode will address how to translate this information to a set of realistic aspirations for your institution.