

Digital Accessibility: Promoting Real-Time Access to Learning for Students with Disabilities

Digital learning materials remain a barrier for many students who require accessible materials. When this occurs, they are denied access to the curriculum and this impedes their ability to achieve positive learning outcomes including: meeting state standards in literacy, mathematics, and science; graduating with a regular high school diploma; and transitioning readily to career training and/or post-secondary education.

Far too many PreK-12 classrooms, materials, and assessments remain inaccessible for students who may struggle due to disability, low literacy, language or other expected variabilities, all of which we know exists within our diverse student population. Reversing this trend requires thoughtful consideration by policymakers and state, district, and school leaders to ensure a consistent and purposeful focus is directed toward improving digital access for students.

This document provides evidence-based considerations regarding digital accessibility for students with disabilities, and other underserved populations, that can and should be incorporated across all federal policy impacting access to education.

What is Accessible?

“Accessible” means that learners with disabilities are “afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a learner without a disability in an equally effective and equally integrated manner, with substantially equivalent ease of use.”

– Joint Letter from the US Department of Justice & US Department of Education, June 29, 2010

The Importance of an Accessibility Mindset

The majority of learners with disabilities spend most or all of the school day in general education classes, and are more likely to be independent, fully participate, and make progress in the general education curriculum if the system around them has proactively identified and removed the barriers that commonly permeate the digital materials and technologies used in schools. Therefore, it is imperative that the use of digital materials and technology used across the curriculum and for assessment meet the definition of “accessible.” To that end, we must bring an accessibility mindset to discussions about students with disabilities and education technology. That is, we need to ask — What are the barriers for learners with physical, sensory, and learning disabilities who use assistive technology to access the general education curriculum?

For example, what are the barriers for students who:

- Use alternatives to a keyboard, trackpad, and mouse
- Understand grade-level content but don't decode or comprehend text in typically developing ways
- Access information delivered in audio through transcripts
- Access information delivered in video through captions and/or audio description
- Require language assistance and disability-related services to which they are entitled under federal law.

With proactive planning, digital barriers for students with disabilities can be prevented before they ever enter the education system. As a new National Education Technology Plan (NETP) is developed, accessibility must be included and considered across all domains of effective digital learning in schools. This document highlights some of the key considerations and is aligned with the domains of the 2017 version of the NETP.

Accessibility Considerations for Learning

- Learner agency and independence are fostered when students with and without disabilities have the self-direction to personalize their digital learning experiences to meet their own individual needs and preferences (e.g., adjust device settings for how visual information is displayed; turn captions on/off; customize the behavior of the keyboard or mouse/trackpad; or activate and customize options for text to speech and other accessibility features).
- Students with disabilities and their parents/caregivers are proactively and routinely asked by relevant school staff about the extent to which the digital materials and technologies provided for learning work with their assistive technology.
- School staff responsible for the student work closely with the student and their family to assure all understand and are trained in how the digital materials (classwork, curricula, take-home tests, etc.) work with the required assistive technology.

Accessibility Considerations for Teaching

- Both general education and special education teachers are provided with, and understand how to use, accessible digital materials and technologies across instructional objectives and content areas.
- Both general education and special education teachers have the skills to select and create accessible digital materials.

Accessibility Considerations for Leadership

- Leadership teams for building strong technology systems must include representation from special education administration and assistive technology staff.
- District leadership ensures that all staff and service providers have differentiated training and job-embedded learning opportunities for ensuring that digital educational materials and technologies are accessible to students who use assistive technology and specialized software.

Accessibility Considerations for Assessment

- Use and type of digital accommodations provided to students with disabilities during daily instruction must be allowable for and available during assessments.
- Security measures in assessment must not interfere with the use of digital accessibility features and assistive technology by students with disabilities.

Accessibility Considerations for Infrastructure

- A robust infrastructure includes digital accessibility standards to ensure that users of assistive technology are able to interact with the digital materials and educational technologies selected for teaching and learning.
- Data modernization includes the secure exchange of data specific to the effectiveness of materials and technologies provided and used by students with disabilities (e.g., relevant data from IEPs and 504 plans).

Resources

For more information about inclusive technology practices, visit the following sections of the website of the Center on Inclusive Technology & Education Systems (CITES) at CAST:

- [Learning in Inclusive Technology Systems](#)
- [Teaching in Inclusive Technology Systems](#)
- [Leadership in Inclusive Technology Systems](#)
- [Assessment in Inclusive Technology Systems](#)
- [Infrastructure in Inclusive Technology Systems](#)

For more information about specific practices and areas of compliance for providing accessible digital materials and technologies in education systems, visit the following sections of the website of the National Center on Accessible Educational Materials for Learning (AEM Center) at CAST:

- [Designing for Accessibility](#)
- [Vetting for Accessibility](#)
- [Improving the Accessibility of State-Mandated Assessments: Findings from a Focus Group of SEA Representatives](#)
- [Communicating Digital Accessibility Requirements](#)
- [Providing Accessibility Guidance to Vendors](#)

About CAST

CAST is an award-winning nonprofit education organization that discovers and promotes innovative ways to expand learning opportunities for people of all ages. Founded in 1984, CAST has earned international recognition for pioneering Universal Design for Learning (UDL), a framework to improve teaching and learning. Among our distinguished portfolio, which is focused on our vision to create a world where "learning has no limits," CAST continues to lead the OSEP-funded National Center on Accessible Educational Materials for Learning (AEM Center), where we build the capacity of states, districts, and postsecondary institutions and agencies to create systems for providing timely and high-quality AEM and accessible technologies for learners with disabilities. Additionally,

our OSEP-funded Center on Inclusive Technology & Education Systems (CITES) guides districts in using a framework of evidence-based practices, adapted from the 2017 National Education Technology Plan, to coordinate the implementation of assistive technology (AT) and education technology for students with disabilities.

CAST has been a leader in the field of accessible educational materials since it was awarded the National Center on Accessing the General Curriculum (NCAC) in 1998. CAST led the creation of the NIMAS (National Instructional Materials Accessibility Standards) and the establishment of the NIMAC (National Instructional Materials Access Center) repository of nearly 70,000 textbooks. CAST's current AEM Center is the most recent iteration of a series of eight centers focused on accessible learning materials awarded to CAST since 2005. CAST continues its 20+-year legacy as a leader in the field of educational accessibility, both nationally and internationally.