

Learning Without Barriers

Improving Digital Accessibility in Education



Education Should Work for Every Student

In today's learning environment, the student experience extends far beyond the classroom. The typical day on a modern campus requires engaging with teachers, school, and friends in course portals, online lectures, campus apps, digital signage, training labs, career programs, theaters, sports venues, and mass notification. When these systems are not accessible to everyone, students with sensory and cognitive disabilities can be left out of learning, campus life, important announcements and critical safety information.



According to the NIH, students with hearing loss have lower educational performance and participate less in extracurricular activities

Federal disability laws require equal access to educational opportunities, programs, activities, and services. The latest advancements in audio-visual technology make the campus experience more inclusive and enjoyable for **all** students.

Digital Accessibility & the Future of Inclusive Campuses

Since 2010, the Americans with Disabilities Act (ADA) has required schools to make provisions for the sensory impaired through accessible design. The regulations included things like supporting the hearing impaired with assistive listening devices, linked to facility audio-visual systems, to help make the entire campus accessible by everyone. Even so, most have failed to properly implement these standards due to difficulties with integration, support and management.

Now, beginning in April 2026, updates and enforcement under the ADA will expand accessibility beyond physical infrastructure and into the digital realm.

These emerging standards, known as the Web Content Accessibility Guidelines (WCAG) 2.1 AA, require websites, mobile applications, wayfinding, and digital content, to support people with sensory, cognitive, and mobility disabilities. All aspects of the campus environment are now required to meet the mandates for “effective communications”. **This includes AV and digital content in classrooms, labs, theaters, and athletics venues.** Those who don’t comply risk public lawsuits and fines of up to \$96,000 for a first offense, and up to \$193,000 for each additional offense.

Beyond classroom learning, students with disabilities often face barriers in places many institutions overlook:

- lecture halls where spoken content is difficult to follow
- theaters where scripts, cues, and announcements are not equally accessible
- gymnasiums, sports, and athletics venues where public address systems do not reach every student effectively
- career and technical training programs where simulations, demonstrations, and digital learning tools are not designed for varied access needs
- mass notification information and emergency situations where one mode of communication is not enough



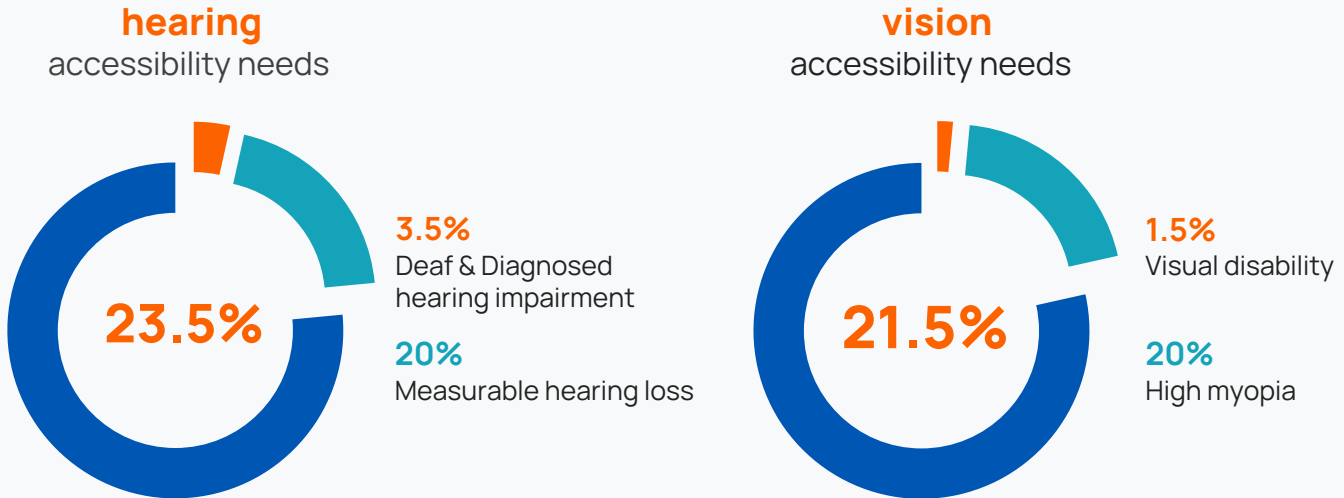
This is an opportunity to expand enrollment, improve the campus experience, and produce more successful students

The Size of the Accessible Student Body

Sensory Disabilities are far more common among students than many schools realize.

According to the National Center for Education Statistics, an ever-growing population of students live with a sensory disabilities. The NCES attributes this surge to causes that include noise-induced hearing damage and myopia due to personal devices.

Sensory Accessibility Needs of U.S. College Students



The Opportunity for Schools to Grow

Accessibility is not just a compliance issue; it is a **significant opportunity for campuses to grow.**

While the NCES cites that more than **20%** of college students have disabilities, only **8%** register the disability with the school. This discrepancy is attributed to schools either lacking technology to help or failing to make students aware of its existence. A 2022 study highlighted that only 6% of top-funded programs received an A for accessibility and inclusion, with 60% receiving a D, often influencing a family's decision to look for more supportive, specialized institutions.

Studies show that nearly 80% of students with disabilities, who are advancing to college, will factor how well the school supports their disability into the selection process

Did You Know...



For the deaf community, **sign language is their primary and most natural language**, while written English is often considered a second language. As a result, relying only on closed captioning does not always provide the same level of clarity or comprehension as sign language interpretation.

Sign languages such as **American Sign Language (ASL)** are visual languages with their own grammar, sentence structure, and cultural context that differ significantly from written English.

When integrated into the school's audio-visual systems, software like **Kara Technologies** can provide near real-time sign language and text translation for classrooms, public address, athletics, and theatrical performances via on screen AI avatars. These avatars can be created to look like campus staff and employees in uniform, performers on stage, or even school mascot characters.

Under ADA rules, places of public accommodation, including schools of all levels, must ensure equal access to services, which includes providing auxiliary aids like listening devices, captioning, and audio description

Assistive Listening Systems improve the Student Experience

Modern accessibility solutions, like **Listen Technologies' ListenWiFi** leverage students' and visitors' own smartphones connected to campus Wi-Fi networks. These systems can deliver ADA support services directly to anyone who needs it in near real time, including:

- Assistive Listening Systems for classrooms, performances, athletics, and announcements
- Closed captions and descriptive video services for visually or hearing-impaired students
- Accessible navigation tools and step-by-step wayfinding



Studies show that providing students with disabilities access to communications dramatically reduces stress and confusion, allowing them to participate more in class and extracurricular activities

Improving Safety and Navigation

Beyond classroom and campus accessibility, digital ADA tools, when integrated into audio-visual, life safety, and wayfinding, can also improve safety and mobility within the school. Smartphone-based accessibility systems can provide:

- Turn-by-turn accessible route navigation
- Campus alerts for students, staff, and visitors with sensory sensitivities
- Emergency alerts in multiple accessible formats
- Clear visual instructions for emergencies like weather, fires, active shooters, and lockdowns





According to the US Census Bureau...

- > 6% of higher ed students are international
- > 9% of students over the age of 5, have limited English ability
- > 24% undergraduate students speak a language other than English at home

A Platform for Multilingual Services

An additional advantage of Wi-Fi-based ADA support systems is that the same infrastructure can deliver multilingual content. Once a platform exists to stream audio, captions, descriptive services, and navigation assistance to mobile devices, it can easily support:

- Near Real-time translation of announcements
- Multilingual captions and subtitles for shows and sports events
- Campus maps and wayfinding in multiple languages
- On screen sign language translation in multiple languages

This capability significantly improves the experience for international and ESL students, a demographic that represents a significant portion of the potential student body.

Creating the Barrier Free Campus

Most schools don't fully understand the compliance requirements and how to best support students with disabilities. This is where we come in. Our team begins by assessing your campus compliance and creating an integration plan to bring your school up to the latest standards. Once a program is designed, we can work with your staff to assist with state and federal grant funding requests.

We design and integrate ADA compliant technology solutions including.

- Audio-Visual Systems
- Wi-Fi Based Assistive Listening
- Sign Language Interpreter Software
- Public Address & Mass Notification Systems
- Closed Caption Support Systems
- Motorized Lift Interactive Displays for height accessibility
- Accessible Wayfinding Displays
- Acoustic Design

We are proud partners of these manufacturers that support people with disabilities...



To remove the Audio-Visual & Digital Accessibility Barriers at your school, contact us...



AV-ation is an Audio-Visual Consultant based just west of DC. Our team members have designed, built, and managed disability support systems for schools, theme parks, museums, planetariums, zoos and international airports around the world.

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Creation Networks is an Audio-Visual Integrator with offices in the SF Bay area, CA, Reno, NV, and Northern, VA. Our team specializes in designing and installing inclusive technology systems across the United States.

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