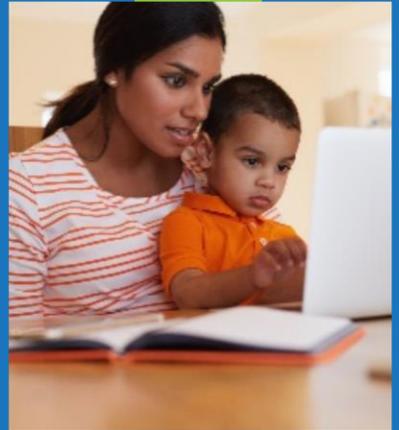# Digital Accessibility Toolkit

What Education Leaders Need to Know

CTD | Center on Technology and Disability

Assistive and Instructional Technology
Supporting Learners With Disabilities

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Digital Accessibility Toolkit

What Education Leaders Need to Know

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American Institutes for Research

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Produced by the Center on Technology and Disability at American Institutes for Research, in partnership with the Consortium for School Networking (CoSN).

About the Center on Technology and Disability

The Center on Technology and Disability (CTD) is a user-centered learning and technical assistance website designed to increase the capacity of families, school systems, technical assistance providers, SEA and LEA leaders, and other key stakeholders to understand, assess, acquire, and implement appropriate assistive and instructional technology strategies and tools. CTD is administered by FHI 360, American Institutes for Research, PACER Center, and Adirondack Accessibility.

www.ctdinstitute.org

About American Institutes for Research

American Institutes for Research (AIR), in partnership with FHI360 on CTD, provides technical assistance to state and district leaders to support their efforts to integrate assistive and instructional technology strategies and tools. This work builds upon AIR's extensive experience with the integration of technology in teaching and learning to enhance education for all students.

www.air.org

About the Consortium for School Networking

The Consortium for School Networking (CoSN) is the premier professional association for district technology leaders. For over two decades, CoSN has provided leaders with the management, community building, and advocacy tools they need to succeed. Today, CoSN represents over 10 million students in school districts nationwide and continues to grow as a powerful and influential voice in K–12 education.

www.cosn.org

Contents

Introduction

The Center on Technology and Disability (CTD) and the Consortium on School Networking (CoSN) are pleased to present *Digital Accessibility Toolkit: What Education Leaders Need to Know.*

Accessibility is essential for leveraging technology and providing educational opportunities for all students, including those with disabilities and English learners (ELs). School systems need to ensure all information provided to the public, parents, and guardians is accessible. Research shows two key factors in a student's educational success are the availability of accessible content and materials and parental engagement. Parental involvement is possible only if parents can access and understand information from teachers and principals about their child. Unfortunately, many state and district leaders become aware of the importance of accessibility only when faced with legal action.

The toolkit offers resources, tips, and information for state and district leaders that can provide guidance on how to ensure accessibility is part of the educational equation. The goal is to support leaders in being proactive instead of reactive.

Issues of accessibility will continue to be in the forefront for education leaders, chief technology officers, and other educators as they seek to close the digital divide and increase educational equity for all students.

We hope you find this toolkit and its supplementary infographics useful in supporting all learners!

Donna Williamson, Technology Director, Mountain Brook City Board of Education (AL)

"This toolkit will help frame conversations with central office staff and school administrators to develop a plan to ensure that all parents have access to the information we post on our website and in our parent portal."

What Is Accessibility?

Accessibility is a critical key to leverage the power of technology and provide equal educational opportunity for all students, particularly those with disabilities. This concept involves the design of materials (e.g., curricula and resources), devices (e.g., smart phones and tablets), digital tools (e.g., computers, apps, and games), and platforms (e.g., online learning and websites) that support access to educational content and activities. Further, accessibility refers to accommodating individual cognitive and physical needs to remove unnecessary obstacles so that students can demonstrate their knowledge and skills in formative and summative assessments.

This concept of accessibility of digital and web content applies not only to students with disabilities, but also to ELs and those from under-resourced communities. Technological tools can make accessibility possible with embedded supports such as audio and digital text formats of instructional materials and strategies that differentiate and personalize instruction to meet the needs of the learner. These embedded supports must consider the range of variation among learners in their ability to navigate, perceive, understand, and interact with educational content, activities, and services. Further, accessibility features need to be designed with recognition of the wide range of student disabilities that may have an impact on learning, including physical, visual, auditory, cognitive, and neurological disabilities.

There is a growing awareness that the supports necessary to ensure accessible learning can be built into the hardware and software at the inception of the development process. This approach is referred to as "born accessible" or universal design for learning (UDL). Based on the architectural concept of universal or inclusive design, UDL has gained prominence in the education community because it seeks to level the playing field for all students with three key principles to enhance teaching and learning that provide multiple means of:

1. **Representation so that students can approach information in more than one way.** This includes digital books, specialized websites, hardware, software, and screen readers that may feature text-to-speech, availability of different reading levels, changeable color contrast, alterable text size, or a combination.

Terry Locke, Director of Community Relations, Chandler Unified School District (AZ)

"While most educators and staff innately desire to serve and communicate effectively with our public, they would be horrified to learn they have discriminated against the disabled and may not recognize that a problem exists or how to address it. Our goal is to reach everyone responsible for our online and electronic communication, in the most straight-forward and understandable way, explaining how to include those with vision or hearing impairment, cognitive or physical disabilities and why it matters."

2. **Expression so that all students can demonstrate and express what they know.** This includes options in how students express their learning, when appropriate, such as writing, videos, speech-to-text programs, and online concept mapping.

3. **Engagement to stimulate interest in and motivation for learning.** This includes offering students the option across different learning activities or content for a particular competency or skill and providing opportunities for greater collaboration or scaffolding.

Digital learning tools coupled with UDL principles provide opportunities for customization and personalized learning for all students because they allow for more flexibility than traditional learning formats. A tailored learning experience creates more student engagement and achievement.[1] With the continued emergence of innovative technologies, it is now easier than ever for content creators and program developers to reflect these UDL principles. For example, user-friendly tools are available to develop or enhance content so that it is accessible to the broadest range of users:

• Captions for videos

• Alt-text (that is, an inserted word or phrase to describe an image) on websites and in e-books

• Standard headers in websites, forms, e-books, and documents

• Adjustment of text colors and background contrasts

• Text-to-speech, speech-to-text, dictionaries, and glossaries

As more educational content, activities, and services are made available in digital formats and delivered online, the issues of accessibility will continue to be in the forefront for educators as they seek to close the digital divide and ensure educational equity for all students.

What About Accessibility in Online Learning Environments?

As technology changes the ways in which students engage with educational materials and the settings in which they learn, our understanding of what represents a free appropriate public education (FAPE) in the least restrictive environment (LRE) also will shift. LRE in a physical classroom or space may look very different from LRE in a virtual or blended learning environment, with various accessibility needs. An online learning environment could be inclusive as a result of a wide variety of accessible content and built-in supports or exclusive (and denying the student a FAPE in the LRE) because key learning resources have not been made fully accessible. Although the perception is growing that the use of technology to support instruction can improve student experiences and learning outcomes, digital or online content alone is not sufficient to meet the accessibility needs of all students with disabilities, and many digital learning resources may in fact be difficult or impossible for students with disabilities to access (e.g., videos, animations, documents) without adding accessibility features. It is critical that accessibility and the needs of students with disabilities be factored into planning and development of online learning environments.

Learn more at the Center on Online Learning for Students with Disabilities:
http://centerononlinelearning.org/

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[1] Office of Educational Technology, U.S. Department of Education. (2017). *Reimagining the role of technology in education: 2017 National Education Technology Plan Update.* Washington, DC: U.S. Department of Education. Retrieved from https://tech.ed.gov/netp/

Digital Accessibility Toolkit: What Education Leaders Need to Know

3.

Additional Resources

Accessibility Tools and Resources: Getting Started with Accessibility
http://www.ctdinstitute.org/library/2016-10-20/accessibility-tools-and-resources-getting-started-accessibility

Born Accessible Learning Resources
http://www.ctdinstitute.org/sites/default/files/file_attachments/Born_Accessible_QuickGui de_508_0.pdf

CAST: Professional Learning
http://www.cast.org/our-work/professional-learning#.V6iMGfkrKUk

CAST: UDL at a Glance (video) https://youtu.be/bDvKnY0g6e4

Center on Technology and Disability: Accessibility Resource Collection (Infographics, Webinars, Quick Guides)
http://www.ctdinstitute.org/library/2017-02-07/accessibility-resource-collection

Evolution of Federal Disability Legislation 1973–2016 (Infographic)
http://www.ctdinstitute.org/library/2016-08-19/evolution-federal-disability-legislation-1973- 2016

Future Ready Assistive Technology: Fostering State Supports for Students With Disabilities
http://www.ctdinstitute.org/library/2016-01-14/future-ready-assistive-technology-fostering- state-supports-students-disabilities

Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update https://tech.ed.gov/netp/

State Perspective: How Utah is Strengthening Its Infrastructure to Support Accessible Materials (Webinar and Supplementary Materials)
http://www.ctdinstitute.org/cafe/2017-05-23/state-perspective-how-utah-strengthening-its-infrastructure-support-accessible

State Spotlight: Utah
http://www.ctdinstitute.org/library/2017-05-01/state-spotlight-utah

Students with Disabilities Learning Online: Vulnerable Students in a Rapidly Evolving and Unstable Environment
http://ctdinstitute.org/library/2015-04-27/students-disabilities-learning-online-vulnerable- students-rapidly-evolving%0B-and

UDL and Born Accessible Learning Resources: What State Leaders Need to Know (Webinar)
http://www.ctdinstitute.org/library/2016-03-30/udl-and-born-accessible-learning-resources- what-state-leaders-need-know

Understanding Accessibility: Policy and Implications for State Leaders (Webinar) http://www.ctdinstitute.org/library/2016-08-18/understanding-accessibility-policy-and- implications-state-leaders

Understanding Assistive Technology: Policy and Implications for State Leaders (Webinar) http://www.ctdinstitute.org/library/2016-08-18/understanding-assistive-technology-policy- and-implications-state-leaders

Understanding the Basics of Assistive Technology (Infographic) http://www.ctdinstitute.org/library/2016-08-19/understanding-basics-assistive-technology

Why You Need to Care About Accessibility (Infographic) http://www.ctdinstitute.org/library/2016-08-19/why-you-need-care-about-accessibility

Procuring Accessible Technology

"States, districts, and post-secondary institutions should develop and implement learning resources that embody the flexibility and power of technology to create equitable and accessible learning ecosystems that make learning possible everywhere and all the time for all students. Whether creating learning resources internally, drawing on collaborative networks, or using traditional procurement procedures, institutions should insist on the use of resources and the design of learning experiences that use UD practices to ensure accessibility and increased equity of learning opportunities".[2]

What Are Accessible Technologies?

Accessibility ensures both equal access and equal opportunity for your audience, whether students, parents, educators, or other stakeholders. Equal access and opportunity to content, programs, resources, and learning platforms is a legal obligation, but also it ensures that your content is usable by all. Accessible technologies might include:

- **Websites**

- **Online learning portals and platforms**

- **Videos posted online**

- **Digital textbooks and e-book readers**

- **Student or parent portals for scheduling, billing, or notifications**

Accessible technologies are those that people with disabilities can navigate, perceive, understand, and interact with and designers must consider physical, visual, speech, auditory, neurological, and cognitive disabilities.

Why Purchase Accessible Technologies?

Beyond the legal requirement to provide accessible content, learning materials that are inaccessible are limited in their ability to support diverse learning needs and students with disabilities, often requiring costly accommodations. Beginning with materials that are accessible saves staff the time and money of trying to retrofit inaccessible content to meet student needs and obey the law. For example, a student with a vision

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[2] Office of Educational Technology, U.S. Department of Education. (2017). *Reimagining the role of technology in education: 2017 National Education Technology Plan Update.* Washington, DC: U.S. Department of Education. Retrieved from https://tech.ed.gov/netp/

impairment who is taking an online course in an inaccessible platform would need to wait for an aide or support staff to read the content instead of being able to access materials independently. The cost and time involved in finding someone to support the student could have been saved using an online learning platform that was accessible from the start. Finally, accessibility features offer benefits to all your users—the ability to magnify text, hear text read aloud, turn captions on, and change settings are features that make digital content more user-friendly and improve the learning experience for all students.

What Can State and District Leaders Do?

Although advances in technology have created many new opportunities for students with disabilities, not all digital content is accessible. Purchased and teacher- or district-created content must be carefully reviewed and evaluated to ensure that it is not creating barriers for users with disabilities. State and local education leaders need to shift toward being proactive about accessibility, not reactive when problems arise. Being proactive begins with making accessible technology and resources an institution-wide priority and creating systems for addressing accessibility issues, including the purchasing and acquisition process for new technologies. Key steps to consider include the following:

- Research accessibility legislation and ensure that all staff understand their legal responsibility to provide accessible learning materials and resources.

- Let developers and publishers know that you expect digital textbooks, resources, and learning materials to be built according to industry accessibility standards and ensure that this language is included in all vendor contracts.

- Make reviewing for accessibility an integral part of your purchasing and procurement of new technologies.

- Build staff capacity around accessibility features and considerations when selecting or developing content.

- Set an institution-wide expectation that accessibility is mandatory and is everyone's responsibility.

Additional Resources

Accessibility Contract Language FAQs (State of Massachusetts)
http://www.mass.gov/anf/research-and-tech/policies-legal-and-technical- guidance/legal-guidance/procurement-forms-and-boiler-plate-lang/accessibility-for-it- solutions-contract-language.html

Accessibility is More Than a Checklist
http://www.ctdinstitute.org/library/2017-01-06/accessibility-more-checklist

The Accessibility of Learning Content for All Students, Including Students With Disabilities, Must Be Addressed in the Shift to Digital Instructional Materials (SETDA Policy Brief)
http://www.setda.org/wp-content/uploads/2014/03/SETDA_PolicyBrief_Accessibility_FNL.5.29.pdf

Accessibility Standards, Specifications and Guidelines
http://aem.cast.org/creating/accessibility-standards-specifications-guidelines.html#.Vs3st_krLIU

Buy Accessible: What to Look For in Ebooks
http://benetech.org/our-programs/literacy/born-accessible/accessible-ebooks-what-to- look-for/

Getting Started with Accessibility (Infographic)
http://www.ctdinstitute.org/library/2016-10-11/getting-started-accessibility

A Guide to Accessible Purchasing (Temple University)
https://accessibility.temple.edu/guide-accessible-purchasing

Making Content Accessible for All Students
http://www.ctdinstitute.org/library/2017-01-25/making-content-accessible-all-students

The PALM Initiative
http://aem.cast.org/navigating/palm.html

Procuring Accessible IT (University of Washington)
http://www.washington.edu/accessibility/procurement/

Quality Indicators for the Provision of AEM
http://aem.cast.org/policies/quality-indicators-provision-aem.html#.WUvF9OvyuUm

To Care and Comply: Accessibility of Online Course Content
https://www.youtube.com/watch?v=eks3r-nE9lU

Your Role in Ensuring Accessibility (Infographic)
http://www.ctdinstitute.org/library/2016-10-11/5-things-know-about-your-role-ensuring-accessibility

Benefits of Digital Accessibility

"The Web is increasingly an essential resource for many aspects of life: education, employment, government, commerce, health care, recreation, social interaction, and more."[3] Ensuring that these web-based services and resources are inclusive to all users, including those with disabilities, is critical and required under federal and state law, and highlighted in Article 9 of the United Nations Convention on the Rights of Persons with Disabilities (see section on Legal Requirements for Digital Accessibility).[4] Accessible web-based functionality, however, extends beyond compliance to include benefits, such as improvement in student learning, improvement in user experience, greater search engine optimization (SEO), and direct cost savings.

Improves Student Learning

Though accessibility is both a state and federal legal obligation, it also is a moral and ethical obligation that goes to the heart of an educator's mission to support learning for all their students. Inaccessible learning materials put up unnecessary roadblocks for your students on their path to deeper understanding and content knowledge. Inaccessible content is of limited usefulness for students with disabilities, and the time spent by them (and support staff) finding solutions, asking for help, and requesting accessible materials is time not spent on learning. Accessibility features can help place your students with disabilities on an equal footing with their peers and focus their energies on learning, creating, and engaging with high-quality content. Designing for accessibility isn't just about compliance, you're also empowering your students to succeed.

Improves User Experience

In addition to supporting people with disabilities, accessibility features on smart mobile devices, tablets, and computers help all people every day. These features improve our ability to search, retrieve, and engage with content. Here are some examples of accessible features that we use every day at school, work, and home:

- **Dictation (e.g., speech-to-text, or virtual personal assistants)**
- **Font size and style adjustments**

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[3] Henry, S. L., & Arch, A., eds. (2012). *Developing a web accessibility business case for your organization.* Cambridge, MA: W3C. Retrieved from https://www.w3.org/WAI/bcase/Overview.html

[4] United Nations Convention on the Rights of Persons With Disabilities. (2008). New York, NY: United Nations. Retrieved from http://www.ohchr.org/Documents/Publications/AdvocacyTool_en.pdf

- **Speech screens**
- **Touch screens and touch accommodations**
- **Zoom and magnification**
- **Visual and vibrating alerts and notifications**
- **Voice control and voice input**

Accessible features, like the examples just listed, benefit everyone by improving the user experience. Because the web provides a fast, easy, and efficient platform to share and collect information, learn, connect people, and provide work opportunities, accessible websites are crucial. Accessibility features (for example, alternative text, font style and color, captions, contrast between background and foreground colors, mobile compatibility) on a website improve the user experience by:[5]

- **Reducing barriers to use.** Including alternative text to describe images and graphics, and developing a site that does not require the use of a mouse, greatly improves usability and accessibility.

- **Ensuring mobile device compatibility.** For many users, a mobile phone is the primary device used to access information from the web.

- **Improving access for older people.** Older people may find it difficult to view content on webpages, navigate a mouse, or hear audio from a video or podcast. Many of the accessibility features that enhance the web experience for people with disabilities would also improve the user experience for older users.

Let's consider another accessible feature: **captioning** (or subtitles), which was intended to support people with hearing disabilities, but enhances the user experience for all users. Captioning offers convenient, educational, and functional benefits. Here are examples of how captioning improves the user experience for all users:
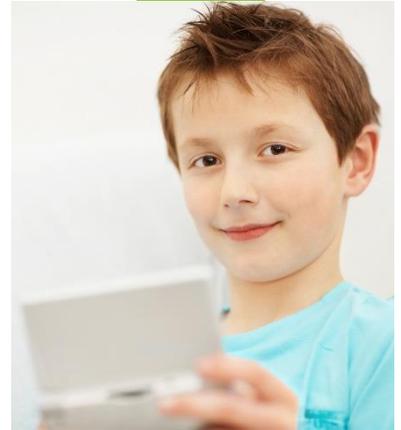
Steve Langford, Chief Information Officer, Beaverton School District (OR)

"We must provide materials, tools, and content that supports all student learners. While there are many benefits of designing with accessibility, one of the most compelling reasons is the potential instructional impact on the learning for all students."

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[5] Henry, S. L., & Arch, A., eds. (2012). *Developing a web accessibility business case for your organization.* Cambridge, MA: W3C. Retrieved from https://www.w3.org/WAI/bcase/Overview.html

- **Communicates content in settings where sound is unavailable.** Captions enable the user to comprehend what is happening in a noisy environment, or if the audio is too low or unavailable.

- **Improves literacy for struggling readers or English learners (ELs).** Captions promote comprehension and language development for struggling readers or ELs by reading the words on the screen and hearing the words spoken aloud.

- **Increases engagement with content.** Captions help increase focus and retention of information.

- **Supports understanding if speaker or audio is difficult to understand.** Captions clearly show what is being communicated by a speaker who speaks fast, with an accent, or is challenging to understand.

Expands Website Visibility

"Web accessibility can make it easier for people to find a website, access it, and use it successfully, thus resulting in increased audience (more users) and increased effectiveness (more use)".[6] Here are some benefits of accessibility features on websites:

- **Increases potential use by more people.** Accessible websites can be used by more people, including people with disabilities, people using mobile devices, people not fluent in the language of the website, older and younger people, people with older technology devices, and those with low bandwidth Internet connections.

- **Increases findability with SEO.** Search engines are able to identify content within a website and across the web when accessibility features are used. For example, including alternative text to describe graphics and images and incorporating headings, increase website content exposure to search engines.

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[6] Henry, S. L., & Arch, A., eds. (2012). *Developing a web accessibility business case for your organization*. Cambridge, MA: W3C. Retrieved from https://www.w3.org/WAI/bcase/Overview.html

- **Increases usability and return visits to website.** In general, accessible websites are more functional for all users. For instance, by incorporating simple language and supplemental illustrations with clear and consistent design and navigation features, users are able to easily and efficiently search for content and navigate the site. Positive experiences typically produce return visits.

- **Increases potential use in more situations.** As exemplified with the use of captions in the previous section, a website featuring accessible functionality can be accessed in more situations: noisy and quiet environments, and places with low bandwidth.

Saves Valuable Time and Money

Finally, by choosing to incorporate accessible features from the beginning, institutions may benefit by avoiding costly and time-consuming:

- **Compliance lawsuits.** Accessibility is the law; ensuring websites are accessible reduces the danger of paying legal costs for not complying with Web accessibility requirements.

- **Replacement and retrofitted devices.** Purchase technology devices with design and accessibility features in mind.

- **Website redesign.** If necessary, spend more money up front to ensure accessibility.

- **Unnecessary accommodations.** Staff time spent providing an accommodation to meet user needs.

Additionally, some strategies to reduce accessibility implementation costs, include:

- **Incorporating accessibility from the start.** Educate yourself, or hire an expert, on website accessibility so you are prepared to make informed decisions and properly train your team.

- **Sharing accessibility resources.** Many costs related to ensuring Web accessibility are made at an organization level, rather than at a project level. Share initial costs among multiple projects, instead of repeating for multiple projects.

- **Addressing accessibility and mobile devices concurrently.** Be mindful of users accessing content through mobile devices. Develop websites for desktop and laptop computers and mobile devices simultaneously, instead of one at a time.

Vanessa Robinson, Student, Portland Community College (OR)

Vanessa, a student with a hearing disability, depends on captions to understand video content. Without captions, she must digest the content by aligning a transcript (if available) of the audio with the video, arranging time to consult with an interpreter, working with her instructor to find a comparable video, or completing a different assignment than her classmates, greatly impeding her ability to learn independently. Captions, provide Vanessa with a simple solution.

This brief video, produced by Portland Community College (OR), describes the impact of accessible features for three students with disabilities: https://youtu.be/eks3r-nE9lU

Additional Resources

AEM for SEAs and LEAs
http://aem.cast.org/about/quick-start-state-local-education-agencies.html#what-are-aem

Developing a Web Accessibility Business Case for Your Organization
https://www.w3.org/WAI/bcase/Overview.html

Everything You Need to Transcribe Videos and Create Closed Captions In-House
http://www.3playmedia.com/2015/07/06/everything-you-need-to-know-to-transcribe- video-create-closed-captions/

Financial Factors in Developing a Web Accessibility Business Case for Your Organization
https://www.w3.org/WAI/bcase/fin

How Does Accessible Web Design Benefit All Web Users?
http://www.washington.edu/doit/how-does-accessible-web-design-benefit-all-web-users

Reap SEO Bonuses by Making Your Website Accessible
http://siteimprove.com/blog/overlaps-between-seo-and-web-accessibility/

7 Ways Video Transcripts and Captions Improve SEO
http://www.3playmedia.com/2016/06/14/7-ways-video-transcripts-captions-improve-seo/

Simply Said: Understanding Accessibility in Digital Learning Materials
https://www.youtube.com/watch?v=HzE5dj1WTSo

What Are AEM?
http://aem.cast.org/about/what-are-aem-accessible-technologies.html#.WUvIv-vyuUl

Web Accessibility and SEO
http://webaim.org/blog/web-accessibility-and-seo/

Legal Requirements for Digital Accessibility

Technology tools have become deeply entwined in the ways that we learn, work, communicate, play, and shop. We encourage students to learn online with courses, videos, and other interactive materials and devices; we use school or university websites to communicate with students and parents; we use online portals for scheduling classes and teacher conferences or paying tuition bills. But when these resources are inaccessible to students, teachers, parents, or others with disabilities, they are digitally excluding large sections of your users and opening up your institution to complaints and legal challenges.

The U.S. Department of Education, Office of Civil Rights has spent considerable time working with institutions of higher education to address website accessibility issues, and is now beginning to intensify that work with K–12 schools and districts (http://legalnewsline.com/stories/510738182-department-of-education-increases-investigations-into-website-compliance-with-ada). With more of our learning and interactions occurring online, digital accessibility is a major concern for educators and educational institutions. Now is the time to address website accessibility issues.

What is the Legal Framework for Digital Accessibility?

Although the laws related to individuals with disabilities did not explicitly address accessibility issues, such as the Rehabilitation Act (1973), and the Americans with Disabilities Act of 1990, as amended (2008), case law and guidance from the U.S. Department of Justice and the U.S Department of Education indicate that websites and website content fall under the umbrella of existing nondiscrimination laws.

This interpretation of existing civil rights and disability legislation was solidified in two Statements of Interest filed by the U.S. Department of Justice (DOJ) in recent cases brought by the National Association for the Deaf against Harvard (https:/www.ada.gov/briefs/harvard_soi.pdf) and MIT (https://www.ada.gov/briefs/mit_soi.pdf). Both universities argued that captioning of videos was not required by existing law, and that in the absence of clear federal guidelines, web accessibility lawsuits should be delayed until revisions could be made. In the response to this argument,
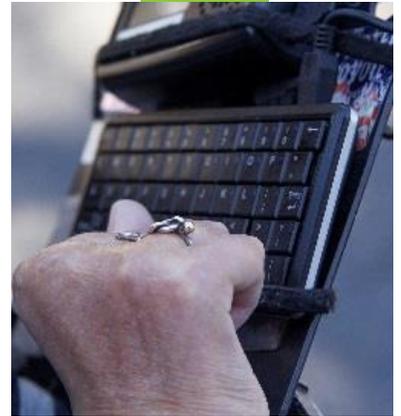
the DOJ rejected these claims, and reiterated that the Americans with Disabilities Act (ADA) was explicitly written to keep pace with developing technology, and that website accessibility was mandatory even in the absence of updated and more concrete guidelines.

In the 2010 joint Dear Colleague Letter on e-book readers, guidance on emerging technologies similarly underscored the importance of compliance with disability laws, stating, *"It is unacceptable for universities to use emerging technology without insisting that this technology be accessible to all students"*.[8] In a follow-up FAQ document, the DOJ and ED clarified that this ruling applied to both K–12 and higher education and went beyond accessibility of e-book readers.[9]

Within this context, educators at all levels need to be familiar with and understand federal and state-level accessibility laws, including Sections 504 and 508 of the Rehabilitation Act; ADA; and the Individuals with Disabilities Education Improvement Act (IDEIA). In addition, many states have their own accessibility laws and guidelines (sometimes referred to as "little 508s") that may go further than existing federal law. Taken together, these laws ensure that individuals with disabilities have equal access to all programs, services, and activities, including web-based and digital communications.

In January 2017, the Access Board released updated requirements for information and communication technologies covered by Section 508 of the Rehabilitation Act.[10] These new requirements align U.S. standards with international standards for accessibility, and address new and developing technologies to provide greater clarity when addressing digital accessibility.

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[7] Henry, S. L., & Arch, A., eds. (2009). *How WCAG 2.0 differs from WCAG 1.0.* Cambridge, MA: W3C. Status: Updated 15 January 2009. Retrieved from: https://www.w3.org/WAI/WCAG20/from10/diff.php

[8] U.S. Department of Justice, Civil Rights Division, & U.S. Department of Education, Office of Civil Rights. (2010). *Joint "dear colleague" letter: Electronic book readers.* Retrieved from https://www2.ed.gov/about/offices/list/ocr/letters/colleague-20100629.html

[9] U.S. Department of Justice, Civil Rights Division, & U.S. Department of Education, Office of Civil Rights. (2011). *Frequently Asked Questions About the June 29, 2010, Dear Colleague Letter.* Retrieved from https://www2.ed.gov/about/offices/list/ocr/docs/dcl-ebook-faq-201105.pdf

[10] United States Access Board. (2017). *Information and Communication Technology (ICT) Final Standards and Guidelines.* Retrieved from https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule

How Can We Get to Compliance?

Your role as an educational leader is critical for creating an environment where accessibility is a priority. Ensuring compliance with federal and state accessibility laws, and protecting equal access for people with disabilities is a system wide (e.g., school, district, institution) responsibility. Your commitment, vision, and leadership are essential. Accessibility considerations should be a regular part of planning, not just considered when problems arise or when users request accommodations. Being proactive instead of reactive saves time and money and ensures that anyone using your website is able to perceive, understand, and navigate your content.

If your institution does not have an accessibility policy clearly communicated on your website, and guidelines for all staff, developing and communicating one should be your first priority. Here are steps your team can take to bring your website content into compliance:

1. Research and understand federal and applicable state accessibility laws and guidelines.

2. Review accessibility policies at other institutions.

3. Use checklists and guides such as the WCAG 2.0 checklist to perform an accessibility audit of your website, instructional materials, and digital content to ensure that all of your materials are in compliance with federal laws.

4. Identify materials that are not compliant and develop a plan to address accessibility issues.

5. Set goals and benchmarks for addressing compliance issues with timelines for success.

6. Work together to create an institution-wide system for addressing accessibility involving educators, community members, students, administrators, disability and accessibility organizations, content creators, and web developers.

7. Develop and communicate your institution-wide vision for accessibility and the importance of compliance with accessibility laws. If your institution does not already clearly communicate an accessibility policy on your website, doing so should become a priority (see Resources section for examples).

8. Conduct regular accessibility audits of technology and solicit feedback from students and stakeholders.

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[11] (2017). *How to Meet WCAG 2.0.* Cambridge, MA: W3C. Status: Updated 20 July 2017. Retrieved from: https://www.w3.org/WAI/WCAG20/quickref/#meaning

Understanding the Four Principles of Accessibility[11]

Perceivable

- *Provide **text alternatives** for non-text content.*

- *Provide **alternatives for time based** media.*

- *Create content that can be **presented in different ways**, including by assistive technologies, without losing meaning.*

- *Make it easier for users to **see and hear content**.*

Operable

- *Make all functionality available from a **keyboard**.*

- *Give users **enough time** to read and use content.*

- *Do not design content that causes **seizures**.*

- *Help users **navigate and find content**.*

Understandable

- *Make text **readable and understandable**.*

- *Make content appear and operate in **predictable** ways.*

- *Help users **avoid and correct mistakes**.*

Robust

- *Maximize **compatibility** with current and future user tools*

Learn more at WC3: https://www.w3.org/WAI/WCAG20/quickref/

Resources on Accessibility Laws and Guidelines

Accessibility, Assessment, and the Law: What State Leaders Need to Know (Webinar) http://www.ctdinstitute.org/library/2016-10-24/accessibility-assessment-and-law-what-state-leaders-need-know

Accessibility Standards, Specifications and Guidelines http://aem.cast.org/creating/accessibility-standards-specifications-guidelines.html#.Vs3st_krLIU

At a Glance: Which Laws Do What https://www.understood.org/en/school-learning/your-childs-rights/basics-about-childs- rights/at-a-glance-which-laws-do-what

The Big Difference: Disability Rights and Responsibilities in High School vs. College https://csbsju.edu/Documents/Disability%20Services/Difference%20between%20HS%20and%20College.pdf

A Comparison of ADA, IDEA, and Section 504 https://dredf.org/advocacy/comparison.html

Differences between High School and College Accommodations for Students with Disabilities http://www.tsc.edu/images/Departments/disability_services/Differences_Between_HS_and_College_for_Students_with_Disabilities.pdf

Digital Accessibility and Compliance: Building LEA Capacity (Webinar) http://www.ctdinstitute.org/library/2016-10-20/accessibility-tools-and-resources-getting-started-accessibility

Frequently Asked Questions About the June 29, 2010, Dear Colleague Letter http://www2.ed.gov/about/offices/list/ocr/docs/dcl-ebook-faq-201105.pdf

Learn About Section 508 Requirements and Responsibilities https://www.section508.gov/content/learn

A New Look at Section 504 and the ADA in Special Education Cases http://apps.americanbar.org/litigation/committees/childrights/content/articles/summer20 11-section-504-ada-idea.html

Sections 508 and 504: Closed Captioning and Web Accessibility Requirements http://info.3playmedia.com/wp-section-508.html

2017 Federal and State Accessibility Guidelines and Laws for Education https://cielo24.com/2016-accessibility-guidelines-res/

United States Access Board https://www.access-board.gov/

Resources for Conducting Accessibility Audits

Accessibility Testing Tools
https://www.paciellogroup.com/resources/

How to Conduct a Basic Accessibility Audit on Your Site
http://blogs.adobe.com/dreamweaver/2016/05/how-to-conduct-a-basic-accessibility-audit-on-your-site.html

How to Meet WCAG 2.0
https://www.w3.org/WAI/WCAG20/quickref/

IT Accessibility Risk Statements and Evidence
https://library.educause.edu/resources/2015/7/it-accessibility-risk-statements-and- evidence

10 Tips for Creating Accessible Course Content
http://www.3playmedia.com/2015/10/21/10-tips-for-creating-accessible-course-content/

WCAG 2.0 Guidelines (Pennsylvania State University)
http://accessibility.psu.edu/wcag2/

WebAIM's WCAG 2.0 Checklist
http://webaim.org/standards/wcag/checklist

Web Accessibility Evaluation Tools List
https://www.w3.org/WAI/ER/tools/

Examples from Schools, Universities, and Education Agencies

Accessibility Statement (Communities in Schools of Washington)
http://ciswa.org/accessibility-statement/

Accessible Educational Resources Portal (Seattle Public Schools)
http://www.seattleschools.org/cms/One.aspx?portalId=627&pageId=8660017

Accessible Technology at the UW
http://www.washington.edu/accessibility/

Policy AD69—Accessibility of Electronic and Information Technology
http://guru.psu.edu/policies/AD69.html

Web Accessibility Statement (Cambridge Public Schools)
http://www.cpsd.us/web_accessibility_statement

Web and Technology Accessibility FAQ (Seattle Public Schools)
https://www.seattleschools.org/cms/one.aspx?pageId=7183920