ONLINE LEARNING CONSORTIUM

OLC RESEARCH CENTER FOR DIGITAL LEARNING & LEADERSHIP

Access and Accessibility in Online Learning

Issues in Higher Education and K-12 Contexts

From **OLC Outlook: An Environmental Scan of the Digital Learning Landscape**

June 2018

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Introduction

Accessibility in K-12 and higher education is becoming an increasingly complex terrain to traverse as schools increase online materials and instructional delivery options. This white paper provides an overview of critical terms, legal precedents, and other considerations for course designers, instructors, and administrators as they work to improve the educational experiences of learners with disabilities.

Key questions around accessibility include the following:

1. How do national laws that govern disability access apply to online courses?
2. What case law exists to guide online course design and delivery in various educational settings?
3. What issues emerge regarding online course access that might be unique to higher education and to K-12 settings? What issues are shared?
4. What support do online course designers need in order to generate accessible courses for learners across the life span (from K-12 to higher education)?

The first section of this white paper provides definitions for concepts related to accessibility in digital educational environments. Second, accessibility in online course design from both practical and policy perspectives are elaborated for both higher education and K-12 education. Helpful references and resources -- including active online communities of practice -- are provided at the end of the document.

Definitions

Accessible Technology: Accessible technology includes a broad range of constantly changing tools and features that support the learning of students with disabilities. Common examples include:

- **Screen readers:** applications that read digital text to users, provided that the document being read is tagged appropriately and is readable by this application.
    - *Use case:* a visually impaired student uses a screen reader to read a PDF document aloud. A student can also use the application to navigate around sections of the document by using keyboard shortcuts.
- **Alt text:** attributes attached to images that provide brief descriptions of images, tables, and other graphics.
    - *Use Case:* a low-vision student uses a screen reader for an HTML web page and the image's alt text field is read aloud as a way to learn what is in the image.
- **Captions:** scrolling text available on the bottom edge of a video frame that accurately capture diegetic (natural what is happening on screen) and non-diegetic (off the screen, inorganic) auditory dimensions of the video, including silences, descriptions of dialect when necessary, and descriptions of music.
    - *Use Case:* a deaf or hearing-impaired student uses captions to read a professor's lecture in a recorded video.

ADA and ADAAA: The Americans with Disabilities Act (ADA) is a civil rights law that "prohibits discrimination against individuals with disabilities in all areas of public life, including

jobs, schools, transportation, and all areas of public and private areas that are open to the general public" (ADA National Network, n.d.). Any institution receiving federal funding must comply to ADA requirements. The ADA was signed into law in 1990; in 2008, the American Disabilities Act Amendments Act (ADAAA) clarified the definition of "disability" (U.S. Equal Employment Opportunity Commission, n.d.). Students in both higher education settings and K-12 settings are protected by this law.

Section 508 of the Rehabilitation Act of 1973: Section 508 mandates that "all electronic and information technology used by the federal government be accessible to people with disabilities." However, broader interpretations of this law have occurred over time such that colleges and universities that receive any form of federal funding must also meet minimum standards for accessibility outlined by Section 508 as well (LaGrow, 2017). Section 508 requirements are often compared to the Web Content Accessibility Guidelines 2.0, or WCAG 2.0, which outline three levels of compliance: Level A, which is the minimum; Level AA, which is often used by institutions worldwide as their internally mandated minimum and includes conformance to Level A requirements; and Level AAA, which is the highest level and includes conformance to Level A and Level AA requirements (Essential Accessibility, 2017; W3C Working Group, 2018). Students in both higher education settings and K-12 settings are protected by this law.

Section 504 of the Rehabilitation Act of 1973: Section 504 protects students with disabilities against discrimination in all educational programs that receive funding from the U.S. Department

of Education. It states: “No otherwise qualified individual with a disability in the United States… shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance...." (U.S. Department of Education Office of Civil Rights, n.d.). Section 504 is enforced by the Office of Civil Rights, which is a unit of the Department of Education. Students in both higher education settings and K-12 settings are protected by this law.

Title II: Title II focuses on protecting individuals with disabilities against discrimination in services, programs, and activities that are provided by state or local government, including public schools. This measure “extends the prohibition on discrimination established by Section 504 of the Rehabilitation Act of 1973… to all activities of State and local governments regardless of whether these entities receive financial assistance” (United States Department of Justice Civil Rights Division, n.d.). Title II is also enforced by the Office of Civil Rights within the Department of Education. Students in both higher education settings and K-12 settings are protected by this law.

IDEA: The Individuals with Disabilities Education Act (IDEA, 2004) provides free and public K-12 education (FAPE) to students with disabilities and supports special education services in the least restrictive environment (LRE) possible. State and public agencies are responsible for administering IDEA within certain guidelines, and for disbursing funding for special education programs (U.S. Department of Education, n.d.). There are six core principles in IDEA: FAPE, LRE, non-discriminatory evaluation, zero-reject, due process, and parent and student

participation (see Basham, Stahl, Ortiz, Rice & Smith, 2015 for an elaboration on these for online learning). The Office of Special Education and Rehabilitative Services, a unit of the Department of Education, oversees IDEA. This law only applies to students ages 3 to 21 who are enrolled in K-12 public schools. It does not apply to higher education.

Selected Case Law and Civil Complaints about Accessibility

Louisiana Tech University: A visually impaired student at Louisiana Tech sued the university and its board in 2013 for discrimination under Title II of ADA. The student enrolled in a course with inaccessible online materials that were not remediated until more than a month into the quarter. The settlement terms included remediation of content, a more comprehensive accessibility policy, and training for instructors and administrators on ADA requirements (Department of Justice Office of Public Affairs, 2013).

Miami University of Ohio: In 2014, a blind student sued Miami University of Ohio for discrimination under Title II of the ADA because the institutions website and licensed software from vendors such as Pearson and TurnItIn were inaccessible (Straumsheim, 2014). The terms of settlement included remediating online content to conform to WCAG 2.0 guidelines, creating individualized accessibility plans with each student requesting accommodations, a clear technology audit and procurement process, and monetary compensation to disabled students (Department of Justice Office of Public Affairs, 2016).

Harvard University and Massachusetts Institute of Technology: Harvard and MIT were sued in February 2015 by advocates for the deaf, who claimed that the institutions were not providing close-captioned videos in online course materials related to edX, the joint Massive Open Online Course (MOOC) venture between Harvard and MIT (Lewin, 2015). The lawsuit was settled with a four-year, multi-provision plan for the remediation of the edX website and course content according to WCAG 2.0 guidelines (U.S. Department of Justice, 2015).

University of California at Berkeley: The United States Department of Justice opened an investigation into UC Berkeley in August 2016 for inaccessible videos that were publicly available on the "webcast.berkeley" site. These videos were not prepared for users with visual or hearing disabilities (Silberman, 2018). Released DOJ documents indicated that UC Berkeley was in violation of Title II. DOJ mandated that the institution either move the videos into an authentication-required area or remediate 20,000 videos, and UC Berkeley ultimately chose the former option (Straumsheim, 2017). Externally, the university was criticized for removing free educational resources from the public domain.

Website Accessibility Complaints filed with the Office of Civil Rights: Over the past few years, school websites have come under increased external scrutiny for the accessibility of their websites pursuant to ADA requirements. Higher education institutions such as the South Carolina Technical College System as well as K-12 districts have received complaints that can be filed through the Office of Civil Rights website.

Many other accessibility-related lawsuits and complaints have been filed. The University of Minnesota at Duluth's complaint tracking website is a helpful resource for monitoring their progress. While much judicial action in the form of civil suits has occurred in higher education over accessibility matters, K-12 online schools are more frequently subject to accessibility complaints made through the Office of Civil Rights. In either case, conflicts are expensive and embarrassing to schools and distressing for learners who do not receive equal access to education.

Accessibility in Higher Education Online Learning

An ongoing and prominent area of concern around providing accessible materials is the accessibility of textbooks, courseware, and other course materials. Not all publishers offer accessible digital formats of textbooks and courseware yet. If course materials are inaccessible, institutions then bear the burden of remediating them, which can be a time-intensive, expensive, and publicly embarrassing process if legal action occurs.

Many institutions are still working on clear and reliable processes for ensuring accessibility of educational technology and course content. Ideally, all institutions of higher education make accessibility a primary concern whenever new educational technologies are adopted. That means that accessibility features and functions should be built in from the beginning, rather than approached retroactively. When new products and vendors are under consideration, cross-functional teams of IT professionals, accessibility specialists, and faculty or staff should make informed decisions about the functionality of the tool for many different users along with cost and other considerations. A vendor is often willing to provide a Voluntary Product Accessibility

Template, or VPAT, which includes a basic audit of the product's accessibility features. Even when a vendor provides an acceptable VPAT, institutions should conduct additional usability testing with students who have disabilities in order to more fully assess the product for different types of users.

Currently, the parties responsible for creating and maintaining accessible content are some combination of the following, with variations dependent upon institutional size and resources:

- An accessibility or disability services unit that centralizes the production and audit of accessible content and may provide training on accessibility.
- An IT unit may provide guidance and/or training on the technical specifications for accessibility.
- Faculty and staff may receive training on accessible content authoring and may be to some degree responsible for content accessibility.

Inside Higher Ed compiled perspectives from faculty and administrators to understand how institutions meet accessibility requirements differently (Lederman, 2017). Regardless of how these tasks are shared, faculty and staff need basic training on creating accessible content, both so that they are aware of how simple choices like document structure can facilitate or forestall accessibility and so that content can be at least partially accessible before an internal audit review occurs.

References to accessibility often imply legal compliance. However, teaching and learning professionals in higher education often employ a broader lens for these considerations called

Universal Design for Learning, or UDL (DO-IT, n.d.). Accessibility and UDL often work hand-in-hand since flexible content formats support different paths to achieving learning outcomes for all students. For example, the content of an online course may get fully remediated for accessibility because a student with a visual disability enrolled. Accessible content and structure will support the student's success in the course. However, other students without disabilities can also benefit from accessible content, such as lecture materials available that are available in downloadable audio formats, so they can listen to them on the bus ride into work or while attending to children.

Accessibility in K-12 Online Learning

Unlike higher education, K-12 education has stewardship and supervision roles in their work with students (Paufler & Amrein-Beardsley, 2016; Archambault, Kennedy, & Bender, 2013). For example, educators cannot release students to work off school grounds early or late without making arrangements with parents. When children are physically in a school, the school officials are responsible for their health and welfare. Moreover, schools provide therapies to students with disabilities, meals (breakfast and lunch), access to other community or screening resources like visual acuity and hearing tests, and special equipment like technologies and recreational facilities (Stah, Rank, East, Rice, & Mellard, 2017).

Currently, students that need to or prefer to work online are stripped of that direct supervision by licensed teachers and thereby of many elements of stewardship and support. Replenishing this supervision and access to resources presents challenges to fully online K-12 schools. These challenges spur policy debates as to what exactly a fully online school must provide in terms of

stewardship and supervision in order to provide FAPE (Rice, East, & Mellard, 2015). For example, even students who work online need (and deserve) visual acuity tests on a regular basis, but at the same time, how does a fully online school provide such a test to all 20,000 students enrolled in various parts of a state or the nation? What is fair for states to ask these schools to do? Thus, a critical access issue is making sure that K-12 students whose families cannot simply decline the services traditionally provided by schools are still invited and welcomed into online learning (Pace, Rice, Mellard, & Carter, 2017).

Once they are enrolled in online learning, students need to access online course content and other resources designed by the online school for their learning (Rice & Deshler, 2018). Certainly, younger children will need considerable assistance from parents or other onsite mentors, but there is increased emphasis on scaffolding K-12 students to work with their peers and be self-supporting in staying on task and finishing the work by drawing on learning strategies and resources like dictionaries and databases (Smith, Rice, Ortiz, & Mellard, 2017).

Another complication arises when students are not in fully online learning programs and instead are enrolled part-time in one course or several. In these cases, the online course provider and the primary school of attendance need to be in communication about dividing and assigning roles for ensuring course accessibility on both the “Can students enroll in the course?” and “Can students learn from the course?” perspectives.

Unfortunately, accessibility in K-12 online course design is often regarded as an afterthought or as a process of retrofitting rather than an integral upfront part of course design as a process. When this happens, the online teacher or even a (parent or on-site mentor) becomes the broker of accessibility. In some cases, a teacher's positive relationship with an individual student provides the motivation to persist, rather than engagement with accessible content. Moreover, young people cannot always articulate their accessibility needs the way adults can, who have more experience with learning and who are more likely to understand their exceptionalities. Young people might need to rely on adults to help them articulate their needs. In addition, IDEA (2004) legislation places the responsibility on the school to assess and make determinations about access to content with some help from parents.

A final critical element of access involves the non-cognitive skills required for learners, including students with disabilities, to be successful in online and blended settings (Stevens & Rice, 2016). These non-cognitive skills can be conceptualized as self-regulation (Zimmerman, 2008). Teachers, parents, and onsite mentors can provide coaching on self-regulation strategies for learning, but currently, much online course curriculum does not explicitly support the self-regulation or learning or student choices in learning that are important for all students, but critical for students with disabilities (Rice & Carter, 2016). Although it is required by law in Section 508 that instructional materials be offered in multiple modalities (e.g., visual and audio), actual choices about what to learn, when, and how to present learning lies at the heart of engaging instruction for young people. Thus, a relevant, compelling, flexible set of instructional materials is likely to serve far more students than one that does not have these characteristics.

The following questions should serve as a starting point for discussion about access and accessibility in K-12 online learning (Rice, 2018):

1. What is our overall vision for accessibility at our school? Are we just worried about legal compliance or do we have ethical commitments we want to fulfill?
2. Does the course welcome diverse students, including those with diverse learning needs?
3. Does the course account for the fact that students will be working alone or under the guidance of parents or other coaches who are likely not certified teachers? (This consideration is important even in programs where online teachers interact often with students.)
4. Does the course provide for student choices about what to learn, how to learn it, and what products constitute learning?
5. Is the course adaptive to student responses?
6. Does the course provide feedback to students or feedback to teachers who can then share information about progress to students?
7. Does the course facilitate student self-monitoring and instructor monitoring so that struggling students can be identified early?
8. How does the course either tether to or decouple from the regular school calendar and typical rhythms of activity?

Students who have been served well in online K-12 settings may be better positioned to be successful in higher education settings because they understand how online learning works. By paying careful attention to accessibility in online course design, we can raise a generation of successful online learners.

Conclusion

The considerations and current challenges for accessibility in both Higher Education and K-12 contexts speak to the need for proactive, thoughtful approaches at various levels to ensure accessible educational opportunities for students with disabilities. In higher education, those levels are institutional, department, program, and course. In K-12, those levels include the federal, state, district, school, and classroom. While there have been earnest attempts to increase accessibility, there simply have not been enough strategic efforts at all levels in order to stave off complaints, legal actions, and high attrition rates for students with disabilities.

We intend this document as an informational guide to support faculty members, instructional designers, administrators, instructors, and other groups who need a place to start as they take up roles as advocates for accessible online courses, programs, and schools. To that end, we have included resources that provide additional avenues for exploration and training on accessibility. Active discussion lists and communities of practice are also included to support engagement with a wide network of accessibility professionals who are tackling new and evolving accessibility challenges.

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Additional Resources

There are several listservs related to accessibility in higher education that interested parties may join:

EDUCAUSE IT-ACCESS Listserv

ATHEN Listserv

AHEAD

ALTMEDIA

The Oklahoma Statewide Virtual Charter School Board funded a Series of Informational Webinars about IDEA and Online Learning:

- *Individualization, accommodations, accessibility, student engagement*
- *Individualized Education Program development*
- *Procedural safeguards and parent participation*
- *Zero Reject, FAPE, LRE, Non-discriminatory Evaluation*

Here are links to other resources and guides on online learning and accessibility:

- Web Content Accessibility Guidelines (WCAG)
- University of Washington DO-IT
- IMS Global Accessibility

- Center for Universal Design in Education (CUDE)
- "Implementing UDL on Canvas (K-12/HE)" Course
- Center on Online Learning and Students with Disabilities Resources
- Michigan Virtual Learning Institute Research Reports
- North Carolina Virtual Public School Special Education/504 Services

About OLC Outlook: An Environmental Scan of the Digital Learning Landscape

OLC Outlook: An Environmental Scan of the Digital Learning Landscape is a series of original white papers from the OLC Research Center for Digital Learning & Leadership, designed to keep higher education professionals informed of the latest developments in the field of digital learning.

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