

Accessibility of Virtual Instruction in Higher Education: Challenges Caused by the COVID-19 Pandemic

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In 1990, the Americans with Disabilities Act (ADA) was passed. It prohibits discrimination against individuals with disabilities. Institutions of higher education are included under Title III of the ADA, and as such are required to provide the same access to services and education to qualified individuals with disabilities as individuals without. A review of the literature of accessibility of online programs and courses in higher education shows that compliance to the ADA is sporadic due to several challenges. In Spring 2020, all institutions of higher education transitioned to some form of online instruction due to the COVID-19 pandemic. This created even more challenges in complying to the law. This paper reviews the challenges to compliance to the ADA in online courses both in normal operations and during the COVID-19 pandemic, and offers recommendations and resources for improving compliance.

Keywords: Higher education, ADA, COVID-19 pandemic, online learning, accessibility

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The Americans with Disabilities Act (ADA) was passed in 1990 and protects individuals with disabilities from being discriminated against “in all areas of public life, including jobs, schools, transportations, and all public and private places that are open to the general public” (“What is the Americans with Disabilities Act (ADA)?”, 2021, para. 1). This allows individuals the same access to employment (Title I), public services (Title II), public accommodations and commercial facilities (Title III), telecommunications (Title IV), and miscellaneous provisions (Title V) as any other individual. Under the law, qualified individuals with disabilities are protected from discrimination and must be given accommodations where necessary (McCleary-Jones, 2005; Burke, Clapper, & McRae, 2016; Haleas, 2019; Gallegos & Sealey, 2015). An example of a common accommodation is a ramp in the curb of a sidewalk that allows easier access for persons with mobility impairments (Burke, Clapper, & McRae, 2016).

Public and private institutions of higher education are included under Title III of the ADA, and as such are prohibited from discriminating against any qualified employees or students with disabilities. The term “qualified” refers to an individual’s qualifications for employment or admittance to an institution. The ADA does not compel an institution to admit an individual with

disabilities if they do not meet admissions standards. Rather, the law requires institutions to provide accommodations to support individuals who are admitted (McCleary-Jones, 2005; Haleas, 2019). Common accommodations include sign language interpreters, alternative formats of materials, and assistive technology such as speech-to-text software (Burke, Clapper, & McRae, 2016).

Compliance to the ADA is required in all operations of higher education institutions, but the most apparent area is within instruction. As use of the internet increased and online programs became available, websites and online educational programs were added to the spaces that must comply to the ADA (Gallegos & Sealey, 2015; Burke, Clapper, & McRae, 2016; Taylor, 2019; Yang et al., 2020). Online and virtual programs are not new in higher education. They have been available and required to comply to the ADA for decades, but in March 2020, the COVID-19 pandemic forced institutions globally to pivot to fully online instruction (Huss & Eastep, 2016; Gillis & Krull, 2020; Smalley, 2020). Many institutions still employ some level of online or virtual instruction, whether that includes fully online courses or hybrid in-person/virtual instruction (Xu, 2020). This instant and forced change in instructional methods created challenges for institutions

of higher education in compliance to the ADA. Not only did instructors have to create online programs from the ground up, but they also were required to be ADA compliant. This paper will discuss the challenges of and recommendations for creating accessible online courses, including the challenges caused by the abrupt switch to virtual learning during the COVID-19 pandemic.

Challenges in Accessibility in Online Instruction

Fifteen percent of the world's population have disabilities that make online instruction challenging (Huss & Eastep, 2016; LaSala, Polyakova-Norwood & Starnes-Ott, 2020). One study showed that students perceive their disability to have a negative effect on their success in online courses (as cited in Huss & Eastep, 2016). Most online courses are not fully compliant with the ADA and institutions and instructors encounter many challenges in making online courses accessible (Huss & Eastep, 2016; Taylor, 2019; LaSala, Polyakova-Norwood & Starnes-Ott, 2020). These challenges include a lack of resources, technology, and an unclear understanding of responsibility (Huss & Eastep, 2016; Taylor, 2019; LaSala, Polyakova-Norwood & Starnes-Ott, 2020; Gillis & Krull, 2020). The abrupt pivot to online instruction in the response to the COVID-19 pandemic undoubtedly

exacerbated the challenges to the accessibility of online courses, but there is not yet significant research on the accessibility of online courses as effected by the pandemic (Gillis & Krull, 2020).

Resources

Recent research by Huss and Eastep shows that resources are a limiting factor in creating accessible courses (2016). They report that faculty and staff in higher education are typically understaffed and overworked. This makes it difficult to ensure compliance with the ADA. Instructors find it difficult to find the time to ensure compliance when designing their online courses. Instructors can, and are required to, provide accommodations to students with disabilities, but this takes time. The accommodations may be delayed, putting the student behind in the course (Huss & Eastep, 2016). Institutions also face challenges in retroactively adjusting courses. This requires a staff or faculty member to spend a significant amount of time to ensuring compliance. Ideally, institutions would take steps to design online courses and programs with a Universal Design, which preemptively includes course elements that are accessible to all students regardless of disabilities, but institutions cite a lack of funding to design these courses (LaSala, Polyakova-Norwood & Starnes-Ott, 2020; Huss & Eastep, 2016).

Technology

Several assistive technologies currently exist that make websites accessible to people with disabilities. For example, screen-reading programs can read content on pages for students with vision impairments (Burke, Clapper, & McRae, 2016; Gallegos & Sealey, 2015; Huss & Eastep, 2016). As web-content has become more sophisticated, some assistive technologies, like screen-reading technology, have become less effective (Gallegos & Sealey, 2015; LaSala, Polyakova-Norwood & Starnes-Ott, 2020). These programs cannot read images and charts if descriptive text is not included. Assistive technology is only one facet of accessibility in online courses. It is also important to consider the platform where online content is shared. Institutions use Learning Management Systems (LMS) to organize and share online content. Faculty often find their institution's LMS difficult to operate (LaSala, Polyakova-Norwood & Starnes-Ott, 2020). If the instructor does not know how to navigate a complicated LMS, they will likely miss opportunities to design their courses to be accessible.

Responsibility

Another challenge of ensuring accessibility of online courses is the lack of clear responsibility. Some individuals believe it is not their job to ensure accessibility and that

it falls to the academic department to provide oversight on compliance (Huss & Eastep, 2016; Burke, Clapper, & McRae, 2016). Faculty may not be motivated to spend the time to make their courses accessible (LaSala, Polyakova-Norwood & Starnes-Ott, 2020). Some faculty put the onus on the student to request accommodations instead of designing accessible online content (Huss & Eastep, 2016). Existing research emphasizes the importance of clearly designating responsibility of compliance (Huss & Eastep, 2016; Burke, Clapper, & McRae, 2016).

Cases

Previous research provides specific cases to consider in making online courses accessible for students with disabilities. In the following section, two cases will be considered. The first examines accessibility of online courses. The second examines the transition to online courses during the COVID-19 pandemic. The cases were chosen to provide a comparison of accessibility before and during the pandemic.

Faculty Awareness of Accessibility

In 2016, John Huss and Shannon Eastep published a study on the accessibility of online instruction. The study examined the current compliance with ADA guidelines in

online courses as well as faculty awareness of compliance issues. In their review of existing literature, Huss and Eastep found that students with disabilities participate in online courses at a rate that is lower than expected. This points to the accessibility of online courses, which they describe as “sporadic at best” (2016, p. 4). As awareness of access issues increased, so did participation in online courses. In their review of the literature, they concluded that faculty are the missing link in creating accessible online courses.

Huss and Eastep used a survey to determine the accessibility of online courses at their institution, a growing Midwest university with over 15,000 students and 2000 faculty and staff (2016). The results of the survey show a lack of accessibility in online courses. Most respondents either did not make content accessible or were unaware if their content was accessible. For example, only 9% of respondents reported that their video files included closed captioning. Thirty-two percent reported that only some of their video files used closed captioning, 32% reported that none of the video files used close captioning, and 14% reported that they did not know if their video files used closed captioning (Huss & Eastep, 2016).

The results of the study identify several challenges to making online course

content accessible. Faculty reported a lack of familiarity with assistive technology and were not aware of the expectation to make courses accessible. Many faculty respondents shared a will to make course content accessible, but that they lack the skills or knowledge to do so. The biggest limitations to compliance included a lack of training and knowledge, time, tools, and financial resources (Huss & Eastep, 2016). The study also found that most attempts to make courses compliant come after a student requests accommodation, rather than during the course design process.

COVID-19 Remote Learning Transition

In Spring 2020, all in-person courses transitioned to some form of remote instruction due to the COVID-19 pandemic. This forced instructors to quickly remodel course content to be accessible virtually (Xu, 2020; Gillis & Krull, 2020; Smalley, 2020). A common strategy was to move courses into existing Learning Management Systems (LMS) while holding synchronous meetings using various video chat programs (Gillis & Krull, 2020). In October 2020, Alanna Gillis and Laura Krull published a study that examines faculty and student perception of the transition to online learning in Spring 2020. Due to the recency of the pandemic and the critical nature of it, there is a vacuum of literature on the topic of ADA compliance

in the transition to online learning. Knowing that compliance to ADA in online courses was sporadic prior to the pandemic, it is unlikely that accessibility and compliance improved in the transition to online learning (Gillis and Krull, 2020). While this study does not directly address issues of ADA compliance, the results and discussions can be applied to accessibility issues.

Gillis and Krull found that instructors used a variety of instructional techniques in the transition during the pandemic. These include virtual drop-in office hours, Zoom lectures, individual worksheets, Zoom discussions, and small group video chat discussions. The authors asked students to rate the instructional methods on various metrics, including accessibility. In rating the instructional methods on accessibility, 50% of students reported that drop-in hours were accessible, 71% reported live Zoom lectures to be accessible, 94% reported individual worksheets were accessible, 77% reported that Zoom discussions were accessible, and 70% reported small group video chats to be accessible. These ratings of students' perception of accessibility measured how easily students could access this course material given the constraints of the pandemic. It did not specifically address accessibility of content for students with disabilities, although the responses would include the perceptions of students with

disabilities. The authors found a trade-off between accessibility and effectiveness. Students found instructional methods that were more accessible, like individual worksheets and assignments, to be less effective (Gillis & Krull, 2020).

Case Comparison

The same challenges of accessibility in online courses apply both before and during the pandemic. Instructors cite time and lack of familiarity with technology as challenges for creating accessible online course content (Huss & Eastep, 2016; Smith et al., 2020). In the transition to online learning during the pandemic, time was even more limited. Many instructors also had to learn new technologies like Zoom or their institution's LMS (Gillis & Krull, 2020). Some course platforms, content, and formats did not provide clear accessibility options (Smith et al., 2020). For example, instructors must be wary of including external websites or content that may not be accessible. Because the transition took place in the middle of the Spring 2020 semester, instructors were aware of students who already had accommodations. The issue of time and technology still affected these students though, as it took time and technology savvy to ensure these accommodations would translate to the online content. Moving forward, as online instruction continues

during this pandemic and after, instructors, staff, and students should work together to identify accessibility needs before the semester begins. This will allow more time to address the needs of all enrolled students.

Recommendations

The previously reviewed cases and existing resources provide recommendations for improving accessibility of online courses both in normal operations and in a crisis such as the pandemic. The most effective way to ensure accessibility at all times is to practice Universal Design (McCleary-Jones, 2005; Huss & Eastep, 2016). Universal Design is defined by the United Nations as “the design of products, environments, programs and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (n.d.). In this process, instructors originally design courses content to be accessible to all, regardless of disabilities. In using Universal Design, all course materials include alternative ways to access the material. For example, all videos would automatically include captions. When courses are designed with accessibility in mind, it reduces the time it takes for students to receive accommodations, providing a better educational experience (Huss & Eastep, 2016). Universal Design would also limit accessibility issues during crises. If the

course is already designed to be accessible, instructors will not have to scramble to ensure accessibility.

Other recommendations to improve accessibility include improving faculty awareness of the ADA, investing in purchasing and training for assistive technology and accessible LMSs, and clearly defined roles of responsibility. If faculty and staff are aware of ADA guidelines, are expected to adhere to them, and are provided the necessary training, time, and resources, accessibility in online instruction will be improved during normal operations and during a crisis.

Many faculty and staff report being either unaware of ADA guidelines for online instruction or being unprepared to adhere to guidelines (Huss & Eastep, 2016; Smith et al., 2020; Burke, Clapper, & McRae, 2016). Institutions should require regular training on ADA guidelines to improve compliance. When the ADA was originally passed, the internet was not a widely-used tool and it was not included in spaces that were required to comply to the ADA. Eventually, websites, including online instruction, were added to spaces that are required to comply to the law (Haleas, 2019). As technology improves and instructional methods change, ADA guidelines will also change. Regular training in the onboarding processes as well as required refresher courses every few years

will ensure that all faculty and staff are up to date on the guidelines of the law (Huss & Eastep, 2016).

Institutions should invest in effective technology as well as training for faculty and staff (Smith et al., 2020). Before the transition to online learning in Spring 2020, many instructors had not yet taught online courses, and as such, were not familiar with their institution's LMS (Gillis & Krull, 2020). Institutions or individual academic units should not only provide opportunities for professional development on effective online teaching, but should require training on the use of their LMS. Additionally, institutions should invest in technologies and LMSs that make integrating accessible content an easy process. Institutions that already have such technology should focus on improving awareness of the availability of these programs as well as providing training on how to use them.

Responsibility is an important aspect of compliance. Faculty cite confusion over who is responsible for ensuring compliance to the ADA (Huss & Eastep, 2016; Smith et al., 2020; Burke, Clapper, & McRae, 2016). Institutions and departments should clearly define who is responsible for this. Initially, it is up to each instructor to design their course to be accessible. As established, not all instructors do this due to a myriad of challenges. This points to the need for

oversight. Each academic department should have a designee that checks current courses, both traditional and online, to ensure compliance. During times of crisis, compliance should not be forgotten. Institutions should have a task-force, department, or committee at the institutional-level that is responsible for compliance to the ADA. This group would create protocols for compliance and oversight. This group would be particularly helpful in a crisis, since attentions of other employees and administrators are usually focused on the crisis.

Conclusions and Next Steps

Existing research on online course accessibility for students with disabilities establishes the need for significant improvement. Faculty are unaware of ADA guidelines or lack the support and resources to initially design accessible courses or to adjust previously designed courses (LaSala, Polyakova-Norwood & Starnes-Ott, 2020; Huss & Eastep, 2016; Taylor, 2019; Gillis & Krull, 2020). When courses are not initially designed to be accessible, students must ask for accommodations, which can lead to delays in receiving content and assignments (Huss & Eastep, 2016). Institutions must address these challenges to improve accessibility for students. If accessibility is improved during regular operations, it is less

likely to become a critical issue during crises such as the COVID-19 pandemic.

To improve accessibility of online courses, it is essential to study the transition to online learning and the continued online instruction since Spring 2020. There is very little research on how institutions and instructors handled the issue of accessibility of online courses during the pandemic. It is clear that online instruction will remain a common method even after the pandemic and that instructors are more prepared to continue teaching online (Lederman, 2020). If online courses are here to stay, institutions and instructors need a plan to ensure that their courses and content are accessible to students with disabilities. Studying the transition to online learning can provide a starting point for these plans. Instructors can share the challenges they encountered, as well as successes in making their online content accessible. Institutions and instructors should then share their plans. Talking to colleagues and sharing tools and methods can improve the overall

accessibility of online courses. Beyond creating and sharing plans to improve accessibility, institutions and researchers continually assess the accessibility of their instructional programs. This is essential due to the lack of research in accessibility of online courses.

Instructors and faculty should also take advantage of institutional resources that already exist. Ideally, training on the ADA and on compliance techniques would be required for continued employment. When it is not, faculty should take the responsibility to learn how to make their courses accessible. Many institutions have disability resource centers and teaching resource centers. These departments often offer optional training and professional development on improving accessibility. They also offer training on the technologies and LMS that the institution has purchased. If an institution does not have these trainings already developed, the faculty should request they be created.

SUGGESTED READINGS

Below is a list of articles and resources that may be of use to faculty or instructors who would like to improve the accessibility of their courses. This is not an exhaustive list, but is a starting point for Universal Design and making courses accessible for students with disabilities.

- ADA Disability and COVID-19ADA National Network. Schools and Education. ADA, Disability and Coronavirus (COVID-19) Resources. <https://www.adacovid19.org/education>.
- Burgstahler, S. (2017, January 30). ADA Compliance for Online Course Design. *EDUCAUSE Review*. <https://er.educause.edu/articles/2017/1/ada-compliance-for-online-course-design>.
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- Online Learning & eLearning Resources During Coronavirus Pandemic Online Learning & eLearning Resources During Coronavirus Pandemic. Rev. (2020, June 30). <https://www.rev.com/blog/education-e-learning-resources-during-coronavirus-pandemic>

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