IT Accessibility

Scenario

David, Mia, and a few of their friends are meeting to work on a class project. They share an appreciation for their instructor's use of a variety of technologies to keep the class fresh, interesting, and engaging. Face-to-face lectures are supplemented with live web meetings, online discussion forums, online video, and a wiki that students maintain. Even though David is blind and Mia is deaf, they are able to participate fully in these class activities.

Previously, many of these technologies presented problems for David, who uses a screen reader to listen to content audibly and uses keyboard shortcuts to navigate. His freshman year was frustrating because many of the technologies were designed with expectations that users all have eyesight and can use a mouse. David faced barriers trying to complete assignments and participate in class activities. Registering for classes using the online system was impossible. Mia faced similar problems. In the past she would have avoided any class that used recorded audio or video, but now she's confident that all videos will be captioned.

David and Mia's college experience began to improve when their institution implemented an IT Accessibility Initiative. A high-level policy was adopted that requires all IT developed, procured, or used by the institution to be accessible. An IT Accessibility Committee was formed, led by an IT Accessibility Specialist and including staff from distance learning, disability services, purchasing, marketing, libraries, and other departments. The committee reviews IT purchases for accessibility and works to help vendors understand how to meet the institution's accessibility requirements. In addition, an informal group of web designers and developers has formed a grassroots accessible web community that communicates regularly and meets to share ideas, host guest speakers, and review each other's websites for accessibility. The Faculty and Staff Training Development group integrates accessibility into its instruction on using technology in the classroom.

These efforts have resulted in an institutional culture that embraces accessibility. The campus community shares the vision of having a fully accessible, technology-enhanced learning environment, where all students, as well as faculty and staff, can equally participate and are actively engaged with the programs, services, activities, and opportunities the institution offers.

1 What is it?

IT accessibility is the ongoing process by which an organization ensures its current and future IT can be used effectively by everyone, including individuals with disabilities. Electronic documents, websites, software, hardware, video, audio, and other technologies can provide substantial benefits to students, faculty, and staff in higher education. However, without careful planning these technologies can erect barriers that limit access to certain groups of people and place institutions at legal risk. People interact with technology in many ways: Individuals who are blind use a screen reader or refreshable Braille device; individuals with low vision use screen magnification or high-contrast color schemes; individuals with dyslexia might use highlight-and-read solutions that combine audible and visual output; individuals who are physically unable to use a mouse might rely exclusively on keyboard commands or use assistive technologies such as speech-recognition software, head pointers, mouth sticks, or eye-gaze tracking systems; individuals who are deaf or hard of hearing, second-language learners, and people in large classrooms or other noisy environments might use captioning or transcripts for accessing audio and video content. Accessible technology works for *all* of these users and countless others.

2 How does it work?

Accessible IT works by complying with accessibility standards such as the U.S. federal government's Section 508 standards or the World Wide Web Consortium's Web Content Accessibility Guidelines 2.0. When IT conforms to accessibility standards, assistive technologies can effectively render content and interfaces, enabling users with disabilities to fully participate. Institutionally, IT accessibility works when a college or university places high value on accessibility. It works through careful planning by establishing policies and procedures that require accessibility to be considered in development and procurement. It works by creating processes to audit and continually monitor compliance. It works through support at the highest levels of the institution. It works by having a designated individual or office that coordinates IT accessibility efforts. Ultimately, it works when accessibility is part of the culture and is a shared responsibility among everyone at the institution.

IT Accessibility

3 Who's doing it?

Many stakeholders are involved in IT accessibility, including IT administrators, IT management and staff, disability services coordinators, web designers and developers, distance learning professionals, faculty, learning technologies groups, librarians, help desk staff, project managers, and vendors. **Anyone who plays some role in producing or distributing electronic communications, applications, or services can play an important role in ensuring that IT is accessible.** Growing numbers of higher education institutions are addressing IT accessibility at the highest levels of the organization through institutional policy.

4 Why is it significant?

Higher education has ethical and legal obligations to ensure that programs and services are accessible to all learners and employees. Section 504 of the Rehabilitation Act of 1973 prohibits discrimination against individuals with disabilities in any program or service that receives federal funding. The Americans with Disabilities Act of 1990 extends the scope of these protections and includes accessibility requirements for employers, public entities including public higher education institutions, and public accommodations including private higher education institutions. Growing numbers of U.S. institutions face legal challenges under both of these laws—and applicable state laws—due to inaccessible IT. Students with disabilities are attending college in greater numbers than ever before, both face-to-face and online. According to numerous studies, however, they are significantly less likely than their nondisabled peers to graduate or pursue graduate degrees. As IT plays an increasingly integral role in higher education, whether IT is accessible can have a major impact on student success. Further, many of the technologies that enhance accessibility help *all* students learn.

5 What are the downsides?

IT accessibility requires specialized knowledge and therefore requires an investment in training of faculty and staff. Accessibility monitoring requires constant vigilance. Even if an IT asset has been evaluated and approved for accessibility, a software update can easily break that accessibility. Some aspects of accessibility (e.g., captioning video) can be costly and require advanced planning, prioritizing, and budgeting. However, these investments often benefit all students—for example, captioning makes it possible to search the full content of videos. Further, addressing issues in the early phases of a project is significantly less costly than fixing problems later. Including accessibility upfront avoids costs associated with lawsuits and intangible costs such as damage to an institution's reputation that could result from disability discrimination complaints.

6 Where is it going?

Inaccessible technologies create problems that higher education institutions need to solve. Technology changes at a rapid pace, and many innovations fail to address accessibility, forcing accessibility professionals to play catch-up to make new technologies accessible. As IT has become more pervasive in higher education, the responsibility for ensuring accessibility is moving from disability services offices to IT groups, who are beginning to understand the inadequacies and inefficiencies in retroactively adding accessibility fixes onto inaccessible products. This results in **a greater focus on universal design—the process of designing a product, service, course, or environment in a way that works well for a broad spectrum of users**—and in policies and procurement practices that demand accessible choices from vendors. Accessibility might also be shaped by new laws and regulations, as the Department of Justice, U.S. Access Board, U.S. Congress, advocacy groups, and courts have all been actively engaged in recent years to improve the availability of accessible IT.

7 What are the implications for higher education?

College and universities foster, share, and disseminate information and knowledge. Accessibility is inherent in this mission and **should be pervasive in the work that IT professionals do.** Just as they include security, institutions should consider accessibility when creating, procuring, or deploying IT. Institutions that develop policies, procedures, and plans to address accessibility avoid exposure to growing legal risks while serving the needs of *all* students, faculty, staff, visitors, and alumni. Colleges and universities can start addressing IT accessibility in a variety of ways, including sending staff to conferences focused on accessible IT, establishing IT accessibility committees or task forces, conducting research into accessibility-related policies or guidelines, investing in web accessibility checkers, or conducting capacity-building institutes that bring together a variety of stakeholders on campus.

Members of the EDUCAUSE IT Accessibility Constituent Group contributed to this publication.