



Equal Access: Universal Design of Distance Learning

DO-IT

by Sheryl Burgstahler, Ph.D.

Represented by students in distance learning courses are a variety of racial and ethnic backgrounds, ages, native languages, and learning styles. In addition, increasing numbers of students with disabilities participate in regular precollege and postsecondary courses. Their disabilities include blindness, low vision, hearing impairments, mobility impairments, learning disabilities, and health impairments.

Students are in school to learn and instructors share this goal. How can distance learning educators design instruction (UD) to maximize the learning of all students? The field of universal design can provide a starting point for developing a model for instruction.

Legal Issues and Standards

Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 mandate that qualified people with disabilities have access to public programs and services. In 1996, the U.S. Department of Justice clarified that ADA accessibility requirements apply to programs offered on the Internet by stating: "Covered entities that use the Internet for communications regarding their programs, goods, or services must be prepared to offer those communications through accessible means as well" (<http://www.usdoj.gov/crt/foia/cltr204.txt>). Specifically, if qualified individuals with disabilities enroll in distance learning courses offered via the Internet, these courses should be made accessible to them.

Section 508 of the Rehabilitation Act of 1973 requires that electronic and information technologies procured, developed, maintained, and used by federal agencies meet the acces-

sibility standards of the U.S. Architectural and Transportation Barriers Compliance Board (Access Board), unless it would be an undue burden to do so. The standards include criteria for making web pages and other Internet tools accessible. Although this law applies directly to federal agencies, many states and other organizations have adopted Section 508 standards as one effort to meet their obligations under Section 504 and the ADA. The World Wide Web Consortium (W3C) developed comprehensive *Web Content Accessibility Guidelines* (<http://www.w3.org/TR/WAI-WEBCONTENT/>) that tell how to design websites that are accessible to people with disabilities.

Distance learning programs can benefit from following the leadership of the federal government by being proactive (by applying universal design principles) and reactive (by providing accommodations) when it comes to making distance learning programs fully accessible to individuals with disabilities. Such an approach will result in a more inclusive program and minimize the need for accommodations for specific students.

Universal Design

Designing any product or environment involves the consideration of many factors, including aesthetics, engineering options, environmental issues, industry standards, safety concerns, and cost. Typically, products and environments are designed for the average user. In contrast, UD is "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (<http://www.design.ncsu.edu>).



edu/cud/about_ud/about_ud.htm). For example, a standard door is not accessible to everyone. If a large switch is installed, the door becomes accessible to more people, including some wheelchair users. However, applying U.D. principles when a facility is being designed could lead to the installation of sensors that signal the door to open when anyone approaches, making the building accessible to everyone—a small child, a man carrying a large box, an elderly woman, a person using a walker or wheelchair.

Today, most distance learning programs only deal with accessibility issues when a student with a disability enrolls in a course; in other words, they provide accommodations. The process of making accessibility decisions while a distance learning course is being developed to assure that it is accessible to potential students with a range of abilities, disabilities, learning styles and preferences, native languages, and other characteristics is an application of UD. Applying UD as distance-learning courses are being developed can be easier and therefore less expensive than quickly developing accommodation strategies each time a student that requires accommodation enrolls in a course. UD can also make courses more flexible to meet the needs of all students.

When architects design buildings to be used by those who walk independently or with crutches, push baby strollers, and use wheelchairs, they are more accessible to everyone else. Similarly, distance learning courses that incorporate universal design features can be accessed by students with diverse characteristics, such as age; race; ethnicity; gender; native language; and ability to hear, see, move, and speak.

Ten Indicators of Distance Learning

Ten indicators of accessible distance learning programs were identified based on a review of the literature from distance learning administrators on their experience creating accessible distance learning courses for potential students and instructors with disabilities. The Distance Learning Program Accessibility Indicators (DLP Accessibility Indicators) can be used as a checklist for documenting changes that lead to improved accessibility of the courses in any distance-learning program.

In an iterative process, the Indicators were shared with and refined through substantive feedback from disabled student service and distance learning staff at sixteen postsecondary institutions as part of the *DO-IT Admin* (see <http://www.washington.edu/doiit/Brochures/Academics/admin.html>) project. This project was funded by the U.S. Department of Education (grant #P333A020044) and directed by DO-IT (Disabilities, Opportunities, Internetworking, and Technology) at the University of Washington. Participating schools possess a wide range of institutional characteristics such as large and small schools; two-year and four-year institutions; and schools from rural, suburban, and urban areas. Each Indicator relates to one of the four key stakeholders in the delivery of distance learning courses:

1. students and potential students,
2. distance learning designers,
3. distance learning instructors, and
4. distance learning program evaluators.

On many campuses, particularly those with small distance learning programs, one person may perform two or more of the last three roles. The DLP Accessibility Indicators in this ongoing project are described in the four sections that follow. They were also published along with examples of their use and a case



study of the distance learning program at the University of Washington in the journal *Research in Learning Technology* (Burgstahler, Vol. 14, No. 1, 2006).

For Students and Potential Students

Distance learning programs committed to accessibility ensure that students and potential students know of the programs' commitment to accessible design, how to report inaccessible design features they discover, how to request accommodations, and how to obtain alternate formats of printed materials. Additionally, the distance learning home page and online and course materials are accessible to individuals with disabilities.

- *DLP Accessibility Indicator 1.* The distance learning home page is accessible to individuals with disabilities (e.g., it adheres to Section 508, World Wide Web Consortium or institutional accessible-design guidelines and standards).
- *DLP Accessibility Indicator 2.* A statement about the distance learning program's commitment to accessible design for all students, including those with disabilities, is included prominently in appropriate publications and websites along with contact information for reporting inaccessible design features.
- *DLP Accessibility Indicator 3.* A statement about how distance learning students with disabilities can request accommodations is included in appropriate publications and web pages.
- *DLP Accessibility Indicator 4.* A statement about how people can obtain alternate formats of printed materials is included in publications.
- *DLP Accessibility Indicator 5.* The online and other course materials of distance learning courses are accessible to individuals with disabilities.

For Course Designers

Distance learning programs that are committed to accessibility ensure that course designers understand the program's commitment to accessibility, have access to guidelines and resources, and learn about accessibility in training provided to course designers.

- *DLP Accessibility Indicator 6.* Publications and web pages include a statement of the program's commitment to accessibility, guidelines or standards regarding accessibility, and resources.
- *DLP Accessibility Indicator 7.* Accessibility issues are covered in course designer training.

For Instructors

Distance learning programs committed to accessibility, publications and web pages for distance learning instructors include a statement of the distance learning program's commitment to accessibility, guidelines regarding accessibility, and resources; and training for instructors includes accessibility content.

- *DLP Accessibility Indicator 8.* Publications and web pages for distance learning instructors include a statement of the distance learning program's commitment to accessibility, guidelines or standards regarding accessibility, and resources.
- *DLP Accessibility Indicator 9.* Accessibility issues are covered in training sessions for instructors.

For Program Evaluators

Distance learning programs committed to accessibility have systems in place to monitor accessibility efforts and make adjustments based on evaluation results.

- *DLP Accessibility Indicator 10.* A system is in place to monitor the accessibility of



courses and, based on this evaluation, the program takes actions to improve the accessibility of specific courses as well as update information and training given to potential students, actual students, course designers, and instructors.

Examples and Next Steps

Employing UD principles as Internet-based distance learning courses are created brings us closer to making these opportunities accessible to anyone, anywhere, at any time. Distance learning programs are encouraged to test these Indicators and send suggestions for improvements to this work in progress to sherylb@u.washington.edu. Distance learning professional organizations are also encouraged to take a leadership role in promoting the development of accessible courses by all programs.

Resources

For an overview of access barriers, strategies for making distance learning instructional tools (e.g., web pages, Internet-based communication, printed materials, videos, telephone conferences) accessible to all students, and resources, consult the publication *Real Connections: Making Distance Learning Accessible to Everyone* at <http://www.washington.edu/doit/Brochures/Technology/distance.learn.html>. For more information on applications of universal design, consult *Applications of Universal Design* at <http://www.washington.edu/doit/Resources/udesign.html>.

About DO-IT

DO-IT (Disabilities, Opportunities, Internetworking, and Technology) serves to increase the successful participation of individuals with disabilities in challenging academic programs and careers such as those in science, engineering, mathemat-

ics, and technology. Primary funding for DO-IT is provided by the National Science Foundation, the State of Washington, and the U.S. Department of Education. The contents of this brochure were developed under a grant from the Department of Education, Office of Postsecondary Education grant #P333A020044. However, these contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.

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