



Access to Technology: An Online Tutorial

How individuals with disabilities can use computer and networking technology

“Electronic and information technology” (referred to as simply “technology” in this publication) includes a broad range of products used to acquire, store, manipulate, and transmit information. These technologies include computers, software, websites, telephones, science lab equipment, CDs, videos, photocopiers, fax machines, and calculators.

Many technology products are designed in such a way that they are inaccessible to people with some types of disabilities. For example, a person with a visual impairment may not be able to interpret telephone use instructions if they are presented only in a visual format; a person who is deaf cannot access content of a software program that is only presented aurally. Too often even those individuals with disabilities who have assistive technology, a computer, and Internet connection, still cannot make full use of technology because of the inaccessible features of hardware or software. In contrast, when universal design principles are employed as technology is created or updated, the resulting products are fully accessible to a broad audience, including assistive technology users.

This tutorial, created by DO-IT (Disabilities, Opportunities, Internetworking, and Technology), describes how people with disabilities use computers, tells how technology can be made accessible, and lists resources for further study. To complete the tutorial, simply read the documents and freely view the video presentations online; you can also purchase the videos in DVD format from DO-IT. You will find it easier to link to the websites if you use the electronic form of this document at www.uw.edu/doit/Brochures/Technology/aeit.html.

How do individuals with disabilities access technology?

Read the publication and view the video *Working Together: People with Disabilities and Computer Technology* at www.uw.edu/doit/Video/wt_dis.html.

View the video *Access to Technology in the Workplace: In Our Own Words* at www.uw.edu/doit/Video/access_tech.html.

Read the publication and view the video *Working Together: Computer Technology and People with Mobility Impairments* at www.uw.edu/doit/Video/wt_mobility.html.

Read the publication and view the video *Working Together: Computers and People with Sensory Impairments* at www.uw.edu/doit/Video/wt_sensory.html.

Read the publication and view the video *Working Together: Computers and People with Learning Disabilities* at www.uw.edu/doit/Video/wt_learn.html.

What are specific types of technology and how can they be made accessible to people with disabilities?

Accessible Web Pages and other Internet Tools

Read the publication and view the video *World Wide Access: Accessible Web Design* at www.uw.edu/doit/Video/www.html.

Read *Section 508 Guide: Web-Based Intranet and Internet Information and Applications* at www.access-board.gov/sec508/guide/1194.22.htm.



Read the *WebAIM Section 508 Checklist* at www.webaim.org/standards/508/checklist.

Read the *Checklist of Checkpoints for Authoring Tool Accessibility Guidelines* at www.w3.org/TR/ATAG10/atag10-chktable.html.

Read *Accessibility of Online Chat Programs* at www.webaim.org/articles/archives/chats/.

Accessible Telecommunications Products

Read *Use of Telecommunications Products by People with Disabilities* at www.uw.edu/doit/Brochures/Technology/telcom.html.

Read the *Technical Bulletin: Access to Telecommunications* at www.access-board.gov/adaag/about/bulletins/telecomm.htm.

Read *About the Telecommunications Act Accessibility Guidelines* at www.access-board.gov/telecomm/about%20telecomm.htm.

Read *Disabled Persons' Telecommunications Access-Section 255* at www.fcc.gov/guides/disabled-persons-telecommunications-access-section-255.

Read *Telecommunications Relay Services (TRS)* at www.fcc.gov/guides/telecommunications-relay-service-trs.

Read *Guide to Section 508 Standards: Telecommunications Products* at www.access-board.gov/sec508/guide/1194.23.htm.

Accessible Video and Multimedia Products

Read *Creating Video and Multimedia Products that are Accessible to People with Sensory Impairments* at www.uw.edu/doit/Brochures/Technology/vid_sensory.html.

Read *Guide to Section 508 Standards: Video and Multimedia Products* at www.access-board.gov/sec508/guide/1194.24.htm.

Read *Emergency Video Programming Accessibility to Persons with Hearing and Visual Disabilities* at www.fcc.gov/guides/emergency-video-programming-accessibility-persons-hearing-and-visual-disabilities.

Read *Closed Captioning* at www.fcc.gov/guides/closed-captioning.



Accessible Software

Read *Designing Software that is Accessible to Individuals with Disabilities* at www.uw.edu/doit/Brochures/Technology/design_software.html.

Read *Guide to Section 508 Standards: Software Applications and Operating Systems* at www.access-board.gov/sec508/guide/1194.21.htm.

Review *Software Accessibility Checklist* at www.usdoj.gov/crt/508/archive/oldsoftware.html.

Read *Software Accessibility* at www-306.ibm.com/able/guidelines/software/accesssoftware.html.

Accessible Desktop and Portable Computers

Read *Guide to Section 508 Standards: Desktop and Portable Computers* at www.access-board.gov/sec508/guide/1194.26.htm.



Accessible Self Contained, Closed Products
Read *Guide to Section 508 Standards: Self Contained, Closed Products* at www.access-board.gov/sec508/guide/1194.25.htm.

What are examples of where accessible technology should be used?

Read the publication and view the video *Real Connections: Making Distance Learning Accessible to Everyone* at www.uw.edu/doit/Video/real_con.html.

Read the publication and view the video *Equal Access: Universal Design of Computer Labs* at www.uw.edu/doit/Video/equal.html.

Read *Equal Access: Universal Design of Libraries* at www.uw.edu/doit/Brochures/Academics/equal_access_lib.html.

What are examples of policies for procuring, using, and developing accessible technology?

Read *Policy Governing World Wide Web Accessibility at UW - Madison* at www.wisc.edu/policies/wwwap.php.

Read the *Ohio State University Web Accessibility Policy* at ada.osu.edu/resources/webaccessibilitypolicy.pdf.

Read *The Goal: Making University of Washington Web Sites Accessible to Everyone* at www.uw.edu/computing/accessible/.

Read *Central Michigan University Web Policy* at www.cmich.edu/web-policy/Pages/default.aspx.

Read *Implementation Plan for Web Accessibility* at www.w3.org/WAI/EO/Drafts/impl/.

Read *Accessible Web Design Policy Statements and Standards* at www.uw.edu/computing/accessible/resources.html.

Read *Oregon State University Information Technology Accessibility* at oregonstate.edu/accessibility/ITaccess.

Read *Library Services for People with Disabilities Policy* at www.ala.org/ascla/asclaissues/libraryservices/.



Where can I find training and support regarding accessible technology, legal issues, and resources?

Good places to start include the following:
Technology and Universal Design at www.uw.edu/doit/Resources/technology.html.

Equal Access to Software and Information at people.rit.edu/easi/.

AccessIT: The National Center on Accessible Information Technology in Education at www.uw.edu/accessit/.

IT Access for Persons with Disabilities at www.gsa.gov/portal/content/104530.



Additional Resources

For further information regarding accessible technology, consult www.uw.edu/doit/Resources/technology.html. To order videos in DVD format from DO-IT, consult www.uw.edu/doit/Brochures/Order/video.order.html. To view video presentations online, consult www.uw.edu/doit/Video/.

The specific DO-IT videos *Computer Access: In Our Own Words* and *Access to Technology in the Workplace: In Our Own Words* reinforce the basic content of this publication by sharing access challenges and solutions of individuals with disabilities. In the first presentation, you will hear the perspective of high school and college students with disabilities. In the second presentation, you will hear from employees.

About DO-IT

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

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