



Building Accessible E-Learning Collaboratively

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Definition of Accessibility

- Universities must provide equal access to educational opportunities for “otherwise qualified” students. An otherwise qualified student is one who meets the academic and technical standards requisite for admission or participation.
- The course-taking experience for students with disabilities must be equivalent to that of other students.
- Accommodations should be planned at the beginning of online course development rather than on an ad hoc basis once a student enrolls in the course.



E-Learning Accessibility

- The learning management system (LMS) courseware
- Course web pages / links to other web pages
- Digital course contents (whether self-created or inherited / adapted): presentations, slideshows, documents, PDFs, graphics and images, audiovisual content, chat, and others



Some User Tools for Accessing E-Learning

- Text-to-speech screen readers (third-party or embedded in browsers)
- Screen enlargement
- Speech-to-text or voice recognition
- Sign language interpreters
- Transcripts / captioning
- Braille keyboards
- Non-keyboard input devices



Definition of Universal Design

- Universal design refers to the design of products and environments to be usable by all to the greatest extent possible, without the extra need for adaptation or specialized design.
- This concept is balanced against special accommodations for learners with varying needs.
- This approach supports user / learner-centered design.



The Seven Principles of Universal Design

1. **Equitable Use:** The design is useful and marketable to people with diverse abilities.
2. **Flexibility in Use:** The design accommodates a wide range of individual preferences and abilities.
3. **Simplicity and Intuitive Use:** The use of the design is easy to understand, regardless of the user's experience, knowledge, language skills or current concentration level.
4. **Perceptible Information:** The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.



The Seven Principles of Universal Design (cont.)

- 5. Tolerance for Error:** The design minimizes hazards and the adverse consequences of accidental or unintended effects.

- 6. Low Physical Effort:** The design can be used efficiently and comfortably, with a minimum of fatigue.
- 7. Size and Space for Approach and Use:** Appropriate size and space are provided for the approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility.



Environmental Scan/ Authorizing Enviro

General

- Admin—who supported the new online course accessibility policy
- Faculty—who voted in the new online course accessibility policy in 2007
- Staff—who will support the development of accessible e-learning
- Students—who will use the accessible e-learning / who will support the accessible e-learning



Environmental Scan/ Authorizing Enviro (cont.)

Offices

- Disability Support Services (DSS)—for some technological strategies
- Office of Mediated Education (OME)—for some pedagogical design and technology strategies
- Information Technology Assistance Center (iTAC)—for support with the LMS and some authoring tools



Potential Resources

- University websites
- Online course shells and modules
- Professional transcription and captioning businesses
- DSS, OME, iTAC
- Graduate and undergraduate students (for transcription, captioning and digital materials development)



Project Objectives

- Raising campus awareness in an applied and specific way
- Providing “DIY” (do-it-yourself) support for faculty
- Helping faculty and graduate students maximize their use of accessibility mitigations in various authoring tools
- Encouraging the planning and documentation of proper costs into budgets / grant applications for transcription, timed text captioning, and other accessibility endeavors



Current Strategies

- A unified voice and understanding of policies (DSS)
- Forthcoming presentations and workshops (DSS)
- A tip sheet (DSS and OME)
- An online learning module about accessibility with modeling (OME)
- A brief introductory video about accessibility (DSS and OME)
- Informative downloadable worksheets on accessibility (iTAC)



Technological Affordances

- A Forthcoming Adobe Flash™ Feature
<http://www.beet.tv/2008/07/huge-adobe-read.html>
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Initial Plans

- A tip sheet for faculty on the basic points on how to make a course accessible
- An online delivered module with automated learning for the accessibility issues
- Informative websites such as K-Access



Ten Tips for Faculty

1. Use course file types in **universal product formats**.
2. Ensure that **text documents are not just digital image** graphics.
3. Use **tags used for document structure and markup**.
4. Use **clear, simple English**.
5. Label informational graphics. **Transcribe and label** audio and video.



Ten Tips for Faculty (cont.)

6. Make **accessible PowerPoint™** slideshows.
7. Use **color in an accessible way**.
8. Summarize and **label data tables**.
9. **Plan live online events** to be accessible.
10. Support **user control of automations** and sequenced actions, as much as possible.



E-Learning Course Accessibility Module

- Part of the Online Teaching, Design and Development (OTDD) course
- Potentially stand-alone at some point with DSS-vetting
- Current Modules: (developed)
 1. Accessibility Slideshows
 2. ...And Accessibility Series
 3. Accessible Samples
 4. Accessibility Resources
 5. Accessibility Module Information



Module I. Accessibility Slideshows

- Why Accessibility?
- Types of Disabilities (in the Context of E-Learning)
- What is Universal Design?
- Accessibility Laws and Compliance Models
- Authoring Tools for Accessibility
- User Tools for Accessibility
- Initial Course Planning and Development for Accessibility
- Making an Online Course Accessible



Module I. Accessibility Slideshows

(cont.)

- **Retrofitting an Existing Course for Accessibility**
- **Making Live (Synchronous) Events Accessible**
- **The Future of Accessibility**



Module 2. ...And Accessibility Series

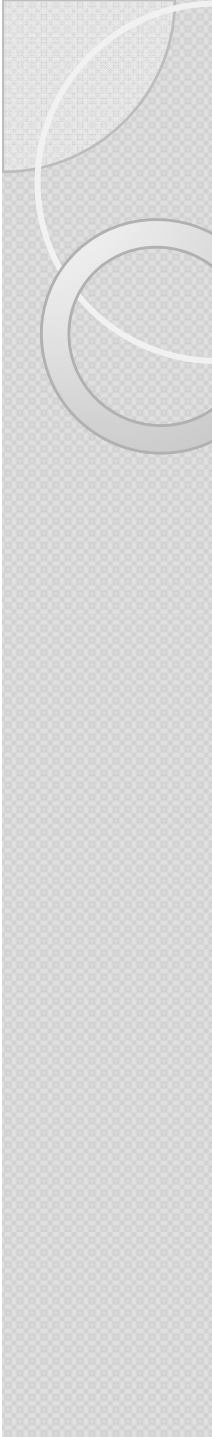
- Color and Accessibility
- Audio Files and Accessibility
- Graphics and Accessibility

- Slideshows and Accessibility
- Video Files and Accessibility
- Data Tables and Accessibility
- Hypermedia and Accessibility
- Automation, User Control and Accessibility



Module 3. Accessible Samples

- Images with alt texts
- Annotated slideshows
- Animated screencasts
- Audio
- Video
- Live modules of fully-accessible courses



Module 4. Accessibility Resources (in the Archives)

- URL Resources for Online Course Accessibility
- Legal Links for Online Course Accessibility
- Checklists for Online Course Accessibility
- Automated 'Bots List for Accessibility Testing
- Policy Regulations for K-State



Module 5. Accessibility Module Information

- The Story behind the Course Accessibility Module
 - Credits and Copyright Releases
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Future Planning

- New technology mitigations
- New pedagogical accessibility strategies
- New organizations that may be outsourced to?

Allies

- **Disability Support Services** (for students, faculty and staff)

785-532-6441

http://www.k-state.edu/dss/k-access/getting_started.html

http://www.k-state.edu/dss/k-access/how_do_i.htm

- **Office of Mediated Education** (for faculty)

785-532-5698

<http://ome.ksu.edu/services/id/>

- **Information Technology Assistance Center (iTAC) Help Desk** (for students and faculty)

785-532-7722

<http://www.k-state.edu/infotech/helpdesk/services.html>



Some Accessibility Laws and Policies

- [Americans with Disabilities Act / Section 508](#)
- [Course Accessibility Standards Policy F125](#)
(at K-State)

- [Kansas Information Technology Policy 1210](#)

Contact and Conclusion

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Online Teaching
Design and Development
by Axiom Learning



DISABILITY SUPPORT SERVICES
Kansas State University



K-ACCESS
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