The First Steps to Successful Online Teaching for Students with Disabilities

CTEL Spring 2014 Accessibility Series
Part 2
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Objectives

• Participants will understand:
  o Support available for USM’s online students with disabilities.
  o How students with varied abilities access online course components and materials.
  o Where to find basic information about product accessibility.
USM’s Online Students Need Services, Too
Designing for Variability

• Learners access, process, and communicate information in varied ways. Some of this variability is due to differences in:
  o Sensory abilities.
    • Seeing, hearing.
  o Physical abilities.
    • Motor skills.
  o Learning and cognitive abilities.
    • Visual-spatial, visual-verbal, language and phonological processing.
Assistive Technology (AT)

“…any item, piece of equipment, or product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.”

- 29 U.S.C. Sec 2202(2)

(A device, software program, or app that helps an individual to accomplish a task that would otherwise be impossible.)
Online Learner #1

- Joe prefers online learning because it provides him more flexibility than a regularly scheduled face-to-face class. A car accident six months ago resulted in severe fatigue and permanent gross and fine motor challenges for Joe.
Online Learner #1

- Joe prefers online learning because it provides him more flexibility than a regularly scheduled face-to-face class. A car accident six months ago caused Joe’s severe fatigue and permanent gross and fine motor challenges.

- As Joe’s instructor, what general online learning requirements, tools, or activities will pose potential barriers to his success?
Keyboarding Access: Switch Scanning

This is a sample sentence.
iPad Access: Switch Scanning
Blackboard and Switch Accessibility

• “The default mode of the product does not require the user to have fine motor control.”
  ○ Blackboard VPAT Section 1194.31 (Jan, 2013).
Moodle and Switch Accessibility

- “Most aspects are keyboard only accessible (exceptions are text editors and automated drop down menu selections).”
  - Open University working group on Version 1.7 (2006).
Google and Switch Accessibility

- “Supports with exceptions.”
Voluntary Product Accessibility Template

- VPAT
- Self-assessment document for product developers
- Based on federal technical standards for accessibility
- Center on Online Learning and Students with Disabilities
  - “A Purposeful Sampling of Technologies”
Online Learner #2

• Aria is a young, full-time working mom taking an online course for the convenience of completing assignments at work or at home. A specific learning disability interferes with her reading fluency and comprehension.

• As Aria’s instructor, what general online learning requirements, tools, or activities will pose potential barriers to her success?
Access to Required Texts

• Accessible material in digital text format.
  o Word processed files.
  o PDF files that are digital text vs. images of text.
  o Web sites that are digital text vs. images of text.

• Digital text can be:
  o Read aloud by text to speech.
  o Formatted and customized for user preferences.
  o Copied and pasted to user’s application of choice.
Access to Required Texts: Text to Speech

• “Alex” from Mac OS X: Text to speech software reads aloud digital text on a screen. Text to speech is included in Windows and Mac operating systems, as well as iOS devices. Specialized versions can be purchased commercially.
Standard Print Books in Alternative Formats

• Specialized formats:
  o Digital text.
  o Audio.
  o Large print.
  o Braille.

• For exclusive use by students with “print disabilities.”
“Print Disability”

• “Condition related to blindness, visual impairment, specific learning disability, or other physical disability in which the students needs an alternate or specialized format in order to access and gain information from conventional printed materials.”

• Copyright Law Amendment, 1996 (“Chafee Amendment”).
Bookshare: Digital Text

An Accessible Online Library for people with print disabilities

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Online Learner #3

• Patrick is a first year student, transitioning from K-12 services that provided school-based ASL interpreters. He’s taking an online course because he assumes it will be text-based and, therefore, allow him to avoid the need for a classroom interpreter.

• As Patrick’s instructor, what general online learning requirements, tools, or activities will pose potential barriers to his success?
# Access to Online Audio: Text Transcripts

## Astronomy: Frontiers and Controversies

Charles Bailyn

### Description

This course focuses on three particularly interesting areas of astronomy that are advancing very rapidly: Extra-Solar Planets, Black Holes, and Dark Energy. Particular attention is paid to current projects that promise to improve our understanding significantly over the next few years. The course explores not just what is known, but what is currently not known, and how astronomers are going about trying to find out.

This Yale College course, taught on campus twice per week for 50 minutes, was recorded for Open Yale Courses in Spring 2007.

### Course Outline

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<th>I. Introduction</th>
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<td>II. Planetary Orbits</td>
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<td>III. Our Solar System and the Pluto Problem</td>
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<td>IV. Discovering Exoplanets: Hot Jupiters</td>
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Access to Online Video: Closed Captions

Though the economy might seem complex, it works in a simple, mechanical way.

How The Economic Machine Works by Ray Dalio
Captioning Your Own Video

- Common “caption-able” players:
  - YouTube.
  - Amara.
  - Camtasia.
  - iTunes.
  - QuickTime.
  - RealPlayer.
  - JW Player.
Access to Web Conferences: CART

TEACH Act

  - Jointly drafted by the National Federation of the Blind (NFB) and the Association of American Publishers (AAP).
  - Implements the first recommendation of the AIM Commission report.
    - Directs the Access Board to develop accessibility guidelines and the DOJ to adopt those guidelines as enforceable standards.
Online Learner #4

• Nicole is an aspiring web designer. With informal training and the support of her AT, she has accomplished an impressive portfolio of websites. She’s concerned, however, about being an online student with low vision.

• As Nicole’s instructor, what general online learning requirements, tools, or activities will pose potential barriers to her success?
Screen Reader On Moodle

Moodle Accessibility Test - MSU
VoiceOver on iPad

When you first launch VoiceOver there are two ways of navigating through, in this example,
Accessible Documents

• Just add a little technical know-how:
  o Styles
  o Font
  o Contrast
  o Images
  o Hyperlinks
  o Lists
  o Tables

• Come back for part 3 of this series (Thu, Feb 13)!

Arial

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Summary

• USM’s online students need to be reminded of the services available to them.
• Students with varied abilities access and process digital content using diverse technologies.
• Resources for determining the accessibility of educational products are emerging.
Thank You!

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