MANAGING ONLINE ACCESSIBILITY:
A TALE OF TWO INSTITUTIONS

John Raible
Instructional Designer
Center for Distributed Learning

Julie Uranis, Ph.D.
Director, Distance Learning
Division of Extended Learning & Outreach

University of Central Florida
WKU
Agenda

• Environment of Each Institution

• Workflows of Each Design Team

• Creative Solutions from Each Institution
WKU ENVIRONMENT
WKU Statistics – Fall 2016

• Total WKU Enrollment: 20,000+

• 1700+ online & personalized learning courses offered annually

• 75+ online certificate and degree programs

• 6600+ students enrolled in online courses, 2400+ are exclusively online

• Instructional Designers & Technologists: 4
  Instructional Design Support Specialists: 4
  Student Workers: 14 (on average) and 2 GAs
WKU Accessibility Policies and Guidelines

- Policies and Procedures for Employees and Students
  - Institutional Policies
    - Student Disability Accommodations/ Section 504 and ADA Compliance
    - Student Accessibility Resource Center Course Substitution Request Policy
  - Guidelines and Best Practices
    - Syllabus Statement
    - Reasonable Accommodations Guidelines
    - Online Reporting of ADA Issues
    - Guidelines for Personal Attendants and Service Animals
    - University-Wide Compliance Program
    - Web Accessibility for all WKU Websites
  - Online-Specific Documents
    - Implementation Plan for Accessibility in Online Learning
    - Annual DL Accessibility Report
    - Accessibility in Online Courses
    - Best Practices for Bb and DL Course Content
- DL Director on WKU ADA Compliance Committee
- Faculty are responsible for developing online course content.
Relationship with Student Accessibility Resource Center (SARC)

- Online course accommodation workflow:
  - SARC notify faculty of SWD in all courses & recommended accommodations
  - DL provides assistance with accommodations for online courses
UCF ENVIRONMENT
UCF Stats Fall 2016

- Total Enrollment: 64,209
- Sections offered: 7,066
- Faculty: 2054
- 69.39% are taking at least one online course this semester
UCF SAS Registered Stats

Headcount – Fall 2016
University Headcount: 64209

- General: 62488 (97.32%)
- SWD: 1721 (2.68%)
UCF SAS Registered Stats

Sections – Fall 2016

Course Sections: 7066

- **General**: 4270 (60.43%)
- **SWD**: 2796 (39.57%)
UCF SAS Registered Stats

Faculty - Fall 2016

Faculty: 2054

SWD: 1462 (71.18%)

General: 592 (28.82%)
UCF SAS Registered Stats

Modality Breakdown – Fall 2016

Course Sections: 2796

- **P**: 1985 (70.99%)
- **WW**: 450 (16.09%)
- **M**: 298 (10.66%)
- **V**: 9 (0.32%)
- **RV**: 54 (1.93%)
UCF Policy

- No institutional accessibility policy
  - Provost e-mail
  - Syllabus statement

- Professional development is mandatory to teach online.

- Faculty are responsible for developing online course content.
Relationship with SAS

- Frequent status/planning meetings
- Joint professional development efforts
- Online course accommodation workflow:
  - SAS notify faculty of SWD in all courses
  - CDL provides assistance with D/HH and B/LV accommodations for online courses
WKU WORK FLOW
Implementation Plan

Implementation Plan for Accessibility of Online Learning  
Western Kentucky University  
September 2014

Introduction

Since accessibility of online learning is a process, assessment of the process is the most appropriate tool to evaluate the effectiveness of WKU’s implementation of our policy on ADA/Section 508 accessibility.

Online learning runs a continuum from technology-assisted face-to-face instruction to 100% online instruction with no instructor-student face-to-face interaction – what we typically refer to as distance learning. In all cases of online learning, technology is critical to facilitating communication and interaction to promote teaching presence, social presence, and cognitive presence in learning.

http://www.wku.edu/dlfaculty/compliance/accessibility/accessibility_of_online_learning_plan.pdf
Resources

Distance Learning Faculty - Accessibility

Accessibility Best Practices for Online Courses

Introduction to Accessibility
At Western Kentucky University, we are committed to making online courses available to the widest possible audience, including those with visual and hearing impairments, learning disabilities, color blindness, or neurological disorders. Ensuring a quality learning experience for all learners can be easier than you think. Remember. We are always here to help you. Following are some resources to help you get started.

Course Content on Blackboard
Creating Accessible Blackboard Content provides specific requirements of accessibility and how-to guides when creating online content in Blackboard. Other guides below will address accessibility in materials uploaded to Blackboard.

Audio and Video in Your Course
Written transcripts or closed captions for audio or video materials help those with hearing impairments perceive the information. Distance Learning’s transcribing services will work to ensure course related videos are transcribed. However, our transcribers are limited, so courses with students who need an accommodation are given a priority designation. If you have been notified by Student Disability Services that a currently enrolled student is in need of special accommodations, please go to Transcribing Services web page and fill out the priority request form and submit the transcribing request.

Providing Accessible Documents
The most common documents you will use are Word documents, PowerPoints, and PDFs, but all documents you use in your courses will need to be reviewed to ensure they are accessible.

Microsoft Word

http://www.wku.edu/dlfaculty/compliance/accessibility/
Changing culture - $$$

- 85% accessibility achieved prior to development/revision compensation
- Changed philosophy on development/revision compensation
Accessibility Workflow: Development

Course Status - MOA yes Semester and On Demand

ID Assigned ADA GA given info Dates for prelim and final reviews set On Demand dates determined

Course access requested

If access delayed-contact Sr. ID

0 accessibility issues. No intervention-faculty notified of results.

Prelim review complete -GA reviews report -Report to ID

Any accessibility issues. ID contacts faculty with recommended changes and plan of correction

Response? Remedial action? ADA course?

Final review complete- final review START last 2 to 3 weeks and prior to payroll entry - all content areas - % based on # items and # pages

Faculty completes/has completed official ADA course. Can occur anytime in process

NOA completion

Less than full semester - only 1 review - as soon as possible

List of NOA courses to Transcriber team

Requests from Student Accessibility Resource Services can enter at any stage and take priority over all others.

>85% accessible - faculty notified of results and any recommended changes.

<85% accessible - ID notifies faculty and Sr. ID with results and recommended changes.
Course Captioning and Transcribing

- List of MOA courses to Transcriber team
  - List of Instructional Tech
  - ADA GA

  - Email to faculty to:
    - Inform of transcribing
    - Confirm continued use of videos

  - Check course for non-Tegrity videos and obtain links

  - Student transcribers assigned to courses
    - URL to Mp3 recordings
    - URLs to other (e.g. YouTube) recordings

  - Completed Tegrity transcripts to student captioners
    - Upload to YouTube to obtain formatted time-stamped transcript
    - Tegrity videos - uploaded as captions, timing verified (cc) added to name
    - Record video source course, faculty, # videos, # minutes

  - Transcripts for other videos to ADA GA
    - Added to course as transcript (or cc if possible)

- Transcription software/web pedals
  - New in-house system displays URLs in priority order
  - Will soon allow transcribing to be done within the system
  - System will record source, transcriber ID, time data
  - Notifications

- Transcribing/Captioning Hierarchy
  - Courses with students who need accommodation
  - Courses undergoing QM review
  - On Demand courses
  - Semester courses with MOA
  - All others and as requested

Transcription requests (online or classroom) from Student Accessibility Resource Services can enter at any stage and take priority over all others.
UCF WORK FLOW
Accessibility at UCF
Immediate Need

• For current courses with D/HH and B/LV students

• Faculty complete a questionnaire about course

• CDL staff conduct accessibility audit using UDOIT

• Various CDL teams work with faculty to address issues
  • For D/HH, SAS provides transcripts of videos
  • CDL creates captions
WKU CREATIVE SOLUTION
Database for DL team activities & workflows

Welcome to Distance Learning!

Click on a tile below to navigate the site.
### ADA Review Report for MOA: 16 SP

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Faculty</th>
<th>Initial Review Results</th>
<th>Final Review Results</th>
<th>Remedial Review Results</th>
<th>Course Upload</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD 110</td>
<td>Advertising in a Digital World</td>
<td></td>
<td>Review Completed</td>
<td>Did not meet ADA requirements</td>
<td>Met ADA requirements [1]</td>
<td>Course Upload</td>
</tr>
<tr>
<td>RH 110</td>
<td>Medical Terminology</td>
<td></td>
<td>Review Completed</td>
<td>Did not meet ADA requirements</td>
<td>Met ADA requirements [2]</td>
<td>Course Upload</td>
</tr>
<tr>
<td>AMB 110</td>
<td>Senior Research</td>
<td></td>
<td>Review Completed</td>
<td>Met ADA requirements [1]</td>
<td>Review not yet registered</td>
<td>Course Upload</td>
</tr>
<tr>
<td>BIOL 210</td>
<td>Behavioral Ecology</td>
<td></td>
<td>Review Completed</td>
<td>Met ADA requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS 2700</td>
<td>Management Human Resources</td>
<td></td>
<td>Review Completed</td>
<td>Did not meet ADA requirements</td>
<td>Met ADA requirements [2]</td>
<td></td>
</tr>
</tbody>
</table>
Database to house accessibility data
Informing Faculty

- **Learning Modules**
  - **Learning Module Week 1/25/16**
    - **Reimagining Advertising in a Digital World**
      - How to create Measurable Marketing Plan: Use the PESO Model
        - Penso.png - Provide detailed alt text description for the image so that someone relying on a screen reader can hear a detailed description of the image to learn what it “says” and why it’s important to the course. Since this is an image, consider making a Word document that writes out the alt text description.
    - **The Brand Spiral and the Branding Blueprint**
      - **The Branding Spiral**
        - Branding spiral PDF 1/1
          - Provide detailed alt text description for the image. Since this is an image, consider making a Word document that writes out the alt text description.
  - **Learning Module Week 2/1/16**
    - **Digital Branding**
      - **Build a Personal Brand: It’s Your Only Option**
        - Website URLs need to be descriptive text instead of the website/URL address.
    - **Basics of Brand-You**
      - **Steps in personal branding**
        - Website URLs need to be descriptive text instead of the website/URL address.
Transcription Services – DL Staff

This page holds a list of priority recordings. They need to be completed as soon as possible.

Available Filtering

Click here to disable the modify status/priority prompt.

<table>
<thead>
<tr>
<th>Course</th>
<th>Priority</th>
<th>Active</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) CIS 243</td>
<td></td>
<td></td>
<td>(+)</td>
</tr>
<tr>
<td>(2) Dawn Hall sandbox course</td>
<td></td>
<td></td>
<td>(+)</td>
</tr>
<tr>
<td>(3) PS 400</td>
<td></td>
<td></td>
<td>(+)</td>
</tr>
</tbody>
</table>
Hi, in this lecture, we are going to be giving the basic introduction to the RNA structure and function. To begin, we will talk a little bit about the levels of organization of RNA and the energetics involved in forming RNA structures. And we will also review RNA types and functions and those being genetic information storage, rRNA and structural, catalytic and regulatory roles. As of proteins, RNA can form higher order structures of course in the primary structure, the primary sequence that consists of the sequence of the nucleotide held together by a phosphodiester bond. And the secondary and higher order structures as tertiary non-covalent bonds come in to play. Those include hydrogen bonds and other interactions as such as Van der Waals interactions. Base stacking ah is an important component that is, cause that allows additional hydrogen bonding between the bases. On this slide, we see an example of a primary structure that is simply the sequence of the nucleotides because an internal areas of complementarity in an RNA, we know that RNA can fold up in to more ah higher order structures as the secondary structures shown here. Higher order structures can be formed between different areas of RNA molecule and an example of that is shown in the stick, a ball stick field representation shown in the white. It's important to appreciate that in RNA, that we have ah the canonical base pairing rules apply but we have additional rules because in fact that T is replaced with Uracil. So, the fact that uracil gives additional binding properties that are available to an RNA molecule. Of course, you have G-C base, G-C base pairing but ah you have A-U. Ah that is U replacing T. And that is a, that is a part of the normal Watson-Crick base pairing but you also have the possibility of G-U pairing ah and so these variance allow additional base pairing possibilities. Its also important to appreciate that nucleic acid in the RNA is frequently modified. And this is particularly true with T-RNA molecules and ah this can allow ah additional levels of interaction to occur. So, in the common structure in Ts RNA are shown in this slide. We had helices where ah you have base pair interactions ah leading to ah the stems as they are also referred to and the base paring here allows the stems to naturally adapt the helix type of structure of the DNA helix. Ah also have loops at the end of the helices and this is an example loop, a hairpin loop. You have internal loops shown here where you have unbase paired regions on each side of the stem. You have bulges down here, we have seen an example of a bulged loop where you have unpaired bases on one side of the stem but not the other. So, that is kind of bulged out and you ah there are more complicated structures and multi-branched loops, multi unpaired regions ah in a stem and then another unpaired region is coming off of this. So, these are some of the examples of RNA structural motifs in which you should be aware of and should be able to describe and identify within any
This is lecture for spinal cord injury. I am going to break this down into 3 parts. This first section will be on classification, mechanism of injury, and some terminology. The first line here are just topics that we are going to be covering throughout the whole lecture on spinal cord. When you think about what is going to be on the test, I put what will be on the test, this is not necessarily what is on the test, but if you keep in mind that you recognize that a patient has had a spinal cord injury, you know how to do your assessment, you know what to expect based on their level of injury, you know how to position the patient, what to do for them, nursing wise, and how these injuries are handled medically and what kind of complications. Same thing with any kind of disease process or injury. Just a little bit about statistics on the spinal cord trauma usually from motor vehicle accidents it can be from falling injuries, gun shot wounds, stabings, that type of things, sports injuries, common disease spinal cord injury in sports, diving accidents, diving into a pool, I guess you could say skydiving as well because there have been injuries from those, falls and then disease processes. Today most of the things that we talk about are related to cervical spine injuries because more than half of spinal cord injuries involve some cervical spine. This is just a slide on terminology that we are going to be using throughout the lecture, you all should know what hyper flexion hyperextension... neurogenic shock, I am sure you talked about that in shock lecture, we are going to talk more about that and final shock, paraplegia and tetraplegia, tetraplegia is a term more used for quadriplegia meaning all four extremities. Hypoesthesia and hyperesthesia sort of be familiar with that autonomic disperplexia, we are going to talk about that is one of the complications of spinal cord injury, you know what phoresis means, and then I want to add here about sympathetic and parasympathetic nervous system. Spinal cord injuries involve the autonomic nervous system. If you remember though, sympathetic nervous system...
Transcription Database Reports

- Filtering
- Alternate Views
- Calculations
- Overview
Personnel

- Instructional Designers (3)
  - Blackboard content
  - Manage student reviewers
  - Direct faculty contact – individual instruction, shares reports
- Instructional Technologist (1)
  - Video/audio content
  - Manages student transcribers and captioners
  - Develop transcribing software system
- ADA Graduate Assistants (2)
  - Tracking and data collection
  - Assists in reviews and transcription
- Student workers (12-14)
  - Review courses
  - Transcribe
  - Caption
Executive Information System (EIS)

- Add accessibility information to existing reporting system
- SAS provided access to data in Peoplesoft (SIS)
- Paired enrollment, faculty records, student disability/accommodation information
- Ability to generate charts/graphs and track over time
- Efficient and secure transfer of sensitive information
Optical Character Recognition (OCR)

- Fall 2015: Slammed with image based PDF
- Spring 2016 Pilot of ABBYY Recognition Server
- Under consideration for purchase

Goal is to create a semi autonomous OCR workflow:
- Scan LMS courses of SWD
- Find PDF(s)
- Send to ABBYY
- Manually QA PDF from ABBYY
- Replace in LMS
Captioning

• Contracted with 3Play media to caption existing online course videos hosted on Vimeo. Paid by DL fee.

• Used Vimeo API to check for captions, calculate length of video, download, and upload caption track

• Bulk upload to 3play via FTP

• Download text transcripts, captions in .SRT and .VTT

• Upload captions to Vimeo via API.
Quiz Extensions

• One stop shop to add more time to all existing quizzes/tests

• Custom LTI developed for Canvas

• Pilot Spring 2016, launched Summer 2016

• Overwhelming positive faculty response

• Licensing available (free to public institutions): f@ucf.edu
Quiz Extensions

This tool will apply extra time to all existing quizzes/exams. For example, Suzy Johnson and Stephen Smith need double time. Select the students below and choose the appropriate amount of extra time e.g., double (2x).

If additional quizzes/exams are added after, please repeat the process. This will replace any individual existing time extensions. Additional help can be found at the Webcourses@UCF Support website.

<table>
<thead>
<tr>
<th>Student Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auricchio, Alyssa</td>
</tr>
<tr>
<td>Bethencourt, Stephanie</td>
</tr>
<tr>
<td>Bloom, Caldon</td>
</tr>
<tr>
<td>Bunker, Madelynn</td>
</tr>
<tr>
<td>Carter, Alison</td>
</tr>
<tr>
<td>Casey, Kenya</td>
</tr>
<tr>
<td>Cobbs, T'Cherish</td>
</tr>
<tr>
<td>Dalton, Langlie</td>
</tr>
<tr>
<td>Desalvo, Anna</td>
</tr>
<tr>
<td>Eliason, Alyson</td>
</tr>
</tbody>
</table>

Selected Students

Submit

University of Central Florida | Center for Distributed Learning | 2016
Able Player

- Issue: providing captions for 3\textsuperscript{rd} party YouTube videos

- Solution: adapted open source video player player to work inside of LMS (Canvas)

- Manual process with code. Work on LTI.

- Caption file hosted on central server and linked to video.

- Able Player: https://github.com/ableplayer/ableplayer
able

Back To The Future 2

Kid: its a video game!
UDOIT

• Scans a course and generates a report of accessibility issues

• UFIXIT: provides an ease way for faculty to correct common accessibility errors

• Released open-source May 2015

• Only works for Instructure Canvas

• http://online.ucf.edu/udoit
Resources

- WKU
  - Accessibility Tips
  - Transcription Service Request Page
  - ADA Checklist

- UCF
  - Creating Accessible Course Content
  - OLC Journal Article
Contact Information

Julie Uranis: julie.uranis@wku.edu

John Raible: john.raible@ucf.edu

Presentation available at update