



# Designing accessible online course materials

CEITL Summer talk about teaching series  
June 11, 2020

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# Workshop Overview:

- ▶ Building an accessible content framework for creating and selecting course materials
- ▶ Searchable documents and PDF's. How-to and why it matters
- ▶ Best strategies for video captioning success
- ▶ How multiple formats can help minimize screen fatigue, address network limitations, and support individual learning strengths

# Accessibility v. Accommodations

- ▶ **Accessibility** -- allows a broad continuum of users with/without disabilities to access course materials and activities. Students with diverse needs may participate outright.  
(i.e. No one is *restricted* from using curb cuts and automatic door openers, yet it *meets the needs* of individuals whose mobility may be affected such as a person using a wheelchair.)
- ▶ **Accommodations** --are provided to address that which is not accessible.

# What does accessibility mean?

A person with a disability is afforded the opportunity to:

- ▶ acquire the same information,
- ▶ engage in the same interactions,
- ▶ and enjoy the same services

as a person without a disability

- ▶ in an equally effective,
- ▶ equally integrated manner,
- ▶ with substantially equivalent ease of use.

A person with a disability must be able to obtain the information

- ▶ as fully,
- ▶ equally,
- ▶ and independently
- ▶ as a person without a disability.

*(Reformatted from Resolution Agreement South Carolina Technical College System, OCR Compliance Review No. 11-11-6002, Feb. 2013)*



## Consider the following when designing course materials and activities: “What If” .....

- ▶ a person has no vision, limited vision or is color blind?
- ▶ a person has limited hearing, is deaf (or has another language barrier, i.e. ESL)?
- ▶ a person has a mobility impairment that impacts dexterity and the ability to use a keyboard/mouse, kiosk/touchscreen or hold a book, program, menu, etc.?
- ▶ a person has a cognitive impairment (including reading/processing) that make it difficult to understand complex or technical language, remember or follow a multiple step process, or navigate a busy “cluttered” website or PowerPoint or printed poster/flyer/brochure?

# What is a “print disability”

- ➔ **Functional definition--** “A condition related to blindness, visual impairment, specific learning disability or other physical condition in which the student needs an alternative or specialized format in order to access and gain information from conventional printed materials.” (i.e., Braille, large print, audio, digital text)

[Maine AIM Community of Practice](#)

k-4<sup>th</sup> grade → we “learn to read”

5<sup>th</sup> grade + → we “read to learn”

# What is “reading”?

Information delivery in education is still very **“print” based!!!**  
However, “digital text” allows the end-user/student to decide how best to engage with the content (braille, audio, magnification).

- ▶ “Eye reading” —scanning words on the printed page.
- ▶ “Finger reading” – braille, tactile access to words on the page.
- ▶ “Ear reading” – audio books and text-to-speech



# Dyslexic Reading simulation:

- ▶ Read the following paragraphs as best you can and be prepared to answer 2 questions about the reading.
- ▶ Note: The simulation demonstrates some common dyslexic symptoms. The letters in this paragraph are reversed, inverted, transposed and spelling is inconsistent.

"Would a text-only sight be ideal for someone with a reading disorder? Harbelle. Images are not bad for accessibility. They actually increase comprehension and usability for most audiences.

What way people do not know, though, is that it is much more about the accessibility for an image than just its alt text. Some people wrongly assume that images are bad for accessibility, since alt text essentially replaces the image with a text-only version of that image."

by Paul Bohwau



# Questions about the reading:

- 1) Why are images good for Web accessibility?
- 2) Who would be negatively impacted by a text-only site?



## The Unmodified Paragraph

"Would a text-only site be ideal for someone with a reading disorder? Hardly. Images are not bad for accessibility. They actually increase comprehension and usability for most audiences.

What many people do not know, though, is there is much more to the accessibility of an image than just its alt text. Some people wrongly assume that images are bad for accessibility, since alt text essentially replaces the image with a text-only version of that image."

by Paul Bohman

# Text-to-Speech Demonstration

## Read&Write PDF Aloud



texthelp

Meets the needs of many departments:

- ESL / international
- athletics
- freshman 101 courses
- distance learning
- veterans
- faculty
- struggling writers
- placement testing
- retention

The screenshot shows a purple-themed interface for 'texthelp'. At the top left is the 'texthelp' logo. Below it, the text 'Meets the needs of many departments:' is displayed. A central graphic features a grid of icons, each with a label below it: 'ESL / international' (with a person icon), 'athletics' (with a runner icon), 'freshman 101 courses' (with a building icon), 'distance learning' (with a house icon), 'veterans' (with a star icon), 'faculty' (with a group of people icon), 'struggling writers' (with a quill icon), 'placement testing' (with a monitor icon), and 'retention' (with a circular arrow icon). The background of the graphic is a faint image of a computer monitor displaying a document.

# Text-to-Speech Demonstration

## iOS Speak Screen



How to  
**Follow along**  
**while your**  
**device reads**





# Text-to-speech tools and apps:

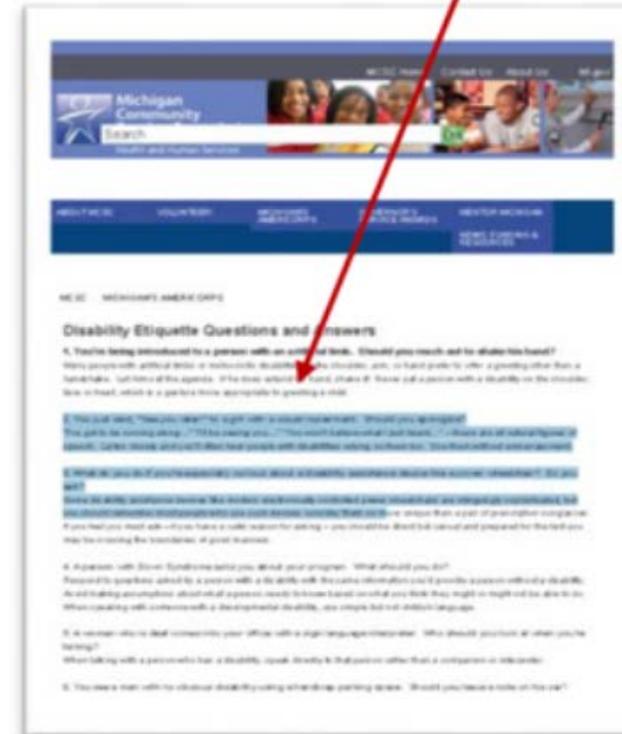
- ▶ UNH has a site license --any faculty/staff/student can download to their personal computer (Win/Mac)  
<http://www.unh.edu/sas/readwrite>
- ▶ Built-in to operating systems:
  - ▶ Windows OS, Mac OS, iOS devices/phones, Android devices/phones
- ▶ Voice Dream Reader iPad app:
  - ▶ Allows the user to customize the font size, spacing, color to find an optimal view for maximize fluency and speed.
- ▶ More info at: <http://www.unh.edu/sas/apps>

# Good vs. Bad PDF's

This was a scanned printed webpage. Note you cannot select text in the document.



This was saved as a PDF from the webpage and the text is selectable /searchable.





# PDF Best Practices:

- ▶ **Find a searchable PDF file**  
(utilize UNH Library databases and resources)
- ▶ **If you need to Scan from a print copy or book:**
  - ▶ Avoid color scanning (b/w or grayscale is best)
  - ▶ 300 dpi (can be set on the copier/scanner)
  - ▶ Avoid 2-page scans
  - ▶ Avoid scanning content with highlighting, underlining, margin notes, etc.
- ▶ **Quality of Text Recognition is DEPENDENT on source image quality**

# If your PDF's look like this – Replace them



## CHAPTER 2 Making the American Welfare State More Humane—Past, Present, and Future

We engage in social welfare history to provide us with specific inspiration in contemporary society. The degree provides our advocacy and policy practice frameworks that help us understand how social welfare engaged and engaged in advocacy at the level of clients and their families in prior era and in the contemporary period. It introduces us to ethical reasoning, including the ethical principle of social justice. It helps us understand why the United States is often receptive to social reform that would help vulnerable populations—we have it often provide a positive environment for policy practice. You will be asked to provide points in the chapter to reflect on the role of professional social workers, engage in ethical analysis of key issues and policies, engage in critical analysis, and discuss historical and social worker theory that underlie specific policies.

### Care Advocacy and Referrals

April, Figure 1.2 (p. 27) shows us discussed traditional services, policy practice, public social practice, and policy practice. It uses advocacy services "going to" for and with specific clients when they encounter difficulty including medical services, benefits, and rights, public advocacy services, regulated efforts to secure change in policies to agency, community, and government settings. Care advocacy and policy advocacy are practice interventions that are closely linked to social welfare policy. We discuss how to engage in each of these—and then discuss how care advocacy can lead to policy advocacy for social workers in specific settings.

Care advocates help specific clients obtain a benefits, and rights that they need to achieve well-being, but might not obtain without the help of the strength of health care to their private side of care advocates. Health care workers require some guidelines they don't receive.

- ethical care, such as individual concern for needs or how that worker, maintenance of confidentiality of their care, treatment of their information shows that health care workers care
- quality care such as evidence-based care is research findings, care from qualified personnel and care based on their approach for care or handling their
- culturally competent care that gives results services to persons who have cultural, high proficiency, choice of providers from the 2 way cultural background, and care that is a
- to specific culturally based preferences and practices care that strive to provide with medical conditions even from using first personhood or that order to establish them they become culture tomorrow practice
- legislative care that allows all persons, over their financial resources, to obtain services
- care that address moral health and self-care issues that self-independently of an illness or that we linked to it
- community-based care with persons, because this person and service conditions in their nature rather than a specialty to specific a

Michael Lind

state was foreseeable long before the troubles afflicting the Maastricht treaty and the crisis of the European Monetary System. It seems unlikely that liberal universalism will succeed where liberal universalisms failed, in attempting to transfer loyalties from nations to supranational entities.

Despite all the evidence of the enduring power of nationalist sentiments, many statesmen, scholars and opinion leaders continue to treat nationalism as an anachronistic or dangerous relic of a previous age. Translated into policy, this prejudice against national self-determination usually means supporting the efforts of regimes to suppress secessionist movements by national minorities. The widespread conviction that nationalist secession is in itself dangerous and regressive helps explain the vehemence with which many observers blasted Germany for its allegedly premature recognition of Slovenia, Croatia, and Bosnia, and the criticism directed at the United States for allegedly engineering the independence of East Timor.

This prejudice against nationalism—even liberal, democratic, constitutional nationalism—is a mistake. Reflexive support for multinational political entities, especially despotic ones, is as misguided as the automatic rejection of movements that seek the sovereignty of national homelands. For practical strategic reasons, as well as reasons of principle, the United States should identify itself with the most powerful idea in the contemporary world.

### THE GREAT ILLUSION

HAVING SURVIVED so many setbacks since the waning of the French Revolution, will nationalism now end up in the dustbin of history along with its defeated universalist rivals? Scholars and writers (mostly social democrats and classical liberals, but also a few realists, such as E. H. Carr and James Burnham) have been pondering the imminent obsolescence of the nation state for most of the twentieth century. In most cases, they have noted their argument on the economic scale made possible by advances in technology—the transatlantic cable of 1866, the computerized stock exchange and satellite television of today.

In Defense of Liberal Nationalism

But this "interdependence" school, like Marxism, is based on a contradiction. It is simultaneously deterministic and prescription. If the world is inevitably growing more interdependent, then there is no reason to oppose particular nationalisms that are doomed in the long run anyway. Why oppose what is bound to wither away? On the other hand, if effort is needed to promote transnational integration, then clearly such integration is not preordained.

The mistake of prophets of a postnationalist world has been to leave out moral and political economies of scale. As a purely technical matter, it has probably been possible since Genghis Khan—certainly since Napoleon—for the earth to be governed from a single capital. That all attempts at world conquest have failed has nothing to do with technology and everything to do with the determination of diverse peoples not to be ruled by the competing nation of the day. This is true of the latest attempt at world hegemony as well. Superior technology made it possible for the Western alliance to out-innovate and outproduce the Soviet bloc, but it was American, German and Japanese desires to protect national autonomy that kept those countries in a four-decade alliance. Why nations that will fight to the death to prevent surrendering their sovereignty to a conspiracy would voluntarily surrender it to a supranational bureaucracy or a global elite of financiers and industrialists is a mystery that interdependence theorists have yet to explain.

### THE 'STABILITARIANS'

A SOMEWHAT MORE plausible case against nationalism is made by "stabilitarians," or defenders of the present-day territorial status quo. The harmful effects of alteration of existing borders—even peaceful alteration—would, it is thought, outweigh the benefits. Every viewpoint has its adherents, of course. A national leader will view stability differently, depending on whether he thinks of his state as a status quo or a revisionist power. The belief of the Bush administration that the United States was a status quo power explains its efforts to keep both the Soviet empire and the Yugoslav federation intact.

While the breakup of a multinational state may create a regional

# Convert an image PDF to searchable

- Utilized the **e-Reserves Services** at the Library
- Use the **Book Scanning** stations in the Library to scan a book chapter or article and choose the “searchable PDF” option.
- Use **Read&Write** to convert an image to searchable PDF. (instructional video available via the software Help menu). <http://www.unh.edu/sas/readwrite>
- Use **Adobe Acrobat Pro**  
([\\$121/yr.](https://td.unh.edu/TDClient/Requests/ServiceDet?ID=396) )



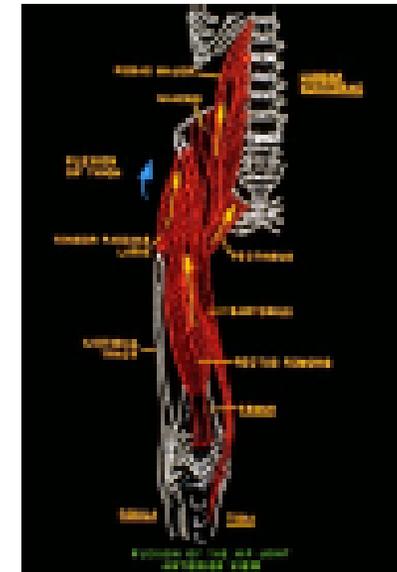
Questions?



# PowerPoint Accessibility

- ▶ Utilize Themes vs. text boxes
- ▶ Contrast matters -- Avoid Red/Blue combo
- ▶ PPT should include Text not images of Text

MUSCLES OF THE HIP JOINT			
LOCATION	MUSCLE	MOVEMENT OF THE JOINT	
ANTERIOR	GLUTEUS-OLIVACEUS & PIRAS MAJOR	FLEXION	
	RECTUS FEMORIS	FLEXION, ABDUCTION, EXTENSIO, ROTATION	
	SARTORIUS TENSOR FASCIAE LATAE	FLEXION, ABDUCTION	
POSTERIOR	GLUTEUS FEMORIS SEMIMEMBRACEUS SEMITENDINEOSUS	EXTENSION	
	PERONEUS		OUTWARD ROTATION
	GEMELLI	EXTENSION, OUTWARD ROTATION	
	OBTurator EXTERIOR		
	QUADRATUS FEMORIS		
	OBTurator INTERIOR		
	GLUTEUS MAXIMUS		
MEDIAL	ADDUCTOR BREVIS ADDUCTOR LONGUS ADDUCTOR MAGNUS	ADDUCTION, FLEXION IN FLEXION ADDUCTION, FLEXION	
	GRACILIS	EXTENSION & ADDUCTION ADDUCTION IN INWARD ROTATION	
	PECTINEUS	ADDUCTION & FLEXION	
LATERAL	GLUTEUS MEDIUS	ADDUCTION & INWARD ROTATION	
	GLUTEUS MINIMUS	INWARD ROTATION & ADDUCTION	





# Printing PPT vs. PDFs

- ▶ PPT vs PDF on Canvas
  - ▶ Issues with printing (colors, layout)
  - ▶ PPT allows the student more flexibility/control in how they print out the slides including multiple slides per page and changing or removing background

# Benefits of Captioning Videos

- ▶ Accessibility for hard of hearing
- ▶ Better comprehension
- ▶ Flexibility to view in sound-sensitive environments
- ▶ Searchable
- ▶ Benefits non-native English speakers
- ▶ May be translated to other languages

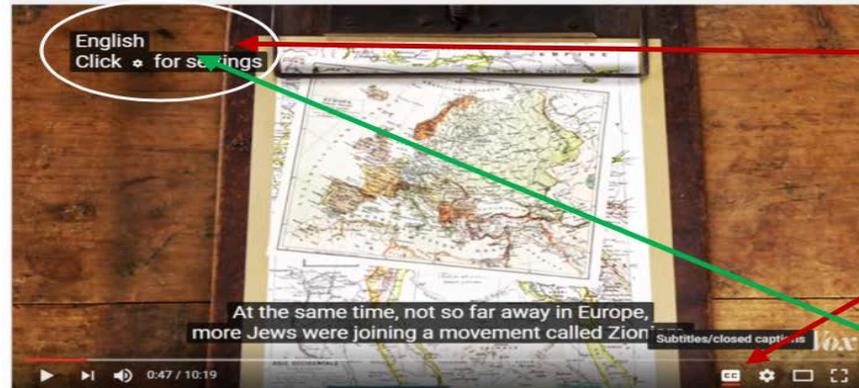
**80%**  
Of people who use captions aren't deaf or hard of hearing

**48 Million**  
Americans with hearing loss

# Types of Videos

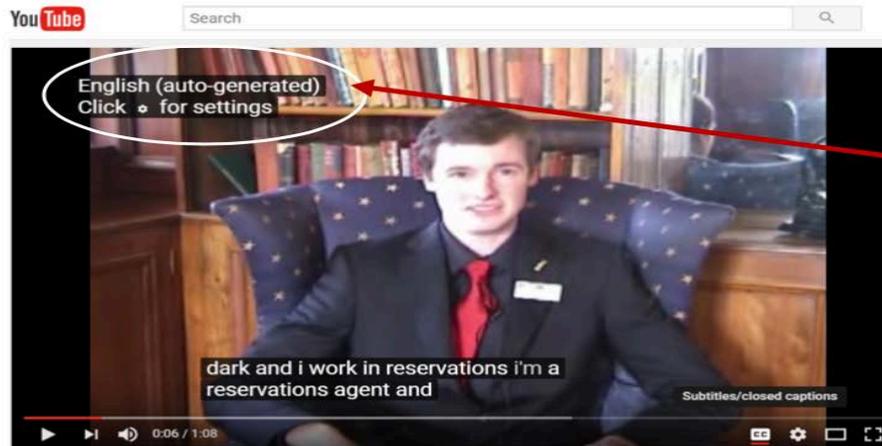
- ▶ Lecture Capture -- Kaltura Capture or Zoom
- ▶ DVD's or streaming content
- ▶ 3<sup>rd</sup> party videos
  
- ▶ **Sources for captioned videos:**
  - ▶ TEDTalks, Khan Academy
  - ▶ Kanopy, AlexanderStreet (UNH video streaming)
  - ▶ Many major networks and educational video producers (PBS, ABC, NBC, CBS, FOX etc.)

# YouTube videos: (review CC's for accuracy!)



Click the **CC** button and look  
in the top left corner

"English" [Good!]



"English (auto-generated)"  
[quality ??]



**Let's look at Kaltura and captioning  
process**



## Questions:

- ▶ See our SAS → Faculty → Creating Access page for more details and resources.  
<https://www.unh.edu/sas/creating-access>
- ▶ Thank you!