

Training with Accessibility in Mind: Inspiring the Faculty to Reach Every Learner



Illustrations by Toby Morris

Comic from: <https://tinyurl.com/ycyfgesx> Toby Morris Illustrator Twitter handle: @XTOTL

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For a text version and list of references to all the links in this presentation click on the following link: <https://bit.ly/30XCt9U>

Evaluate Sessions and Win!



👍 Evaluate Session

- Download and open OLC Conferences mobile app
- Navigate to specific session to evaluate
- Select “Evaluate Session” on session details screen (located under session type and track)
- Complete session evaluation*

*Each session evaluation completed (limited to one per session) = one contest entry

Five (5) \$25 gift cards will be awarded

Must submit evals using the OLC Conferences mobile app or website

Full Disclosure

Accessibility is a civil right. This is personal for me.



- B.A. Special Education
- M. Ed Instructional Technology
- Mother of a child on the Spectrum. Autism Spectrum Disorder.

What does it mean to have something be accessible?

Accessible: refers to the concept that individuals with disabilities can access and use a product or system and benefit from its use.



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In order to get faculty buy in for accessibility, you must focus on why it is important.

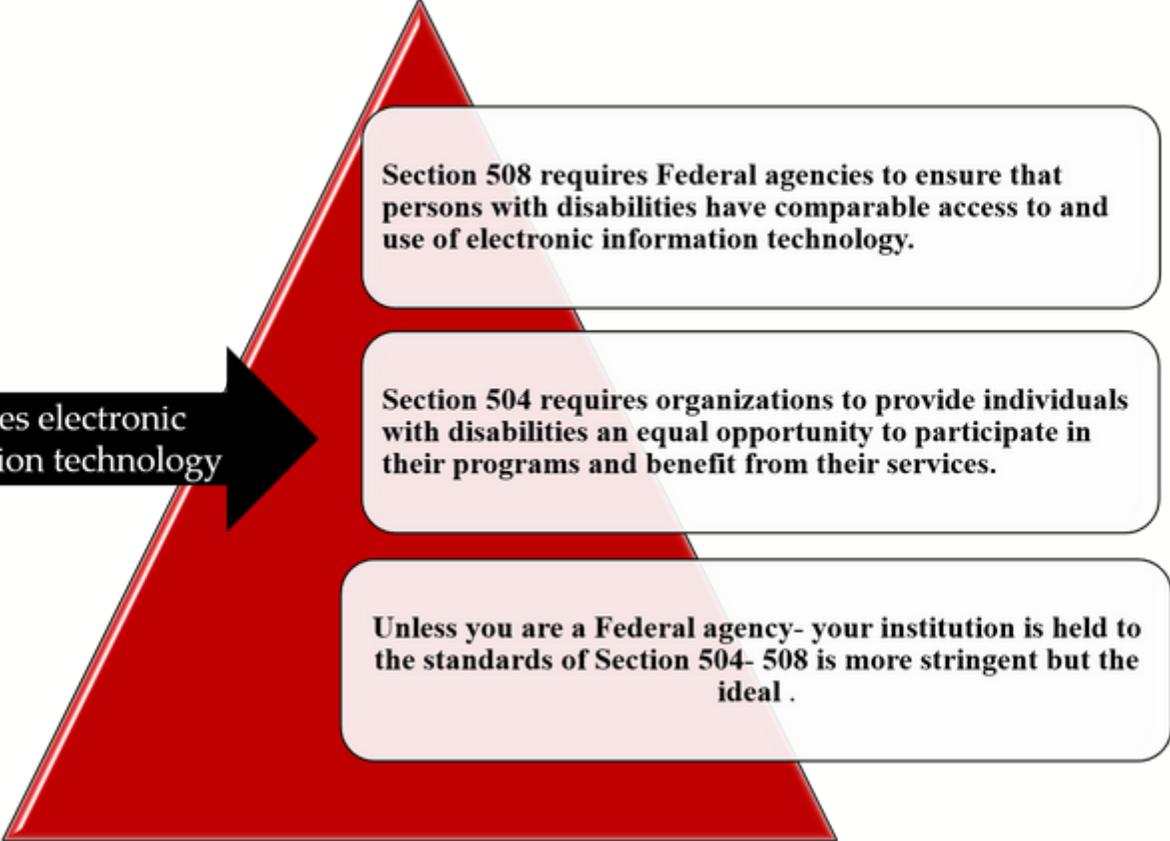
"We don't teach to teach the privileged and the few, we teach to teach all, and if we don't become accessible, we are not teaching everyone."- [Lucy Greco](#)



**Lucy Greco
Web Accessibility
Evangelist
(Berkeley)**

In terms of education, we are mandated by law that all digital content is accessible.(The Rehabilitation Act of 1973-amended many times)

**Includes electronic
information technology**



Section 508 requires Federal agencies to ensure that persons with disabilities have comparable access to and use of electronic information technology.

Section 504 requires organizations to provide individuals with disabilities an equal opportunity to participate in their programs and benefit from their services.

Unless you are a Federal agency- your institution is held to the standards of Section 504- 508 is more stringent but the ideal .

Not every disability is visible or disclosed.

Visual Impairment

- This covers people who are completely or partially blind, have poor eye sight or suffer from color blindness.

Physical Impairment

- This covers people who are missing limbs, have reduced control of their limbs or suffer from dexterity problems or epilepsy.

Hearing impairment

- This covers people who are completely or partially deaf.

Cognitive impairment

- This covers people who have difficulties in learning such as learning disabilities.



Students with disabilities are a vulnerable population in higher education.



19% of students in North America have a disability



25% of the global population, 9% of students in North America, has a cognitive disability. That means 1 in every 25 North American freshmen will have a learning disability.



In North America, 64% of disabled students earn a high school diploma in 4 years.



Only 16% of North American students with disabilities earn college degrees



60% to 80% of North American undergrads choose not to disclose a disability.

*References

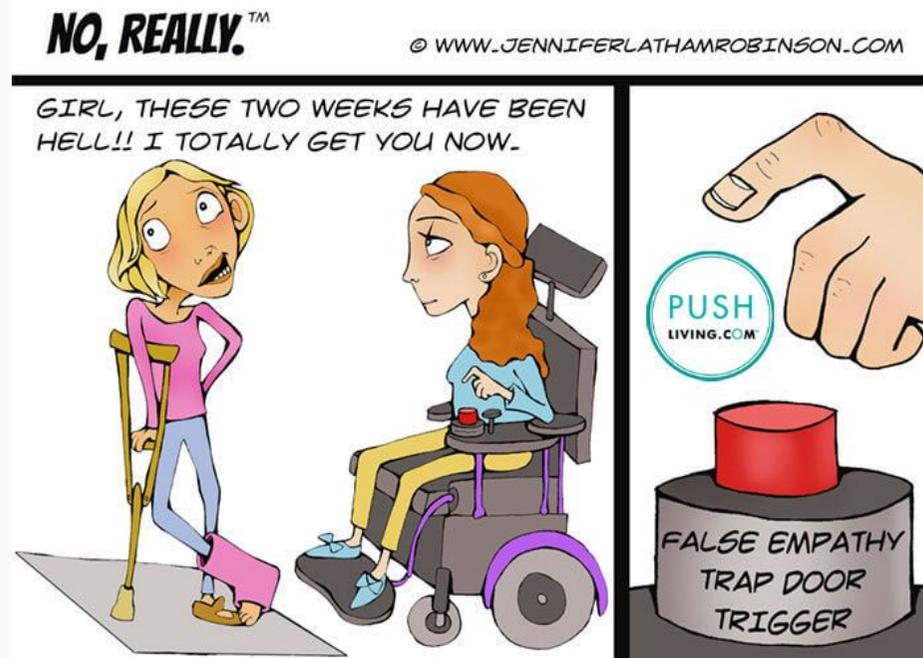
1. <https://tinyurl.com/y8r2nk3d>
2. <https://tinyurl.com/y7so74rv>

When doing a Professional Development session on digital accessibility, the focus needs to be about making the content accessible.

Avoid doing activities or simulations that are geared towards creating empathy for people who are disabled.

Example: "Okay, we are going to have you experience what it feels like to be in a wheel chair all day. Or today you will experience what this type of eye degeneration feels like"

[Research shows](#) these types of activities actually have negative results.



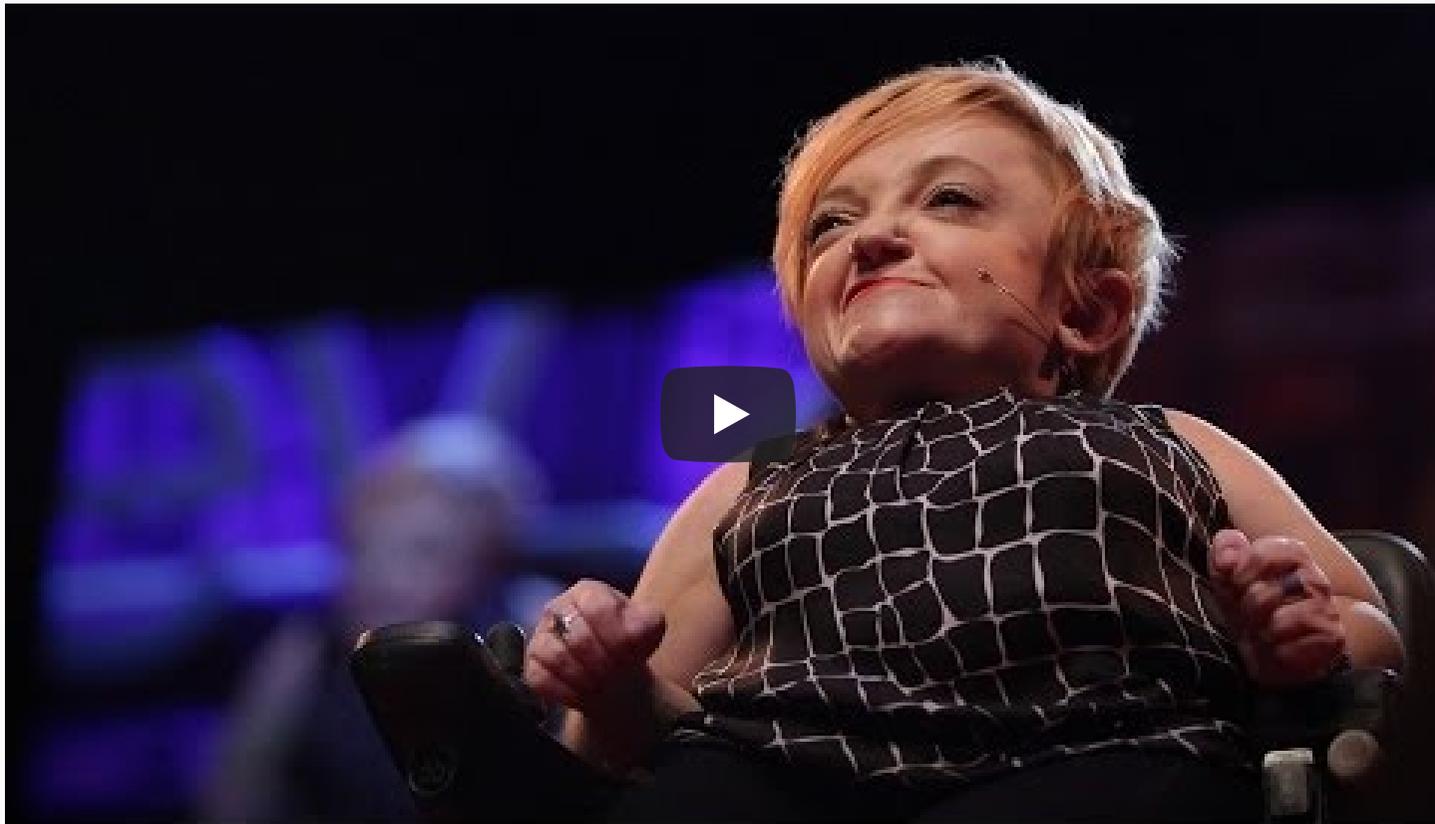
Comic by [Jennifer Latham Robinson](#)

Having empathy is not the problem. The problem with these kinds of simulations is that they are very ableist in practice.



Comic from: <https://tinyurl.com/ycyfgesx> Toby Morris Illustrator Twitter handle: @XTOTL

I am not your inspiration, thank you very much! Stella Young



Google form: <https://forms.gle/GrNMeHLGy5yBiaBQ6>

Ableism

Ableism is discrimination and social prejudice against people with disabilities or who are perceived to have disabilities. Ableism characterizes persons as defined by their disabilities and as inferior to the non-disabled.



Comic by Jess and Li from <https://thedisabledlife.ca/> Twitter handle @TheDisabledLife

Some examples of Ableism



Comic by Twitter handle:
@AspiGurlComic



THE MOST APPROPRIATE LABEL IS USUALLY THE ONE SOMEONE'S PARENTS HAVE GIVEN THEM.

When it comes to content, students need to be able to:



PERCEIVE



UNDERSTAND



NAVIGATE



INTERACT

With the content fully to make the information make sense. If they are unable to do so, the content is not digitally accessible.

Some Professional Development training ideas you can do:(with the focus always being on how inaccessible content is a barrier to education)

- Have your faculty listen to how a screen reader reads content. Screen readers are used by people who are vision impaired to read and understand digital content.

For Mac and Apple products, the screen reader is built into their systems by default.(nothing you need to install)

The screen reader for Mac and Apple products is called [VoiceOver](#).

For PCs, (Windows), the built in screen reader is [Windows Narrator](#). Also available for PCs: [NVDA](#) is a free screen reader that can be download to your computer. It is a free alternative to the costly [JAWS](#) screen reader software.



Demonstrations of Screen Readers

-When demonstrating screen reader use, create an accessible document and then create an inaccessible version of the same document.

For example: I make a powerpoint presentation that contains images, and graphs. I provide descriptions (alt-text) for the images and graphs which a screen reader will read.

Then I make a copy of that presentation, but remove all descriptions for images and graphs.

How does this change what information is available to the student?



Keyboard navigation

Not everyone can use a computer mouse. Many people use keyboard commands to navigate around the computer software and websites.



Video source: <https://www.w3.org/WAI/perspective-videos/keyboard/>

The basics of keyboard testing are simple—the **Tab** key can be used to navigate through links and form controls, **Enter**(and sometimes **Spacebar**) selects an element, and the arrow keys are sometimes used for other navigation.



A [simple trick to check for keyboard navigation](#) is to use the tab button on your keyboard. Can you see where the cursor is and does the cursor go to each item on the page? If the keyboard navigation is frustrating, how does that impact the learner's experience?

[Keyboard accessible example](#)

[Keyboard inaccessible example](#)

Interaction	Keystrokes
Navigate to most elements	<ul style="list-style-type: none"> • Tab • Shift + Tab - navigate backward
Link	Enter
Button	Enter or Spacebar
Checkbox	Spacebar - check/uncheck a checkbox
Radio buttons	<ul style="list-style-type: none"> • ↑/↓ or ←/→ - select an option. • Tab - move to the next element.
Select (dropdown) menu	<ul style="list-style-type: none"> • ↑/↓ - navigate between menu options • Spacebar - expand

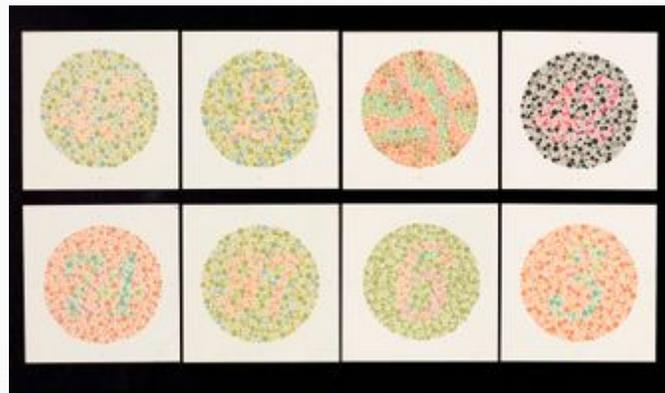
Color Blindness

Share the following web resources to see how color blindness affects how content looks. How does this change the learner's experience?

[How do websites look with the different types of color blindness?](#)

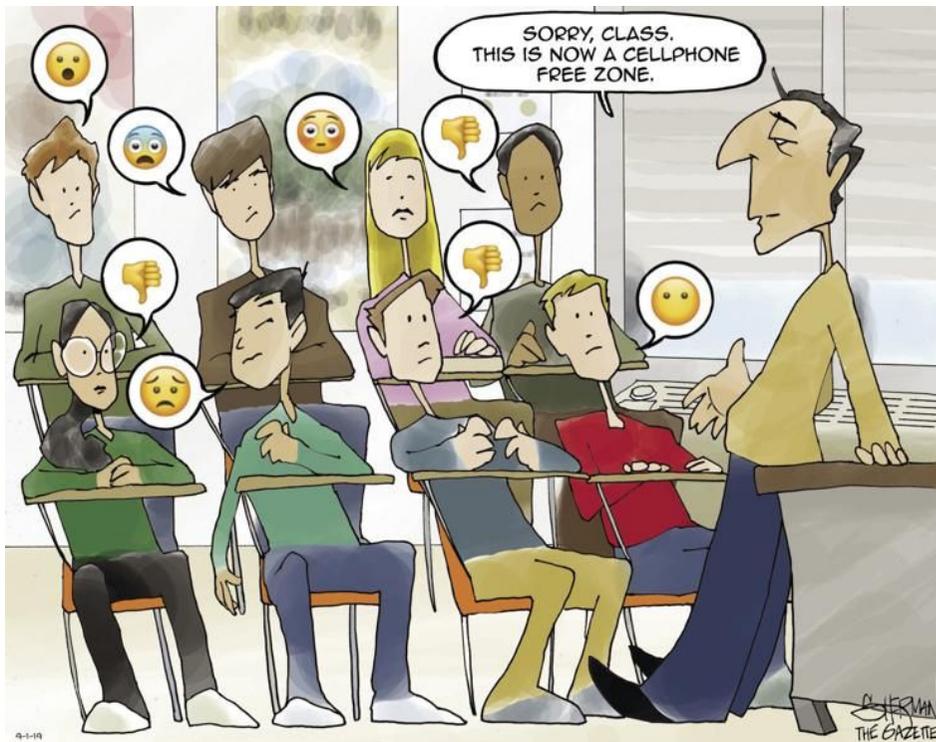
[How does deuteranopia affect how you see the world?](#)

[How do images look with different types of color blindness?](#)



Have a discussion about the Accessibility features of electronic devices.

Many electronic devices have built in accessibility features in their products. As such, banning the use of such electronic devices can be very [problematic for students](#).



[Accessibility settings of Apple products](#)

[Accessibility settings for Windows Devices](#)

[Accessibility settings of Android devices](#)

"Allowing only students who have documented disabilities the use of digital devices can draw unwanted attention from their peers, effectively identifying them as having a learning need they are entitled to keep private."-[EDUCAUSE ECAR 2018 report](#)

Common misconceptions surrounding accessibility

- Only people with disabilities benefit from having accessible content.
- Making content accessible means that everything has to be boring.
- Making content accessible is difficult to do.
- Making content accessible means you have to create entirely separate content.



CLEARING A PATH
FOR PEOPLE WITH SPECIAL NEEDS
CLEARS THE PATH FOR EVERYONE!

Misconceptions debunked

- An accessible information technology environment enhances usability for everyone.
 - Accessible content can have pictures, colors, video and sound in it.
- Many software programs have accessibility features/tools that makes creating accessible content easier.



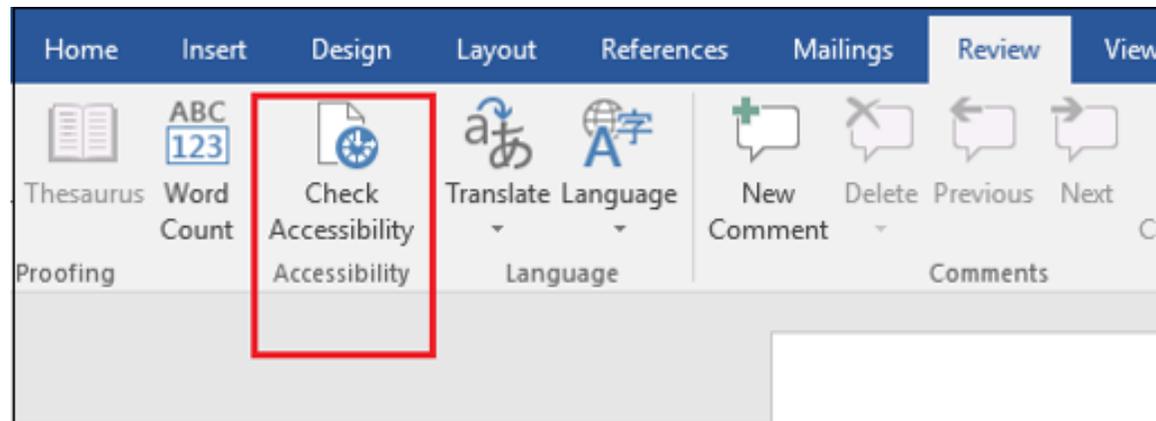
How are students with disabilities affected?

Format	Barrier	Accessible Alternative
Printed text(paper)	Incompatible with screen readers used by blind/low vision students and students with learning disabilities	Supplement with audio, provide an electronic copy of text
Audio	Hearing impaired students may not hear it, students with LD (auditory processing) may have difficulty understanding it.	Supplement with printed text
Video	Blind/low vision students may not see it, students with LD (auditory processing) may have difficulty understanding it.	Provide description, captions or written transcript
Picture	Blind/low vision students may not see it	Add description/caption
Synchronous (real time) discussion	Blind/low vision students, students with LD and ADHD and other disabilities may have difficulty following up and keeping up	Use asynchronous (online) format for all or some discussions to allow more time for processing and responding
Tests/quizzes	Many students with disabilities have slower processing speeds that impact performance	Provide extended time/ Supplement with audio/provide large text size option



Trick/Tip one: If you use Microsoft Suite Products(Powerpoint, Word,Excel, OneNote, etc) or Google Suite Products(Docs, Sheets, Slides, etc) use the accessibility checker.

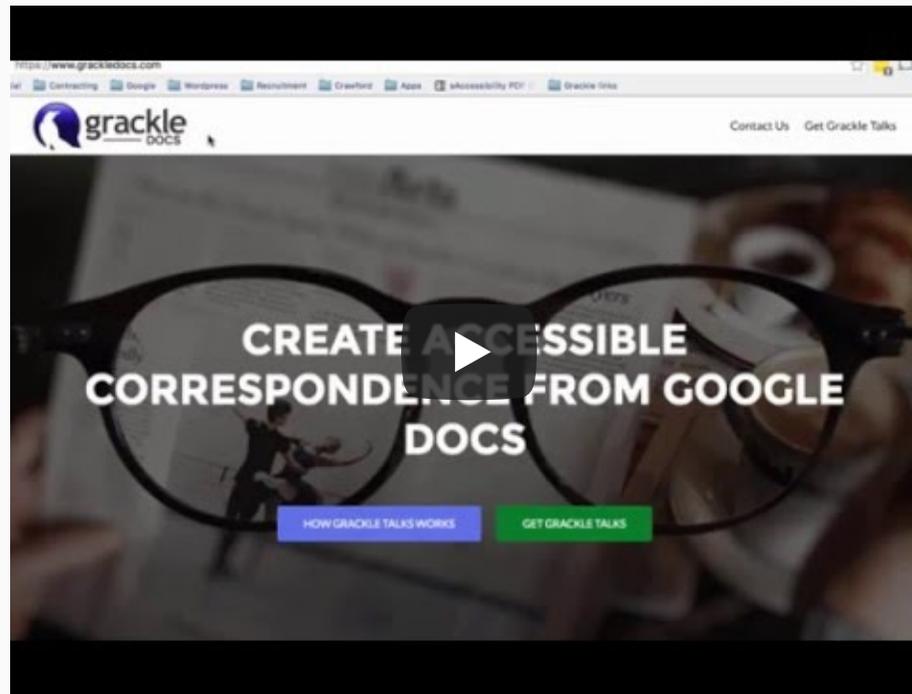
- For Microsoft Suite products: Before you share/publish your content with students, use the built-in [accessibility checker](#) to see if your file has any errors in it.
- The accessibility checker checks your documents and provides feedback on how to change any errors to make the document more accessible.



[How to use the Accessibility Checker in Word Video](#)

[Transcript of video](#)

If you use Google Suite (Docs, Sheets, Slides), you can use an add-on called [Grackle](#).



The Grackle add-ons allow you to check your documents for accessibility. It will alert you to any errors, and help you make your documents accessible PDFs.

Tip/trick 2: Use the dictation tool in Microsoft Office 365 Suite , or the Voice tool in Google Docs to make transcripts of lectures.

Both Microsoft Office 365 Suite products and Google Suite products have a dictation tool. The dictation tool allows you to speak aloud and your words will be automatically transcribed on your document. You may have to change a few words on the final product, but both are fairly accurate. This is an easy way to have transcripts created and ready for your students.

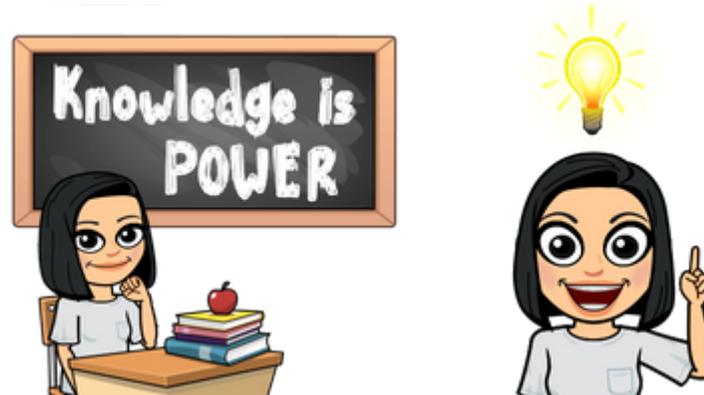


Tip/trick 2: Another tool you can use for creating transcripts is a free tool called Web Captioner.

[Web Captioner](#): Web Captioner is a web-based tool that allows you to create instant captions/transcripts by simply using a mic. Nothing to install. You can choose the language you want the transcript to be in and you can save any transcript as a text file or word file.

You can upload this transcript to any LMS(Learning Management System) or website.

You can even have another tab opened in your browser and the captioning will still be going on!



Speaking of transcripts...

If captions have been enabled in YouTube Videos, those videos also come with transcripts. The easiest way to access these transcripts is to use a tool called [VidReader](#).

- 1) Simply copy and paste the youtube url link in the VidReader text box.
- 2) Click on Read It.
- 3) The tool will then break down the content of the video into a readable and downloadable transcript.
- 4) Give your students the url to the video transcript, and they can read along with the video. You can also download the transcript and upload it to your course for your students.



**How to Create a
Transcript of Any
YouTube Video**

Video content from [Richard Byrne](#)

Tip/Trick #3: If you use Microsoft Office Suite products (PowerPoint, Word, Excel, etc), use the accessible templates they provide.

- Microsoft products like PowerPoint have accessible templates built into their system.
- If you type the words "accessible templates" in the search box when you enter a Microsoft product, you will get several templates that have the correct color contrast and can be understood by assistive technology, like screen readers. All you have to do is plug in your information.



Tip/Trick #4: Create mp3 audio files of your typed work.

There are several text to mp3 sites that offer text conversion tools. Most of the sites have free basic services, then offer premium features at a cost. Here are some sites that you can also use:

-TTSMP3.com: Free service up to 3,000 characters. Simply copy and paste your text into the text box and select the language and voice you want. Then click on the download mp3 button and an audio file is created. You can then upload that file to a presentation or LMS. (Learning Management System.)

-Text2Speech.org: Free service up to 4,000 characters. Only 4 voice options and only 2 language options.

-NaturalReaders.com: This site not only offers free conversion of text to mp3 (up to 20 minutes per day) services, but also reads text/content from websites and documents. A premium subscription costs \$9.99 a month with additional features.



Another alternative you can use...

- The site texttomp3.online offers a free tool that allows you to copy and paste your text into a text box.
- You then pick which voice you want for the audio file and which language you want the voice to be in.
 - You then click on the generate file button.
 - The audio file is then created.
- If you like the recording, you simply download the audio and upload your file to whatever presentation/LMS you want.

15 credits	Premium <small>popular</small>	Free
\$ 4	\$ 14	\$ 0
Buy credits	Get Premium	Continue Free
+15 Conversions	Unlimited Conversions	5 Conversions per day
300 words / conversion	10000 words / conversion	300 words / conversion
5 files storage	100 files storage	5 files storage
-	Speed priority	Speed traffic dependent
-	1 time fee	-

Textomp3 is free to use but you have a 300 character limit. If you want more letter characters, you can purchase a premium account. A premium account costs \$14 (one time fee) and you get up to 10,000 letter characters and unlimited conversations.

Tip/Trick 5: Use closed captioning with your videos.

Video captions are useful for all students and essential for some students. Research has shown that using captions with videos can make students better readers, however, for students who are deaf, captioning is absolutely essential for understanding content.



A [recent study](#) also found that 42% of students use Closed Captions(CC) to maintain focus. The same study also found test scores increased by 3% with CC. Test scores increased by 8% with interactive transcripts.

The captions, therefore, must be quality and must accurately reflect what is being said in the video. If the captioning output is poor, understanding the content becomes very difficult.

Caption online videos with the [Kapwing App](#).

If you use an online video you have to rely on the captions that come with the video. Sometimes, these video captions from online videos are good and other times they are awful. The problem with online videos is that, unless you were the person who uploaded the video to the online platform (like youtube), you cannot edit the captions.



With Kapwing's Subtitle feature, you can take any video(even if you aren't the one who created it) and add/edit any of the captions.

Click on the auto generate button.



Pick a language.



Once the captions are generated, you can correct any errors that may exist in the transcription



In addition, you can pick the size, color and font of the captions.

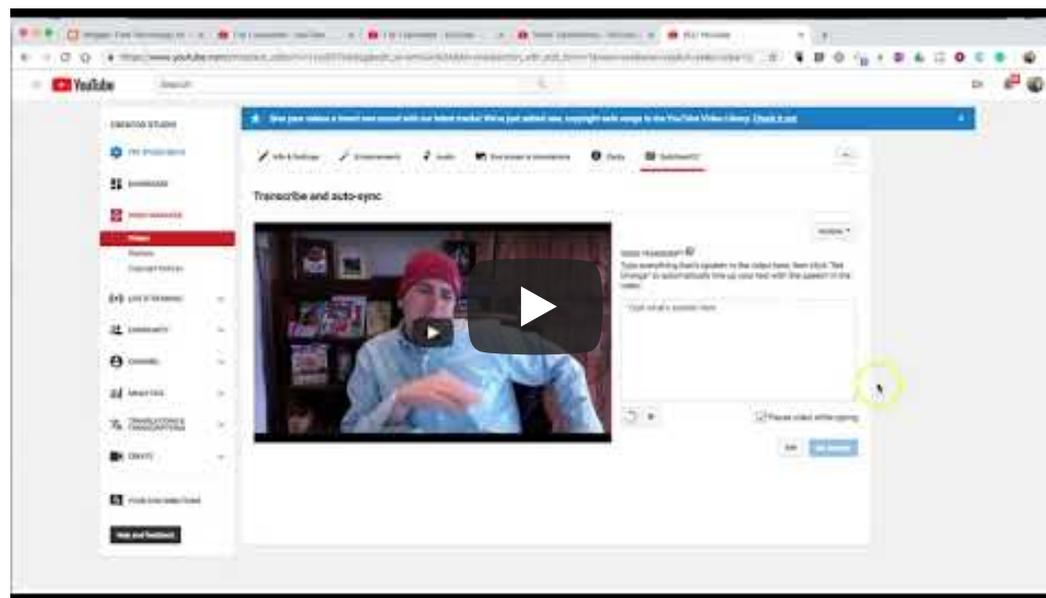


Once you have your captions the way you want, you simply click on the create button.

If you create your own Youtube videos, you can edit the captions in your video.

If you create your own Youtube videos, first make sure that automatic captions are enabled in your videos.

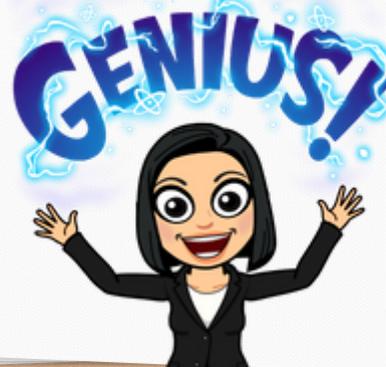
If they are enabled, you are then able to edit the captions that are generated.



[From Richard Byrne's blog post](#)

Tip/Trick 6: Use the automatic captions options available in your Presentation software.

Did you know that both PowerPoint and Google Slides have automatic captions? They do! You can turn these captions on when you present a presentation. If you use a software that lets you record your screen, the captions will also show up on the recording.



Speaking of captioning for presentations....

If you use PowerPoint, Microsoft has released a new feature called PowerPoint Live and is now available globally.

With PowerPoint Live your students/audience can get the presentation as you are presenting live on their device. They can select what language they want the captions to be in, and can also provide feedback to you while you present.



Tip/trick #7: Use [YouDescribe](#) to create audio descriptions to YouTube videos.

What is Audio Description?

" Audio Description is the verbal depiction of key visual elements in media and live productions. Also known as "audio description" or "video description," the description of media involves the interspersion of these depictions with the program's original audio." - quote from [Description Key website](#).

Audio Description is a form of narration used to provide information about visual images for the benefit of blind and visually impaired people.



[Video trailer without audio description](#)



[Video trailer with audio description](#)

How does YouDescribe work?

- 1) If you have a Google account, sign in with your Google credentials.
- 2) In the search box, type in the keywords or the title of your video.
- 3) Videos will come up that match those keywords. First you will see videos that have audio description. You can keep those descriptions or add your own.
- 4) For videos that show up that don't have audio description, you can add the audio description.
- 5) Save and publish your video
- 6) Share the link to the audio described video.



Tip # 8 Tell your students about free tools that make websites easier to read

As educators, we know that the Internet has revolutionized how we access and gain information. We also know that sometimes we find sites that have relevant information/content on them, but those same pages also contain ads, unrelated videos or pictures. This can be problematic for students as the "extras" distract from the information they are trying to get from the site. There are several free tools that make websites easier to read without the clutter.

- 1) [Safari Reader](#): This is a built-in option for the Safari web browser on Macs and iOS devices(iPhones, iPads), allows students to remove ads and visual clutter on a page.
- 2) Chrome Browser: The Chrome Browser has several free extensions you can use to remove the visual clutter. Some of these extensions include [Mercury Reader](#), [JustRead](#) and [Easy Reader](#).
- 3) [Firefox Reader View](#): If your students use Firefox, the browser comes with a simple Reader View button, that removes all the "extras"
- 4) [Microsoft Edge](#): Microsoft Edge also comes with a built in reading view. The new Edge browser, also comes with [Immersive Reader](#) which will read the websites aloud, while also removing the clutter.

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