Empower Students With Accessibility Tools

Explore strategies and tools like text to speech, translation services, and closed captioning that can make content more accessible to your students.

Digital Study & Life Skills

Grades K-12

20 min

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When we empower students, we not only help them succeed in our classrooms, but we also prepare them for the rest of their lives. Teaching students to use assistive technology is a powerful way to empower them for lifelong success, as they navigate an increasingly tech-rich world.

As you review the strategies and tools on this page, consider which of these can help meet the needs of students in your classroom. Also think about ways you could share this information with your students. By providing these resources, your students can take ownership of their learning and advocate for themselves by using the options that make the most sense for their own situation.

Accessibility tools and strategies generally fall under the broader category of assistive technology (AT). AT is technology that can help someone work around personal challenges. The technology "assists" them in some way. The tools and tips we will explore in this section relate to meeting student needs during remote teaching, but they can be equally valuable in a face-to-face classroom setting where students are using computers or other digital devices.

As you review the list, be aware that each type of assistive technology can usually be accessed in more than one way. Consider which options are available to you and your students: browser extensions, websites, stand-alone programs, features built into other computer applications, or even through the operating systems of computers, tablets, and phones.

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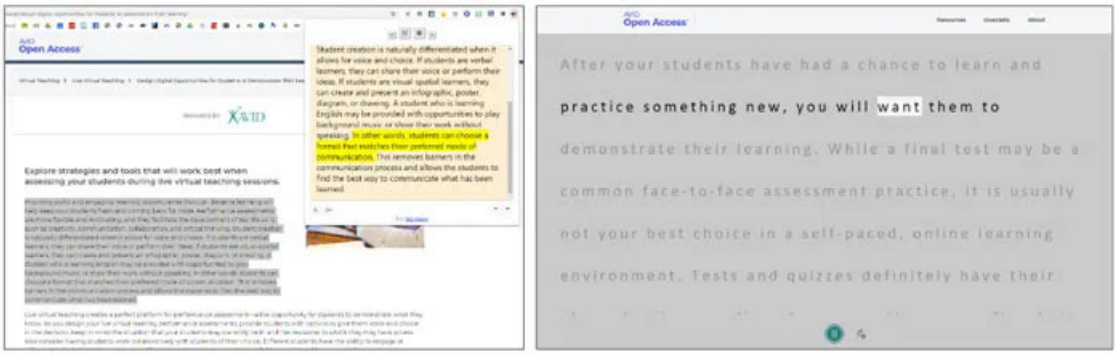
Text-to-Speech

Text-to-speech tools, often called screen readers, convert the text on a computer screen into audio. This is like having the computer read the page to you, and it is a great option for students who struggle with reading or are learning a new language.

- Read Aloud (Tip Sheet ⬇): This Chrome extension allows you to highlight text and then right-click on it to activate the screen reader. You can use this tool to read PDFs if they are opened in Kami (Tip Sheet ⬇) first.

- NaturalReader: Copy and paste text into this website to hear it. A nice feature is that you can adjust speaking voice and speed.
- Use Immersive Reader on Websites [unofficial]: This is another Chrome extension that allows you to highlight and right-click text to have it read to you. However, this extension also highlights each word as it is read.
- Note about other options: Many research databases and learning management systems integrate text-to-speech features into their products. Be sure to look for these features.



Speech-to-Text

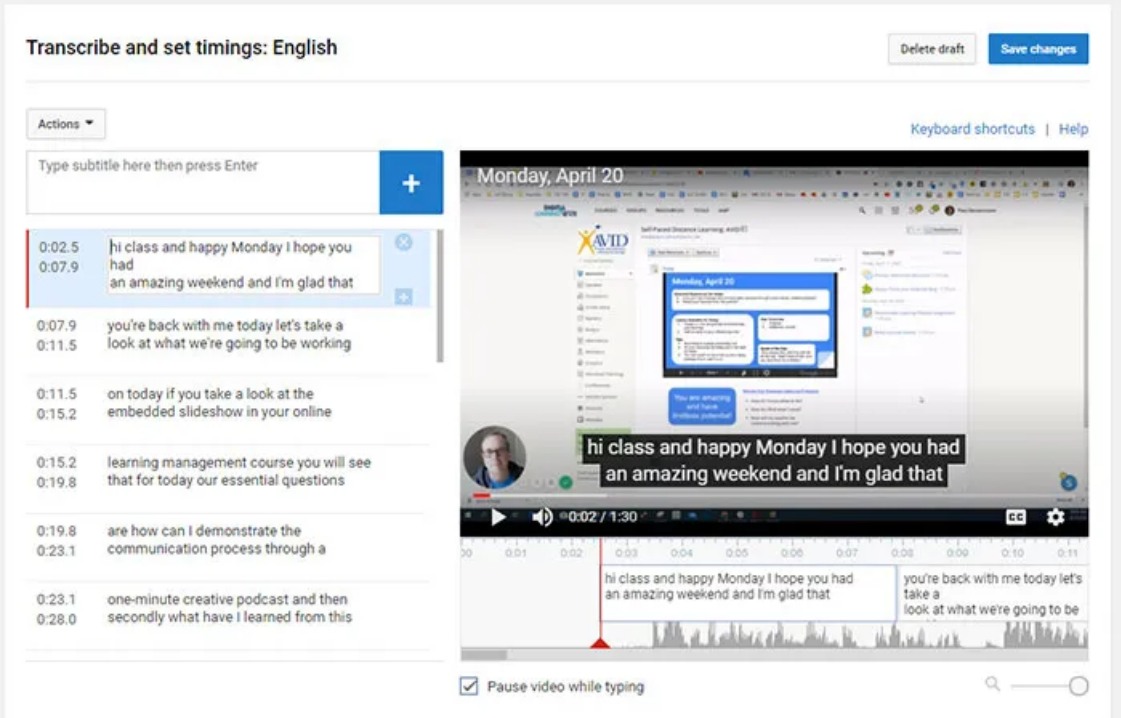
These programs capture spoken words and convert them into typed text. Many of these options even add punctuation and paragraph breaks through verbal signals. Speech-to-text tools are especially beneficial to students who lack either writing or typing skills. By capturing their spoken word, they can often communicate their message more effectively and efficiently than if they were to type it themselves.

- TalkTyper: Use this website to convert your speech to text. Then, copy and paste your text into any application of your choice. TalkTyper includes a translation feature, as well.
- Dictation: This website will type dictations in multiple languages.
- Google Docs Voice Typing: This feature is integrated into Google Docs (and can be found under the “Tools” menu). To use this, activate voice typing, click the microphone, and begin speaking.
- Voice In Voice Typing: This Chrome extension allows you to voice type into other Google products as well as many text fields on websites.
- Note about other options: Many phone and tablet applications have speech-to-text features built into their keyboard options. These are often convenient and free.

Closed Captioning

Closed captioning is text that appears on the bottom of a video screen. It provides a transcript of anything that is spoken as well as other sounds that can be heard in a video. Students with hearing loss rely on closed captioning to “hear” the audio portion of a video. When translations are available, closed captioning can also be extremely helpful to language learners. YouTube is the most popular option for adding captions. In fact, captions are automatically generated, and they can then be edited for better accuracy (which is a good practice since auto-captioning is not always precise).

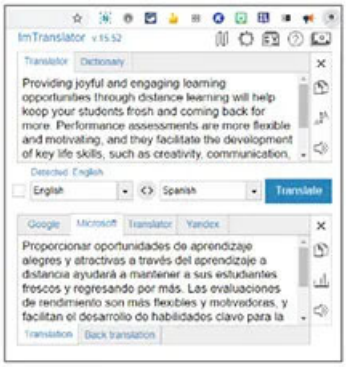
- YouTube Studio: To edit closed captions in YouTube, you will need to access your video through YouTube Studio. Here, you can choose your language, review auto-captions, and update them as needed.
  - How to Add Subtitles to YouTube Videos (Video Tutorial)
  - Turn Captions On/Off in YouTube
  - Adding Subtitles and Closed Captions to a YouTube Video
- oTranscribe: This website allows you to put a video on the screen and play it while you manually type a transcript that can be exported.



Translation

While these tools do not always translate perfectly, they can help to reduce language barriers by converting text into a different language. Depending on the tool, these programs can translate text on a screen or for spoken words.

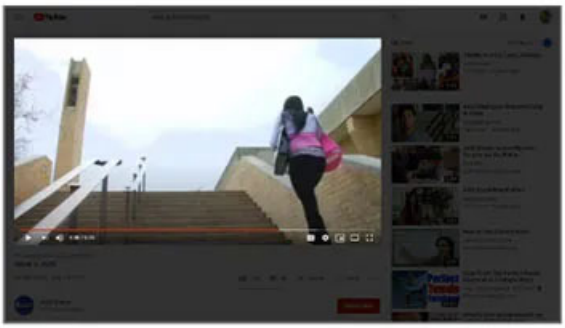
- ImTranslator: Click this Chrome extension to open a translator tool. Copy/paste text, and then choose the conversion service of your choice. Choose from many languages.
- Google Translate: This Chrome extension displays the translation on the webpage you have selected. There is no need to copy/paste text.
- Note about other options: Many research databases and programs have translation services built into their tools. Be sure to look for options that are available in these platforms.



Reducing Distractions

Sometimes, the ability to read or listen is not the main obstacle to learning; rather, it's the other distractions that pull a student's attention away from the text or video. The tools on this list can help to reduce those distractions by reformatting the page and eliminating distracting (and often unrelated) content.

- Turn Off the Lights: This Chrome extension darkens webpages around YouTube videos to reduce distractions.
- Video Link: This easy-to-use website allows you to reformat YouTube videos to display without ads, comments, or suggested videos. Not only does it reduce distractions, but it removes potentially inappropriate content from student view.
- Mercury Reader: With this Chrome extension, you can eliminate ads and images for online articles; change text size or background color from white to black; and save, print, or export your new version as ePub.



Staying Organized

Digital documents are very convenient because they are often accessible from any device with an internet connection. However, the vast number of digital documents and resources can also be overwhelming. Students often get lost in a blizzard of content. While the tools on this list won't instantly make someone completely organized, they can help students keep track of their most important files.

- Microsoft OneNote: With this powerful digital binder, you can set up binders, tabs, and pages. Then, add all the content you'd like or link out to your resources to stay organized. The search feature makes it easy to find content in the binder.
- Google Keep: These virtual sticky notes and to-do lists can be private or shared.

- Google Chrome Bookmarks: Every browser has a bookmark feature. These are very useful and convenient for keeping track of important websites or virtual documents. You can even organize these into folders on your bookmark bar.
- Google Chrome Tabs: In the Google Chrome browser, you can pin tabs, so they stay fixed in your browser for easy access. Right-click on a tab to access this option.

Audiobooks

Reading is critical to academic success. If students struggle to read, they will also struggle when they must read to learn. Audiobooks can provide a scaffold to both challenges. Some audiobooks include text and pictures, and some are audio only.

- Epic!: Epic! offers free K–5 eBooks. Choose the "read to me" option on select books.
- Bookshare: This service is supported by the U.S. Department of Education and offers free eBooks to students with qualifying special needs. Books are available in audio, braille, large font, and other formats.
- Librivox: This website offers free audio versions of books in the public domain.
- Lit2Go: This website offers free audiobooks in .mp3 format.
- Note about other options: Libraries are a great source for free audio books, as well. Ask a local librarian for help if you are interested in this option.

Accessing Links

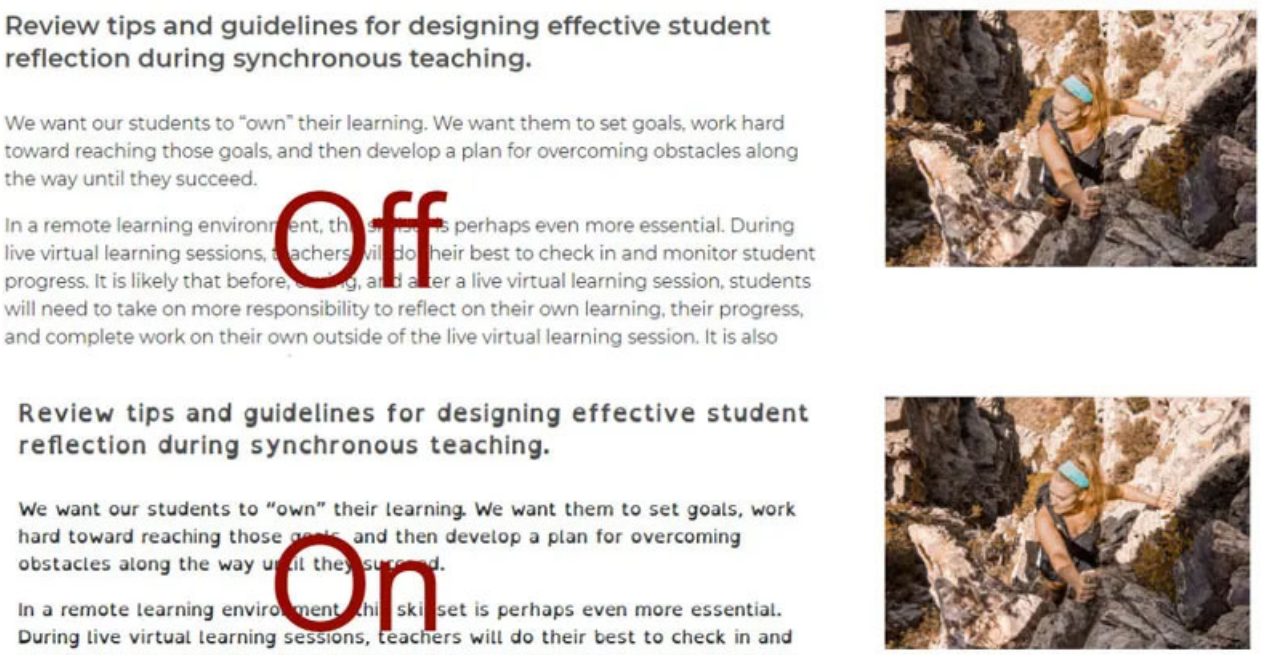
If students struggle to get to a digital resource, they are at a disadvantage before they even start reading, listening, or viewing the material. The easier we can make it for students to access our materials, the better. Consider the options below for simplifying the process of sharing links with students.

- Post web links on your learning management system or class website.
- Use a URL shortener, like Bitly, to reduce what students need to type into a browser address bar.
- Use a QR Code Generator to create QR codes that students scan instead of having to type the URL.

Dyslexic Font

Students who struggle with dyslexia can benefit from a unique font style.

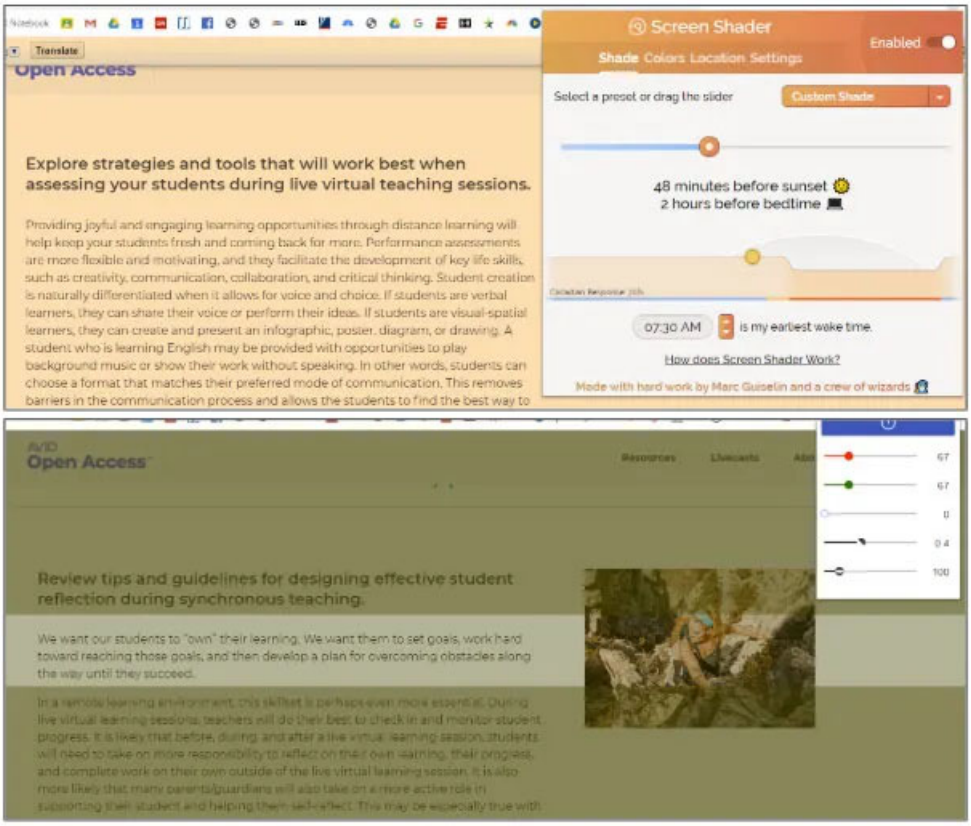
- BeeLine Reader for Chrome: This Chrome extension changes the font on websites to be more readable for people with dyslexia. It can be turned on and off by clicking the extension.



Reducing Eye Strain

Eye strain can be a problem when students are learning from a screen for extended periods of time. It can also be a concern for students recovering from concussions or other head trauma. The following tools may not eliminate eye strain, but they can often help.

- Screen Shader: Use this Chrome extension to tint your screen and ease eye strain.
- Visor: This is both a screen dimmer and reading aid that can help guide reading by highlighting one line at a time on the screen.



Predictive Text

Predictive text helps students who struggle to get ideas onto the screen by suggesting words or phrases to finish a thought. Students must still review the suggestion and determine if the prompted text is what they intend to write or not, but it can ease some of the cognitive burden in writing while also speeding up the writing process.

More and more platforms are offering predictive text options. A simple and common type of predictive text is autocorrect, commonly experienced on cell phones. You will often find it in search engines or search fields in computer programs, as well. A more robust version to aid in composing is available in Google's Gmail (called Smart Compose), and the feature can now be activated by organizations for use in Google Docs, as well. The Google Docs version is not available to users with individual accounts.

Some premium services, like Read&Write for Google Chrome, offer predictive text options, too.

Hardware and Operating System Features

Most computers, tablets, and phones have accessibility features integrated into the operating system. While the locations and specific menus will vary, most offer similar functionality. They also allow users to customize their device to best meet their unique needs. In schools that have 1:1 programs (where every student has a device), this can be especially powerful since the settings will not need to be reset each day.

- Chromebooks: To access these settings, press Alt + Shift + s or click "Settings" and choose "Advanced." Here, you can access many accessibility features, such as text-to-speech and screen magnifier options.
- iPads: Activate powerful accessibility features, such as voice control, color filters, Siri commands, shortcuts, and Guided Access—the latter of which is useful for limiting an iPad to one app at a time or for restricting some areas of an app.
- Microsoft: Microsoft operating systems offer a variety of accessibility features to support needs with vision, hearing, neurodiversity, learning, mobility, and mental health.
- Apple: As with Microsoft, Apple offers accessibility features to assist with vision, hearing, mobility, and learning.
- G Suite User Guide to Accessibility: Explore accessibility options that are integrated into G Suite products.

Topic Collections

This course is part of the following collections:

Design With Accessibility in Mind

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