



Idak • Learning Disabilities Association of Kingston

The right to learn, the power to achieve

Introduction to Assistive Technology “Strategies and Tools” - Part 1 Fall, 2018

v6

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2018-10-15

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Assistive Technology



<http://www.augsburg.edu/class/groves/assistive-technology/everyone/>

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Assistive Technology

Any item, piece of equipment, or product that is used to increase, maintain, or improve the functional capability of a student with a disability. They are tools that are a must for a student to complete a task.

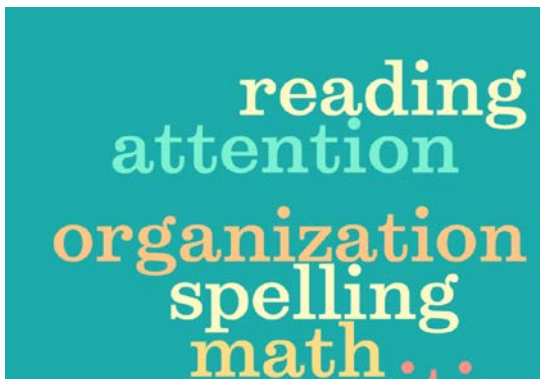
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Caveats

- Prices subject to change
- Apps available on some devices and not others
- These are NOT necessarily the “best” apps, but just some that we like for a variety of reasons. Be sure to read reviews and watch videos before purchasing.
- Check what your affiliation is using (e.g., school, work, colleagues)
- Let us know if there are any errors :)

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What Can Technology Help With?



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READING

What Ways Can Technology Help?

- **Read** text to me by word, sentence, entire page (text-to-speech), optionally highlight the spoken parts in different colours
- **Record voice** in audio format, link audio to written notes
- **Simplify** the text to read (e.g., Newsela!, Rewordify), but provide the same content level
- Verbally **ask for help** with reading: e.g., find word **definitions**
- **Scan** (OCR) print documents into text so they can be read to me
- Get reading material in **alternate formats** (video/audiobooks)

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eBooks & AudioBooks



• **Project Gutenberg (free)**

- Bookshare - available in Canada, free for anyone with a print disability that “severely inhibits or prevents” them from reading traditional print material. Apply through CELA online and your local public library.



• **Librivox**



• **Read2Go**



• **Voice Dream Reader (\$14.99)**



• **Dolphin EasyReader**

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Reading Material



Hoopla - audiobooks and ebooks available on loan. *



TumbleBook Library - picture books. *



OverDrive - similar to Hoopla but better for offline usage. *

(* free, but requires membership)

TumbleBook Cloud - for middle and high school. *



Epic! eBook and audio library for K-12 ...(subscription required, free



Newsela Student - K-12 levelled reading in non-fiction topics (free,

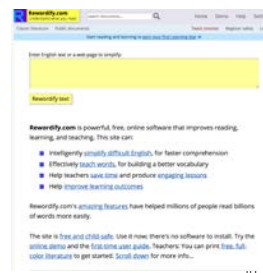
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READING Levelling



- **Rewordify.com** "Replace higher-level vocabulary with words that are easier" (online resource)



Try it out:
<http://rewordify.com>

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Ask for Help...

- Ask assistants for information (e.g., Siri, Alexa)



Outline



Reader View

- Declutter web pages (Chromebook: Outline - read without clutter; Safari browser: Reader View)



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Books

For reading and making notes



Using Books

- **Books**

- Text can be read to you.
- Highlight text, set a bookmark, add your own notes



- **Google**

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Scan Paper and Read To Me

Seeing Ai



- **Seeing Ai (free)**
Converts handwriting and typed text into speech, on the fly.

Office Lens



- **Microsoft Office Lens IOS / Office Lens - PDF scanner (free)**

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Scan Documents and Read

Scan paper to speakable text:

CamScanner, Scanner Pro 7, ReadIris, IRIScan to PDF, TextGrabber Real Time OCR

- Use camera to take picture of text and convert it to editable text which can be read to me.



- CamScanner: Document Scanner (\$ subscription)



- Scanner Pro 7 (\$5.49)



- Readiris (\$20.99)



- IRIScan to PDF (\$9.99)



- TextGrabber (Free and \$)

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Tips for Getting a Good Scan

- Good light (natural light from an outside window is best, in early morning or late afternoon)
- No overhead lights (avoids glare)
- Hold camera parallel to the page being "scanned"
- Hold camera steady

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Audio Tools - Text to Speech

Turn Text into Recorded Audio Files



- **Text2Speech.org** "Read aloud your text" and create an mp3 file for listening to later. (Choose the "play it" button for reading back. On a desktop computer, you can save the file to your computer for later playback.)

Try it out:
<http://text2speech.org>

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Read-to-me Tools



- **Claro ScanPen Reader (Free and \$)**



- **ClaroPDF (Free and \$)**



- **ClaroSpeak (Free and \$)** - type or paste text directly in and it will read it to you



- **Natural Reader (free, \$)**



- **VoiceDreamReader (\$20.99)**

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Resources

Newsela Student ages 8-18
<https://edshelf.com/tool/newsela/>

Rewordify ages 10+ web free
<https://edshelf.com/tool/rewordify/>

Epic! ages 3-12
<https://edshelf.com/tool/epic/>

Read&Write ages 6+
<https://edshelf.com/tool/read-and-write/>

also **Snapverter (free) and subscription** ages 6+
<https://edshelf.com/tool/snapverter/> for Google Chrome

Equatio
<https://edshelf.com/tool/equatio/>

READING RESOURCES

- **Khan Academy Kids** - IOS and Google Play
<https://www.khanacademy.org/>
Platform: Android, iPad, iPhone, iPod Touch, Kindle Fire, Fire phone

- **Getting Ready to Read**
National Centre for Learning Disabilities (U.S.)
<http://www.getreadytoread.org/>

GetReadytoRead.org is one of the National Center for Learning Disabilities' family of websites, along with NCLD.org, RTINetwork.org & Understood.org.
• Provides tools and tips for early literacy learners.

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Resources

CHROMEBOOK RESOURCES

Turn on Chromebook Accessibility Options

<https://support.google.com/chromebook/answer/177893?hl=en>

- Text-to-Speech: Turn on the screen reader or Select-to-speak
- Display: High contrast mode, screen magnifier, screen resolution, text size
- Keyboard: Sticky keys, on-screen keyboard, highlighting, keyboard repeat rate, word prediction
- Mouse and touchpad: Automatic clicking, tap dragging, large cursor (and change its size), cursor highlighting
- Audio: Play all sounds together through all speakers

Hear text read aloud

https://support.google.com/chromebook/answer/9032490?hl=en&ref_topic=9016892

Use the built-in screen reader

https://support.google.com/chromebook/answer/7031755?hl=en&ref_topic=9016892

Use Chromebook touch screen accessibility features

https://support.google.com/chromebook/answer/6103702?hl=en&ref_topic=9016892

Use Android apps with accessibility features

https://support.google.com/chromebook/answer/7126801?hl=en&ref_topic=9016892

Install Android apps on your Chromebook - Google Play Help

<https://support.google.com/googleplay/answer/7021273?hl=en>

CHROMEBOOK:

(Although a little dated, these may still be of interest.)

ChromeBook Apps and Extensions for Learners with Dyslexia (published 2016)

<http://www.callscotland.org.uk/downloads/posters-and-leaflets/chromebook-apps-and-extensions-for-learners-with-dyslexia/>

Chromebook Accessibility Features (published 2016)

<http://www.callscotland.org.uk/common-assets/cm-files/files/quick-guides/QG-1421254999.pdf>

ANDROID:

Android Apps for Learners with Dyslexia / Reading and Writing Difficulties (2015)

<http://www.callscotland.org.uk/downloads/posters-and-leaflets/android-apps-for-learners-with-dyslexia/>

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Alternatives To Writing

Multimedia:

Free and \$ Apps



- Explain Everything Whiteboard (\$5.99)



- Educreations Interactive Whiteboard (free)

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Alternatives To Writing

Digital Storytelling:

Free and \$ Apps



- Toontastic (bought out by Google) - draw, animate, and narrate your own cartoon

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Alternatives to Writing

- Create your own ebooks



- Book Creator - (IOS and Chrome extension and website version) create voice recording notes and add own pictures, text, drawings. Export as an epub, a pdf, or a video.

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MATH TOOLS

What Ways Can Technology Help?

- Calculators and Handwritten Equations turned into typed expressions
- Virtual Graph Paper
- Visuals and Manipulatives
- Learning Tools
- Puzzles and Fun

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Math Tools

- My Script MathPad (IOS free) - use your finger to "write" problem on the screen; turns into typed text; can add/delete parts. Copy text to use elsewhere.



- Mod Math (IOS free and \$) - virtual graph paper that keeps numbers lined up evenly, doesn't solve problem; designed by parents of student with dysgraphia



- Equatio - \$ - TextHelp Google Doc add-on. Formerly known as g(math). Students can use it to easily enter answers to math questions in Google Math worksheets created there.

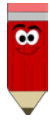


- Photomath (free) - scan math problems, recognizes handwriting, learn with step-by-step instructions, view graphs



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WRITING/EXPRESSIVE

What Ways Can Technology Help?

- **Listen** to words as I type them (text-to-speech)
- **Dictate** my words and turn into text (speech-to-text).
- **Predictive** typing (word suggestions to choose from)
- Check my **grammar**, find **synonyms for me**
- Get help with **spelling**: (e.g., ask Siri, dictionary and thesaurus lookup with a voice request)

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WRITING/EXPRESSIVE

What Ways Can Technology Help?

- **Listen** to work I have completed so I can “hear” where punctuation should be added.
- Use **mind maps** to create a graphical representation of my thoughts
- Export an **outline** from a mind map to start my writing
- Add (searchable) **handwriting**, and **draw** notes
- **Annotate** documents and pictures

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