THE HAMILTON INSTITUTE

AT WHEELER

Assistive Technology: Reading and Writing

By Beau Poppen-Abajian
***Middle School Resource Teacher,* The Hamilton School at Wheeler**

Assistive Technology

HAMILTON INSTITUTE AT WHEELER

"...any item, piece of equipment, or product system...that is used to increase, maintain, or improve functional capabilities of a child with a [learning difference]." *IDEA 2004*

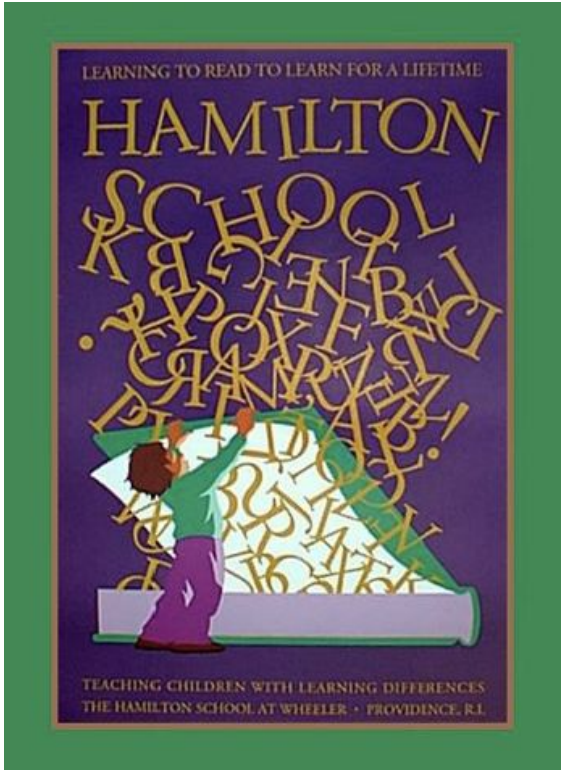
HAMILTON INSTITUTE AT WHEELER

"For people who struggle to read text, technology can be a lifeline. An audiobook, for example, allows them to experience a story they might not be able to access with a traditional book. These assistive technology (AT) tools for reading are inexpensive and easy to find. But with so many tools out there, it's not always easy to know which ones to use." Understood.org

HAMILTON INSTITUTE AT WHEELER

Assistive Technology Philosophy
The Hamilton School at Wheeler

"Hamilton is committed to the use and explicit instruction of digital assistive technology. These technologies provide students with access to content knowledge and vocabulary that matches their intellectual curiosity. This allows students to practice taught skills, acquire important information, and demonstrate knowledge. Technology use may vary at each grade level, taking into consideration students' needs."



HAMILTON INSTITUTE AT WHEELER

Why use Assistive Technology (AT)?

- *Improves fluency- accuracy, pace, expression- comprehension, vocabulary; written expression*
- *Evens the 'playing field' for LD students (pace, volume)*
- *Independence and lifelong learning*

When should students be introduced to AT?

- *Before they HAVE to use it*
- *'Learning to Read' shifts to 'Reading to Learn'*

How is AT blended with reading and writing?

- *Specific assignments (independent reading log)*
- *All subject areas in which decoding is not the goal*

HAMILTON INSTITUTE AT WHEELER

Tools

- *Computer/smartphone*
- *Headphones and microphones*
- *Noise-cancellers*

Implementation

- *Skills need to be explicitly instructed*
- *Reinforced and practiced often*
- *Choosing the right tool at the right time*
- *Troubleshooting*

Accessibility

- *Many apps/programs require licenses, Wifi or data*
- *Can tools be used at home? The next school?*

Perceptions and "Myths"

- *"I didn't read. I listened."*
- *"Why do THEY get to Voice-Type?!"*
- *"Will she ever learn to read / spell?"*
- *"Will they be ready for high school?"*

Vocabulary Preview

HAMILTON INSTITUTE AT WHEELER

Audiobooks

Speech-text

Ear reading

Extensions

Voice-typing

Text-speech

Apps

Eye reading

“App smashing”

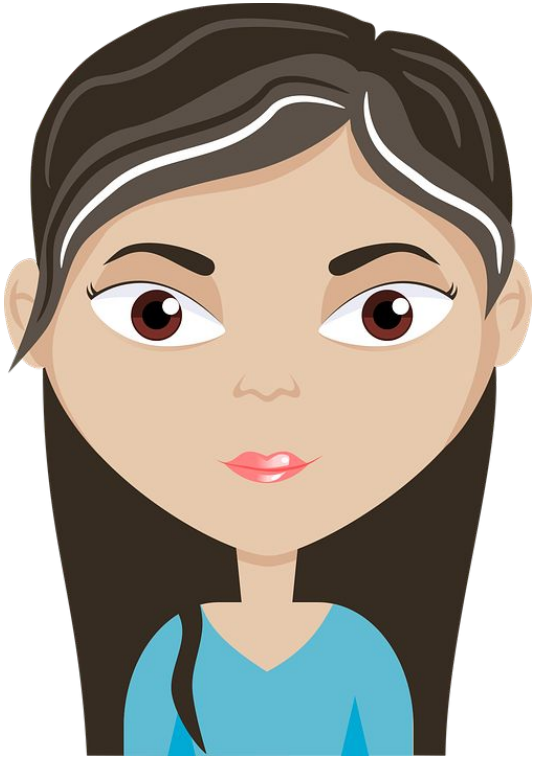
Multisensory

HAMILTON INSTITUTE AT WHEELER

ear

+

eye



HAMILTON INSTITUTE AT WHEELER

Simultaneous Eye and Ear Reading (SEER)

Or just “ear reading”

HAMILTON INSTITUTE AT WHEELER

"Students with dyslexia are often smart enough to handle vocabulary at a much higher level than what they can read. Ear reading helps bridge that gap. With audiobooks, students can take in the same books that their peers are reading—just in a different format."

IDA 2015, Jamie Richardson, Amy E. Vanden Boogart, and Denise Douce

HAMILTON INSTITUTE AT WHEELER

HAMILTON
INSTITUTE
AT WHEELER

read&write

HAMILTON INSTITUTE AT WHEELER

Word Prediction

Picture Dictionary

Text to Speech

Audio Maker

Screen Mask

Speech to Text

Translator

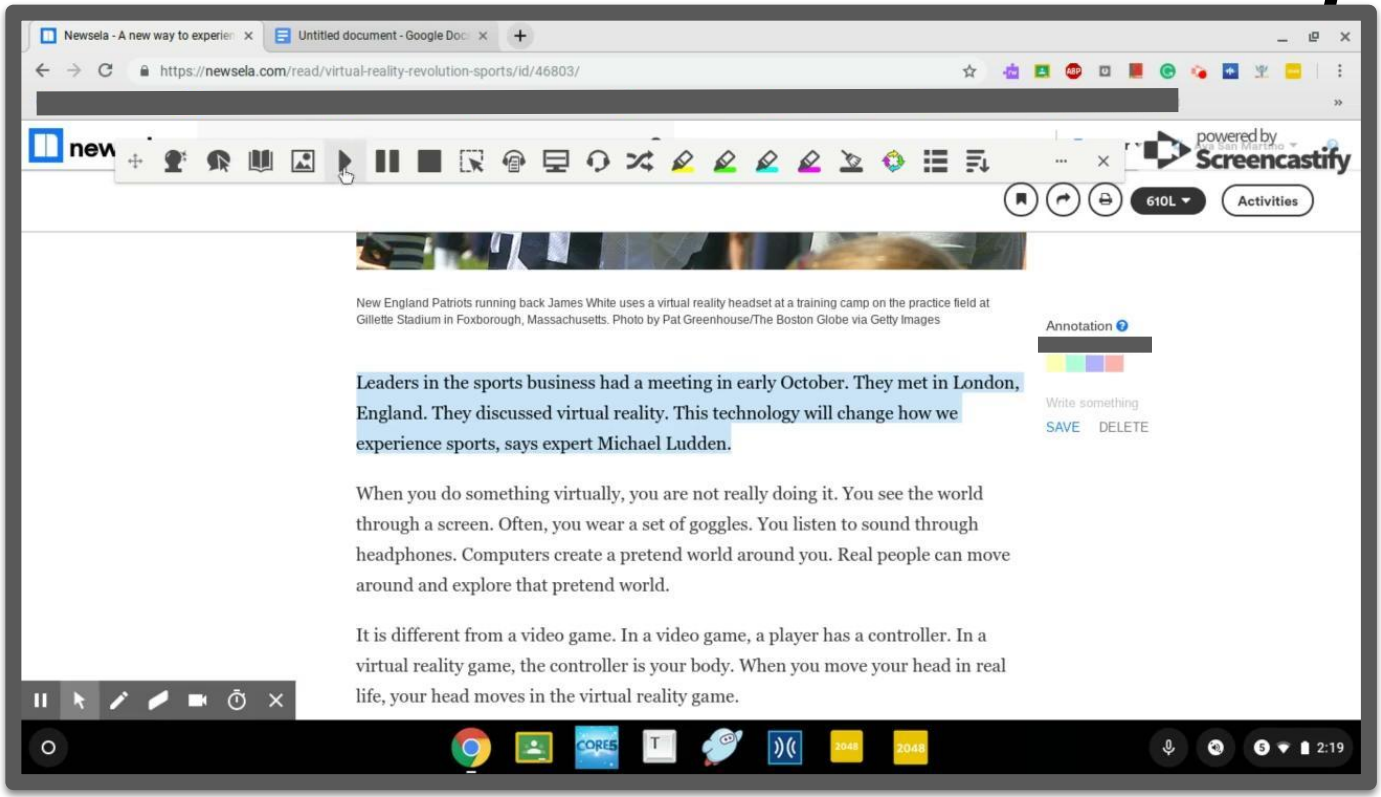
Highlighter

Read Along

Reading, Writing and Comprehension Support

HAMILTON INSTITUTE AT WHEELER

Read & Write / *texthelp*



HAMILTON INSTITUTE AT WHEELER

Read & Write / *texthelp*

Speechify

Multiple Ways to Listen

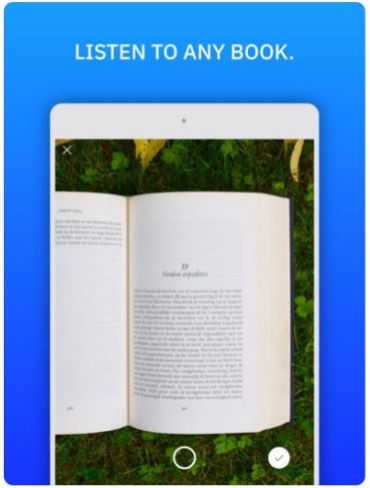
HAMILTON INSTITUTE AT WHEELER

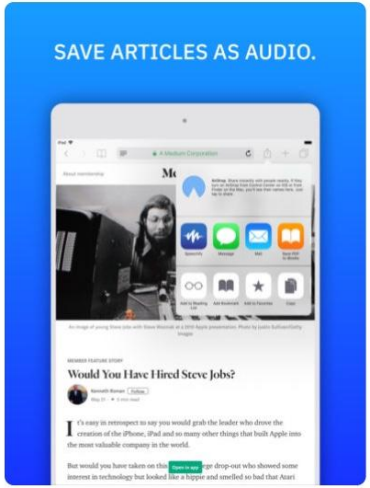
1. Copy/paste

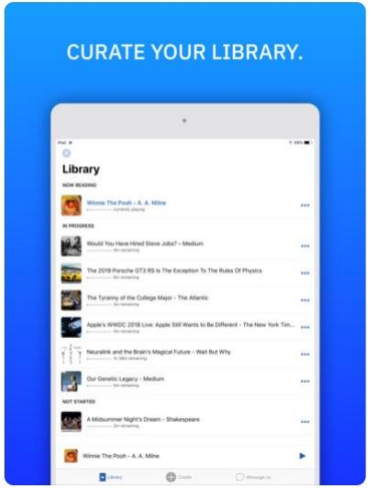
   Text or link

2. Load PDF

3. Camera



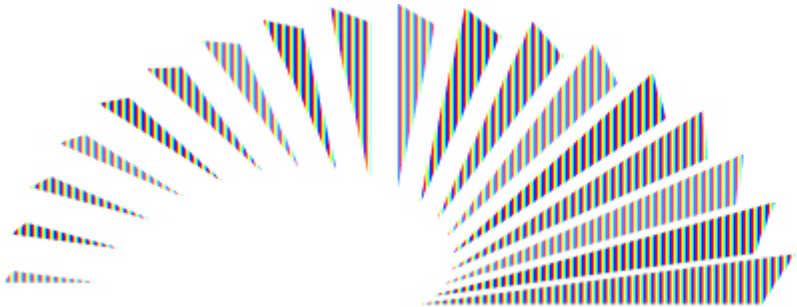




HAMILTON INSTITUTE
AT WHEELER

Text-Speech App or Chrome Extension

HAMILTON
INSTITUTE
AT WHEELER



Booksl

Bookshare

HAMILTON INSTITUTE AT WHEELER

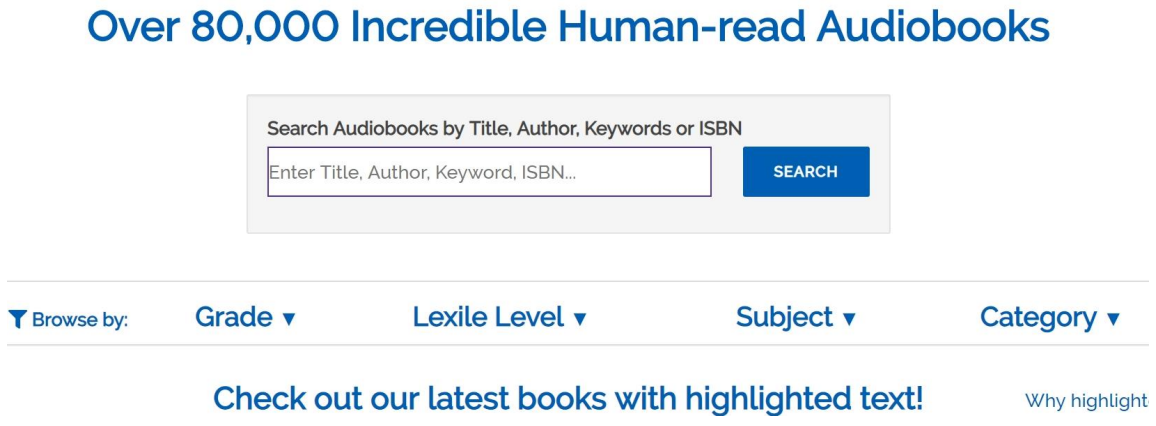
1. Ebooks, mags, newspapers
2. FREE for LD
3. Book reader app to listen or app smash with Speechify

HAMILTON INSTITUTE
AT WHEELER

Human Voice Ear and Eye Reading

HAMILTON INSTITUTE AT WHEELER

1. Popular Titles
2. Textbooks
3. Human-voice
4. Speed
5. VOICEText



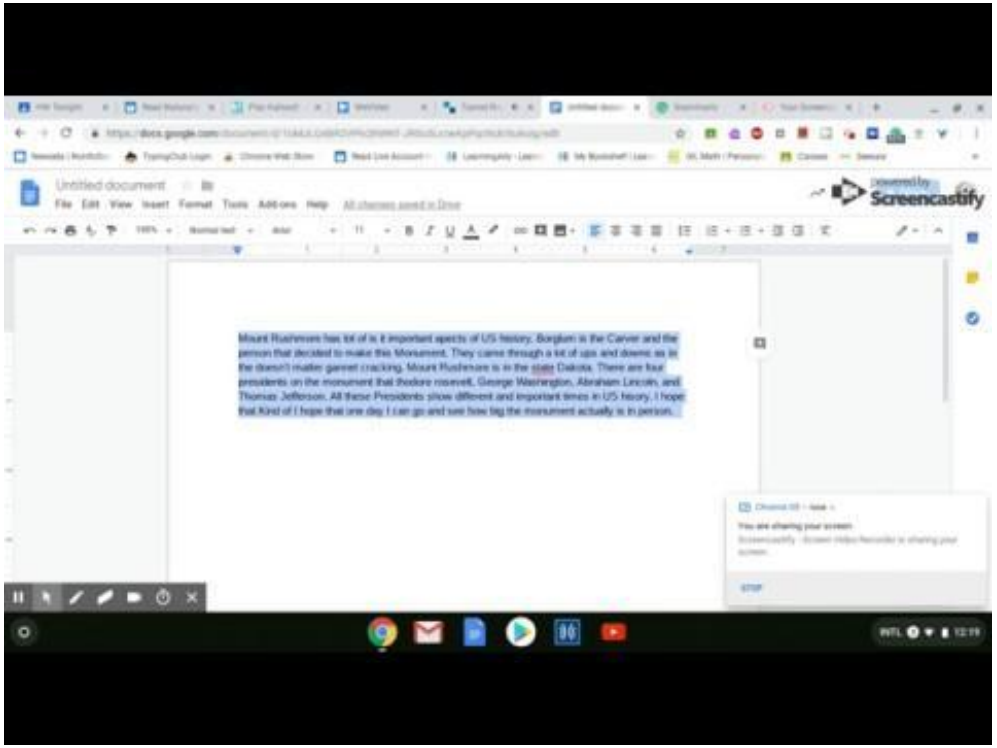
HAMILTON INSTITUTE AT WHEELER

Independent Reading with Learning Ally

HAMILTON
INSTITUTE
AT WHEELER

HAMILTON INSTITUTE AT WHEELER

Grammarly



Editing Chrome Extension or Web-Service

HAMILTON INSTITUTE AT WHEELER

Read Naturally® Live

Read Naturally *Live*

HAMILTON INSTITUTE AT WHEELER

Check out their website to learn more about how it works and to see what the platform looks like.

There's a 60-day free trial!

Fluency and Comprehension App or Web-Service

HAMILTON INSTITUTE AT WHEELER

Read Naturally Live and App Smashing

- Hear Vocabulary
- 'Read Along'
- Reading Fluency
- Comprehension

- Increase listening speed with audio-extension
- Voice-Type responses
- Grammarly for editing quiz responses
- Proof-*listen* with Read&Write or Speechify

Grade	Percentile	Fall WCPM*
3	90	128
	75	99
	50	71
	25	44
	10	21
4	90	145
	75	119
	50	94
	25	68
	10	45
5	90	166
	75	139
	50	110
	25	85
	10	61
6	90	177
	75	153
	50	127
	25	98
	10	68
7	90	180
	75	156
	50	128
	25	102
	10	79
8	90	185
	75	161
	50	133
	25	106
	10	77

HAMILTON INSTITUTE AT WHEELER

read&write

Read Naturally® Live

grammarly

Speechify

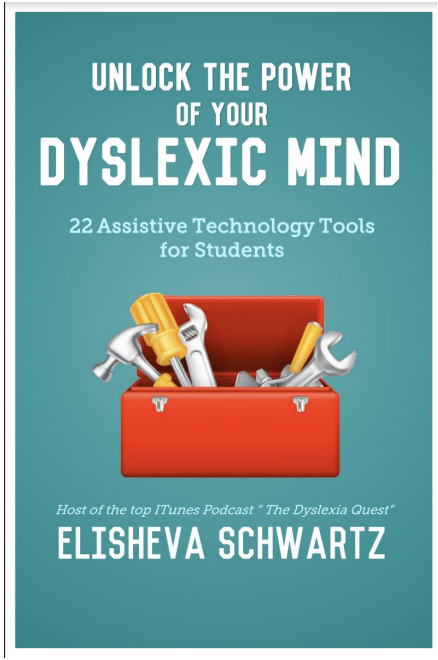
Learning Ally

Bookshare

HAMILTON INSTITUTE AT WHEELER

How could you incorporate Assistive Technology to promote reading and writing?

HAMILTON INSTITUTE AT WHEELER



Check out this resource!

22 Assistive Technology Tools for Students

Credit: Elisheva Schwartz

HAMILTON INSTITUTE AT WHEELER

Further Resources...

Yale Center for Dyslexia: Tech

Jamie Martin, AIM Institute

edtechupdate.com

Understood.org

Dyslexic Advantage Magazine

dyslexiaida.org

Stay Connected!

beaupoppen-abajian@wheelerschool.org

Follow **@thehamiltonschool** on **Instagram**

Follow **@HamFamProv** on **Twitter**

wheelerschool.org/hamilton-institute/

Free early reading screenings and learning opportunities throughout the year!