Why is Assistive Technology So Important?

Joan L. Green, M.A. CCC-SLP Assistive Technology Advisor and Speech-Language Pathologist www.innovativespeech.com



AT is an essential part of my life and SLP practice

- As a speech-language pathologist, I've been helping children and adults for 37 years.
- Early in my career, I primarily helped stroke and brain injury survivors to improve communication and thinking.
- Tech offered independent practice opportunities with immediate feedback,
 a game-changer for families wanting faster and more complete progress.
- As I raised my four kids, I started helping friends help their kids with assistive tech- very helpful for kids with ADHD, speaking, understanding, reading and writing challenges.
- It's great for overwhelmed students in higher ed and adults juggling multiple demands.
- Assistive tech can create life changing immediate changes to improve quality of life!



We need to do more to empower others with challenges

- Tech helps my elderly parents and others with challenges.
- Not enough is done to support seniors with tech.
- Features keep improving on our everyday devices.
- Now with AI, potential benefit is even greater!
- Certain segments of society have been left out- especially adults with developmental disabilities and older adults. They need our help!
- We need to do more to get the word out about using AT to improve lives.
- Assistive tech implementation involves not just the devices, apps and features- but skilled training and follow up is essential for success.
- It's hard to keep up and know which tech be a good fit for a person's needs.



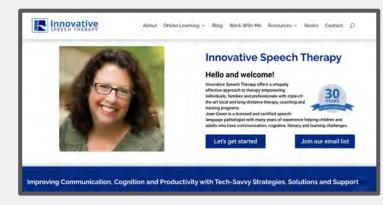


IST (Innovative Speech Therapy)

www.innovativespeech.com

- <u>Provide tech advice</u> and help with implementation strategies to support communication, cognition, literacy, learning, organization and getting things done!
- Offer 1:1 virtual services- all ages and abilities
- Collaborate with teams for professional development and tech implementation
- Get going with Google Course
- ElderTech Advisor Course and Network
- Library of tech webinar recordings
- Assistive Technology Network of Greater Washington







Federal investments are critical to empower constituents to leverage the benefits of AT

By definition, AT is "Assistive technology (AT) is any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities."

Need more training and support for people left behind by tech or unaware of all that it can do!















Communication, Cognitive & Learning Challenges

- Speaking
- Understanding
- Hearing
- Reading
- Writing
- Thinking
- Paying attention
- Remembering
- Managing time
- Executive Functioning



- Apraxia
- Dysarthria
- Aphasia
- Intellectual disabilities
- Dysgraphia
- Dyslexia
- Mild Cognitive Impairment
- Dementia
- Auditory Processing Disorder
- ADHD
- Developmental Delays
- Expressive Language Disorder



Leverage tech's benefits- find the ideal balance

Maximize positive impact of strengths

Minimize negative impact of weaknesses





New Tech Mindset

"How can tech help support a person's strengths and minimize weaknesses?"

"How can family, schools, employers and a person's "team of support" collaborate for strategic tech implementation?





Universal Design- built in accessibility features

Help people of all ages access information. express thoughts and knowledge, stay engaged and participate.

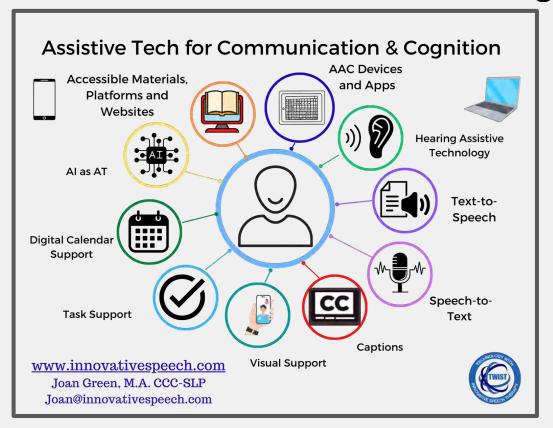








Assistive Tech for Communication and Cognition





AAC Devices and Apps

Dedicated devices for AAC-Augmentative and Alternative Communication.

- Pictures
- Symbols
- Words







LAMP Words for Life



Project-Core



Speech Assistant AAC AppiOS and Android

Hearing Assistive Technology

- Hearing aids- amplify certain frequencies,
 bluetooth pairs AT to it- microphones, TV, phone
- Flashing lights and vibration
- Over-the-counter for mild-mod loss
- iOS- Live Listen, customize airpods
- Get notified of unsafe hearing levels









Text-to-Speech/ Read Aloud

- It's a feature on all current computers, phones and tablets for free!
- It's also available for browsers- Edge, Chrome and Safari.
- The process depends on the device, operating systems and format of the material.
- There are lots of options!
- Great for people who need help with reading- small print, speak another language, vision impairment.
- Helps with proofreading





Immersive Reader- Edge, Microsoft 365

- View > Immersive Reader
- Read Aloud- while highlighted
- Change the voice and speed
- Change text preferences
- Declutter the page on websites- if reader view available



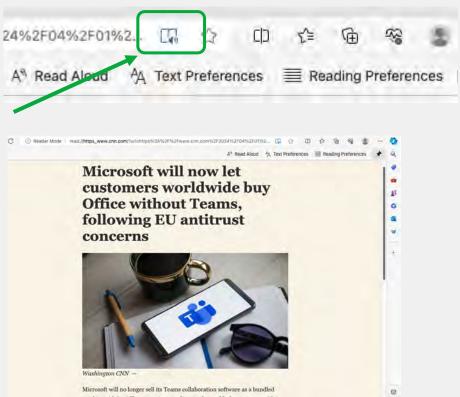




Declutter website pages-reader view- Safari, Edge,

Chrome Extensions







Google Lens



- This app uses the camera on a tablet or smartphone
- On iOS use the Google app and tap on the Lens icon.
- Select either "search" or "text" on the bottom depending on your version.
- Take a picture of text in environment (a sign, book, handout), tap the captured text and it reads it out loud immediately! It can also translate.
- Free





Speech-to-text/ Speech Recognition

- Helpful when typing is difficult.
- It's a feature on all current computers, phones and tablets for free!
- Whenever there is a cursor blinking, you should be able to enter text with your speech.
- The process depends on the device, operating systems and format of the material.
- Mobile devices- look for microphone in keyboard
- Google Docs- Tools> Voice Typing



Voice Typing in Google Docs



##Shift+C

New

Ctrl+年0 Ctrl+発U

26+Option+Shlft+)

3C+Shift+Y

##shift+S

Tools Add-ons Help

Citations

() Script editor

Preferences

Accessibility settings

Linked objects Dictionary

Translate document

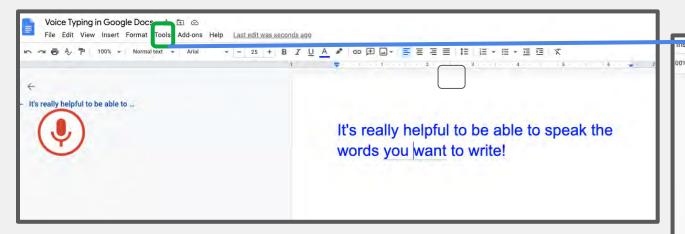
Voice typing

Explore

Spelling and grammar Word count

Review suggested edits

Compare documents



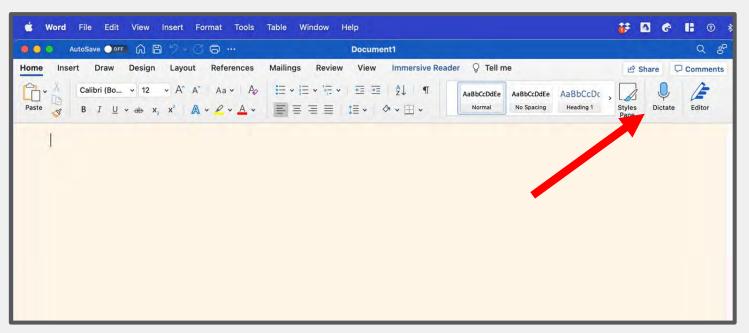
Docs.google.com

Tools Menu





Dictation in MS Word 365 and Word for Web





Device Accessibility

All current computers & mobile devices can turn your speech into text







Windows logo + H



Mac-Fn Fn



Microphone icon or Search + d

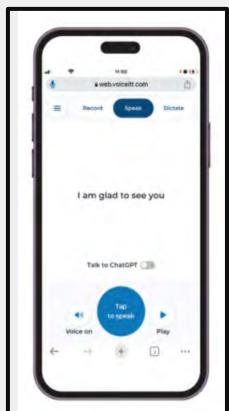


Shortcuts for dictation on computers

New Speech Recognition for Nonstandard Speech

<u>Voiceitt2</u>- Automatic speech recognition for people with speech disabilities, aging voice and accents. <u>RAZ Memory Cell Phone</u>

Google's Project Relate - App to transcribe text, repeat speech, or use Google Assistant





Captions & Transcriptions

Captions are free but the feature may need to be set up in advance.

Transcription may have errors. The quality is dependent on the speaker and environment.











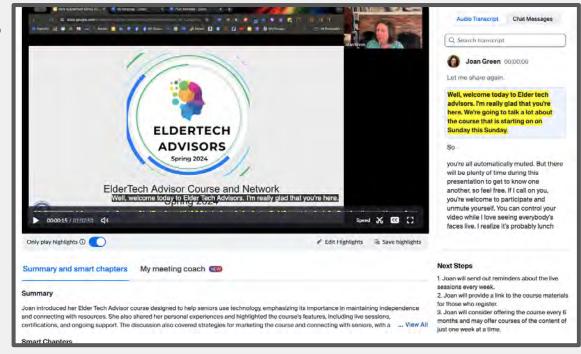






Terrific Note-taking tools with Al

- Meeting summaries
- Smart recordings
- Action steps
- Images
- Study tools
- Glean
- Otter.ai
- Zoom





Visual Supports

- Use built in features on our devices to support communication, memory, and independence
- Learn the language of tech
- Photos
- Calendar
- Maps
- Contacts
- Video













Simpler Video Call Options









ViewClix



Amazon's
Echo ShowDrop-in

Sociavi360

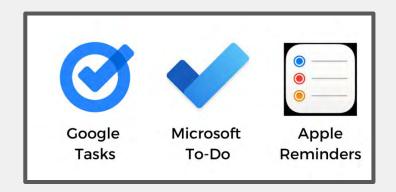


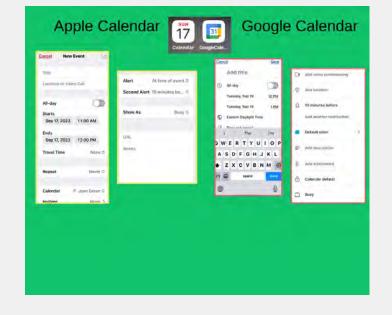
Onscreenuse TV



Task and Calendar Support

- Help with communication and memory.
- Reduce stress and support mental health.
- Stay digitally organized and plan ahead
- Break projects into small tasks
- Predict time tasks will take
- Check them off when complete



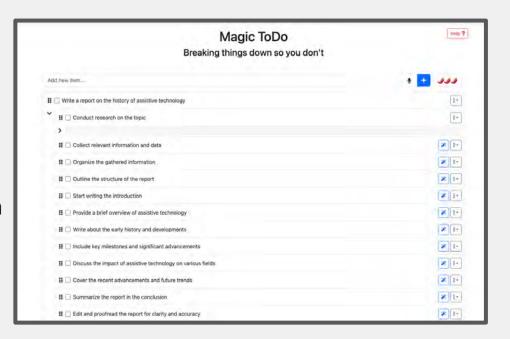




Goblin Tools

https://goblin.tools/

- Magic ToDo- Helps break down tasks
- Free
- Web based
- Android & iOS app



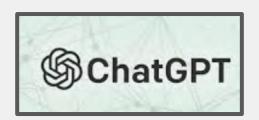


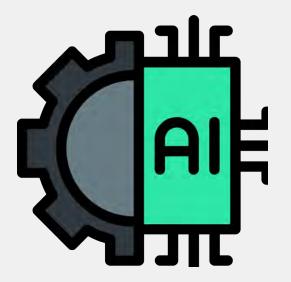




Al as AT

- Al can't be ignored or turned off
- Emerging AI is evolving to be another type of assistive technology
- How can we leverage potential benefits and minimize harm?
- We need to "future proof" our students and help set up adults for success.







Al- Profound Impact on Education, Employment and Life

It's already in many of the tech tools we use

- Closed captioning
- Translation tools
- Summarization Tools
- Website searches
- Word prediction
- Speech recognition
- Adaptive learning platforms





Accessible Materials, Platforms and Websites

- Bookshare.org
- Learning Ally
- <u>Libby</u>
- Hoopla
- Accessible PDFs
- Accessible Websites
- <u>CAST.org</u>- Learn about Universal Design for Learning
- ATIA- Assistive Technology Industry Association
- AT3Center











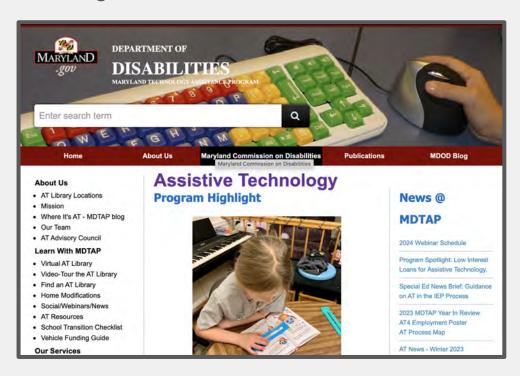






State AT Act Programs

- Maryland Technology Assistive Program
- MD- TAP
- Device Loans
- Device Demos
- Device Reutilization
- Financial Loans
- Other State Financing





Let's stay in touch!

Joan Lipman Green

www.innovativespeech.com

Joan@innovativespeech.com

Facebook- Innovative.Speech.Therapy

FB Group- IST Tech Savvy Solutions

LinkedIn- Joan Lipman Green

Instagram- joanlipmangreen

Free 15 min phone consultations



