

Job-Driven Technical Assistance Center (JD-VRTAC): Technology for Supporting Adults with Learning Disabilities

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Technology for Independence



Job-Driven Center Goals

Improve skills of state VR agency staff, other rehab professionals & providers of VR services, who are trained to provide “job-driven” VR services & supports to PWD, employers & customized training providers.

Four Topic Areas:

1. Business Engagement
2. Employer Supports
3. Labor Market Information (LMI)
4. Customized Training Providers

www.explorevr.org



Job-Driven Center Partners

Institute for Community Inclusion (ICI) at Univ. of Massachusetts,
Boston

In Partnership with:

- Jobs for the Future (JFF)
 - Univ. of Arkansas
 - Univ. of Washington
- Council of State Administrators of Vocational Rehabilitation (CSAVR)
 - United States Business Leadership Network (USBLN)
 - Association of University Centers on Disabilities (AUCD)

In Collaboration with:

- National Council of State Agencies for the Blind (NCSAB)
 - Technical Assistance Center Collaborative



Washington Assistive Technology Act Program



- Provide Assistive Technology resources and expertise to all Washington residence with disabilities to aid in making decisions and obtaining the technology and related services needed for employment, education and independent living
- Each state has a federally funded and mandated AT program that provides comprehensive statewide services



How the AT Act Programs Can Help

- Low cost or free programs for consumers
 - Device Demonstration
 - Device Lending
 - Device Reutilization
 - Alternative Financing
 - Information and Referral



Webinar Objectives

- Understand barriers to employment caused by learning disability and identify 3 assistive technology solutions to help compensate for those barriers.
- Be able to identify different hardware solutions and how to implement them.
- Be able to identify in what situation individuals should use dedicated literacy software vs. mobile apps to support reading and writing to achieve functional outcomes.



Decision-Making Process in Selecting AT

- Identification of Need
- Functional Assessment
- Identify Options
- Decision-making
- Acquisition and/or treatment
- Customization & training
- Outcome measurement & re-assessment



DEDICATED SOFTWARE FOR READING AND WRITING



Software Examples

- Reading
 - ReadPlease!
 - NaturalReader
 - Snap and Read
- Writing
 - Dragon Naturally Speaking
 - Inspiration
 - Ginger (grammatical support)
- Both
 - Read&Write
 - WordQ/SpeakQ
 - Solo Suite
 - WYNN
 - ClaroRead
 - Kurzweil 3000
 -and many others



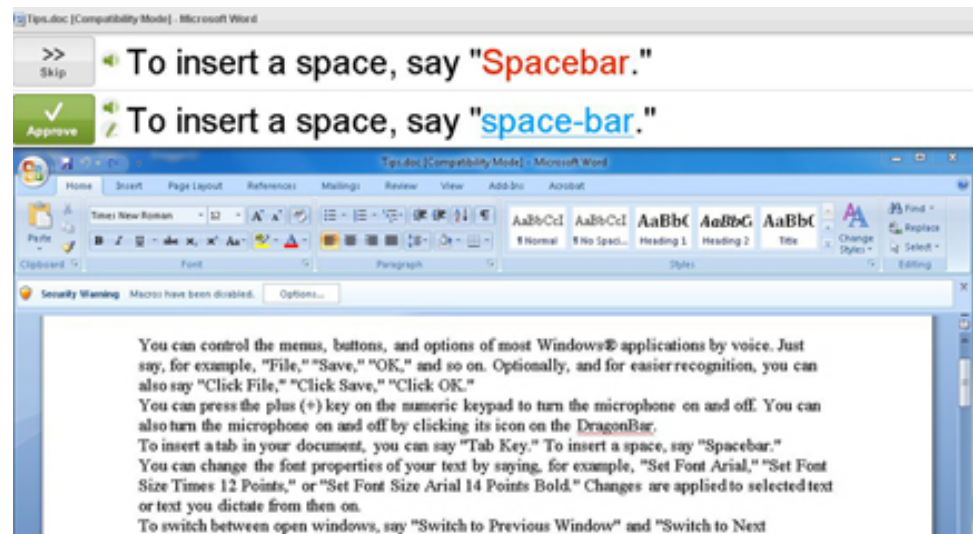
Features to Consider

- Quality and choice of voices
- Easily adjustable speed
- Flexibility of appearance
- Study skills features (voice and text notes, highlighting)
- Ease of using different file formats (HTML, PDF, MS Word)
- Quality of scanning and OCR (if included)



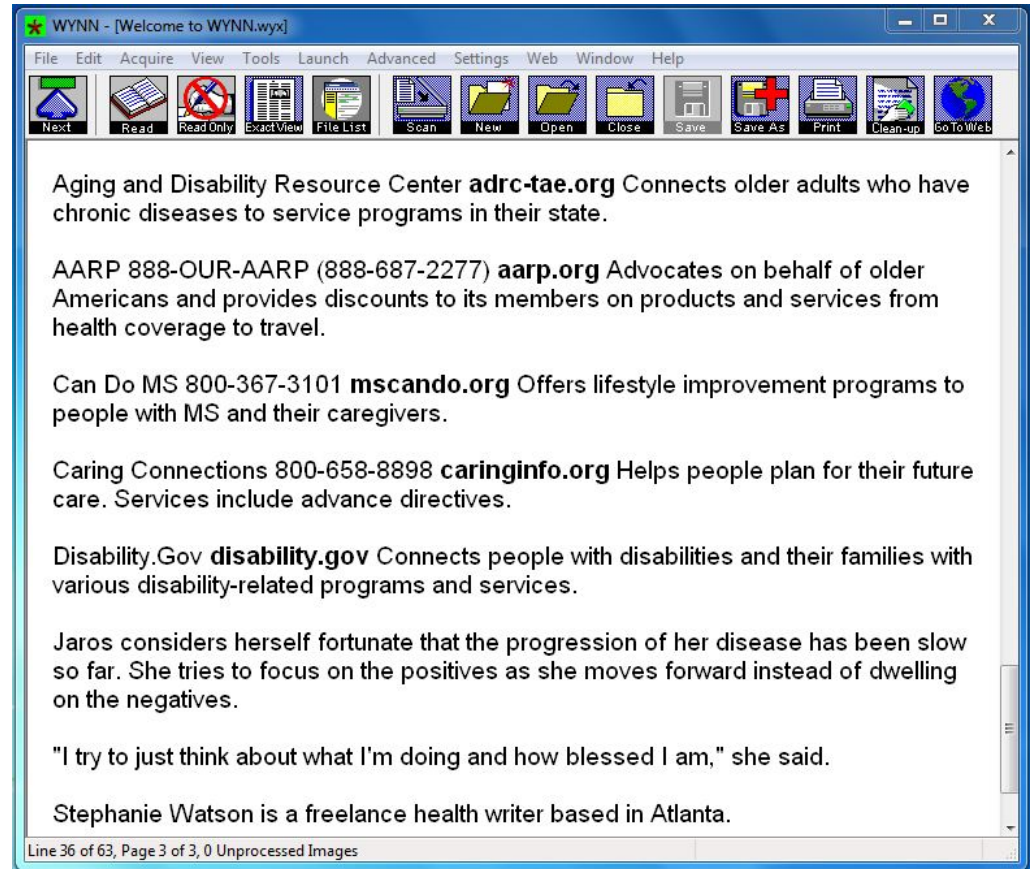
Floating Toolbar

- Allows flexibility to navigate across programs
- Simple interface



Stand Alone Products

- Web browsing from within the program
- Documents have to be saved as proprietary file type
- Tend to be more full featured



Additional Supports for Writing and Studying

- Text-to-Speech
- Highlighting
- Concept mapping and outlining
- Grammar
- Dictated and typed notes
- Support for homophones



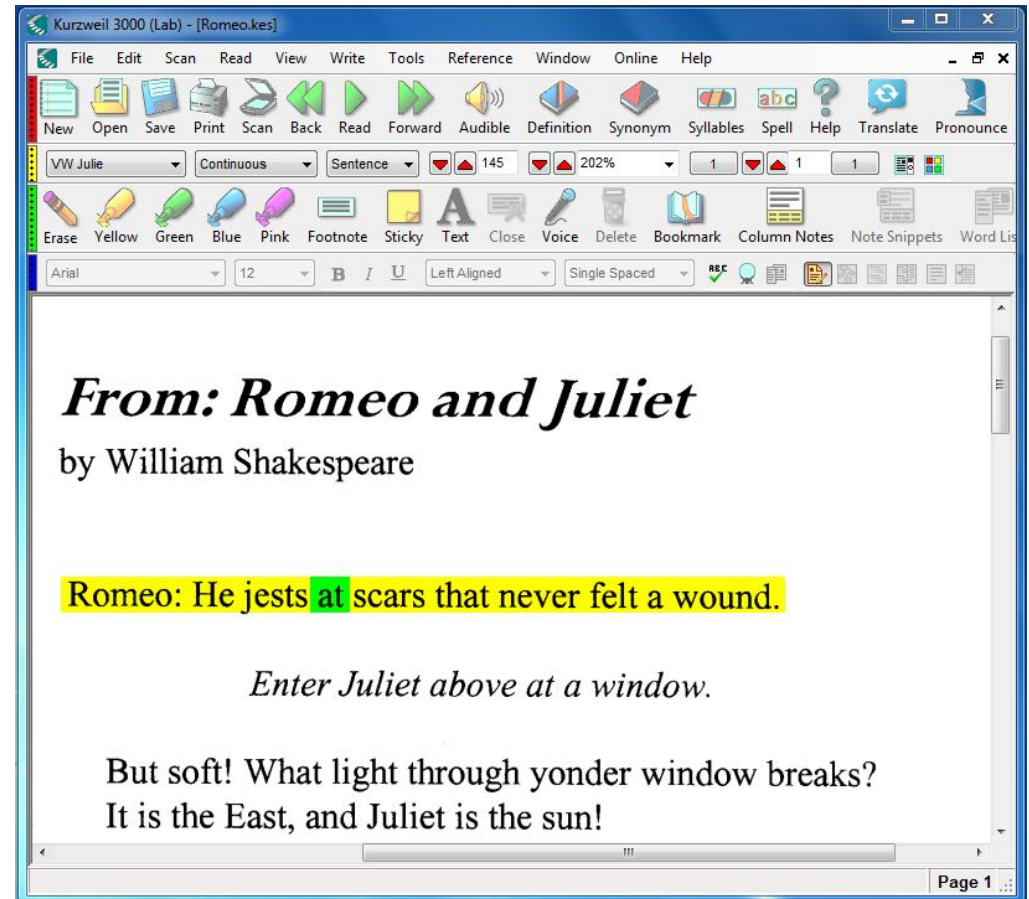
Speech Output: text-to-speech

- Good for auditory processing of content
- Helps people learn the proper pronunciation of words
- Helps people hear mistakes in their writing



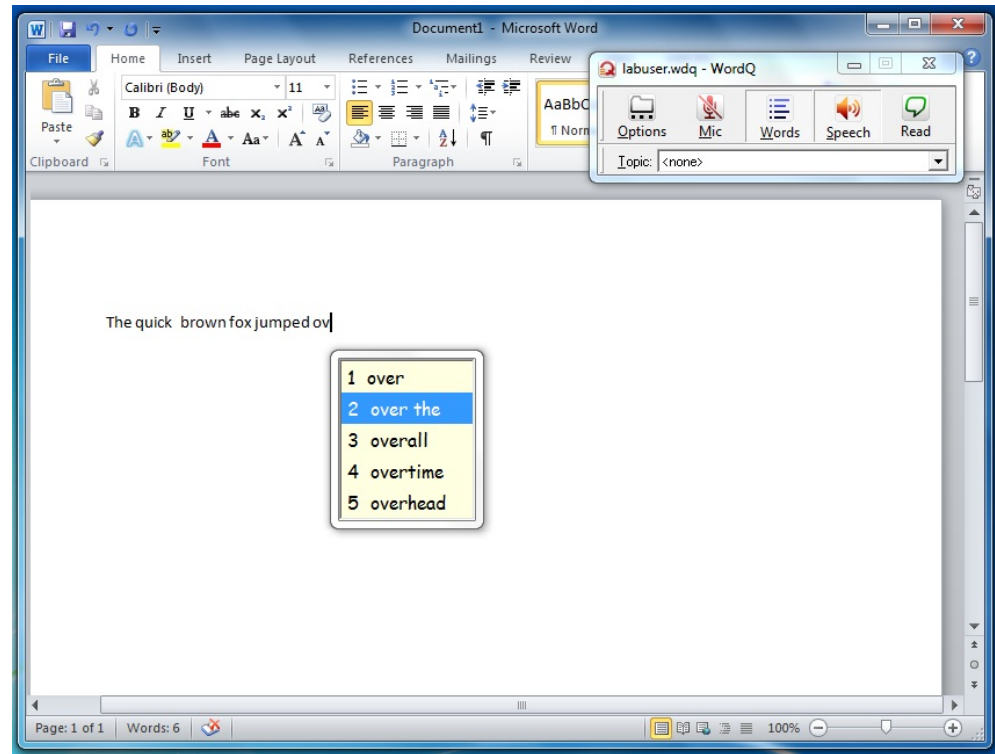
Highlighting

- Masking: Bimodal highlighting
- Used for people who need both visual and audio feedback
- Highlights words in conjunction text-to-speech



Word Prediction

- Assists with text entry & spelling
- Ability to recognize correct word
- Trade off: speed for accuracy
- Speech feedback



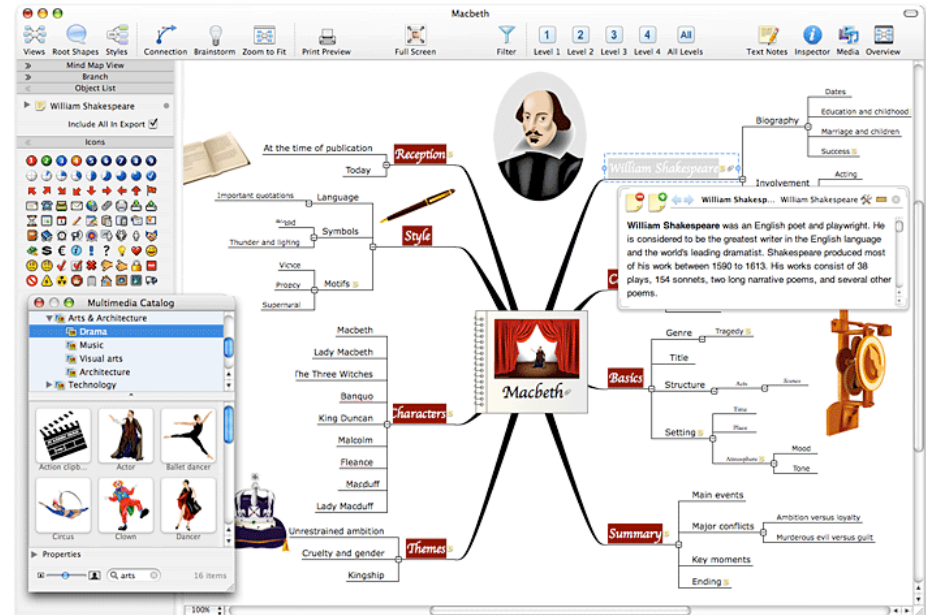
Concept Mapping

- Can help with organizing and communicating ideas



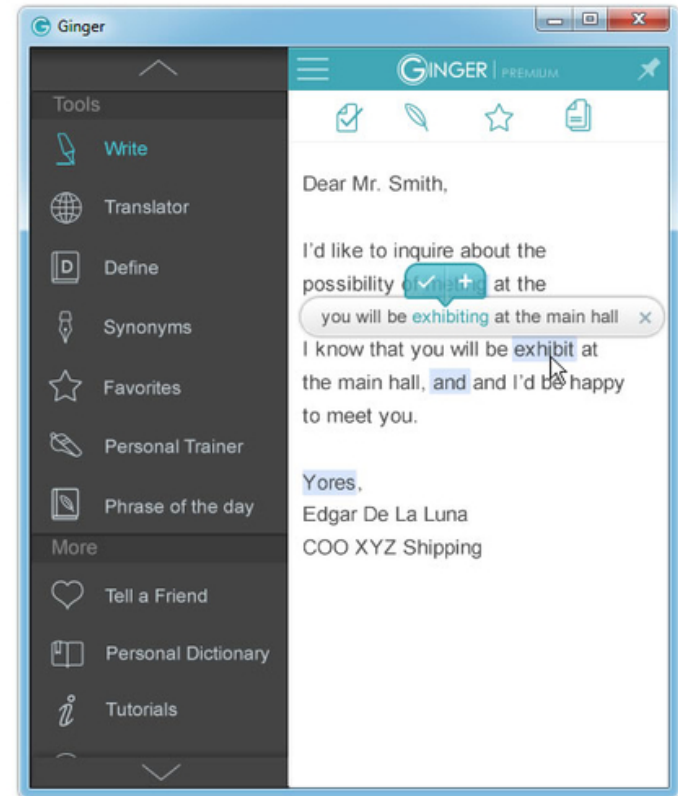
Concept Mapping

- MindView by MatchWare
- Integrates with MS Office
- Templates, Examples and Video Tutorials
- Collaboration Options
- Cite sources by linking to websites; text files



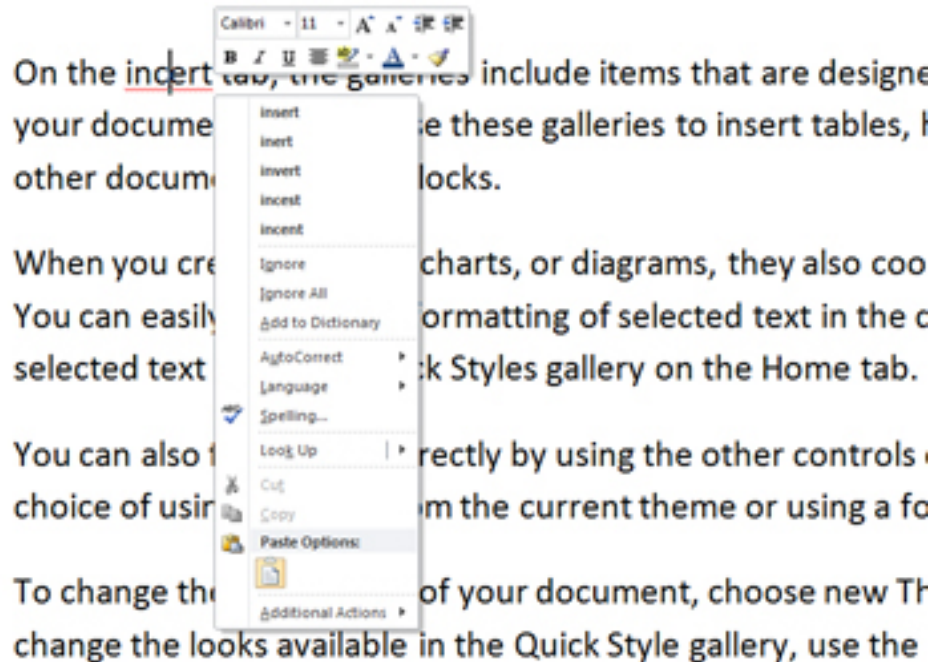
Ginger

- Grammatical and spelling support
- Proofreads documents and emails
- Premium version: Text-to-speech, language translation contextual definitions and synonyms



Word Processors

- Auto Text
- Auto Correct
- Thesaurus
- Most effective with explicit instruction on how and when to use the features



Speech Recognition

- Less flexibility
- Training and practice required
- Speech feedback and playback
- Most effective when combined with teaching writing organization and planning
- Nuance Dragon Naturally Speaking vs. Windows Speech Recognition



Speech Output

- Find different errors than spelling checkers
- Included in talking word processors (Write:OutLoud, WYNN), some speech recognition programs (Dragon Naturally Speaking)



DEDICATED DEVICES



Note Taking



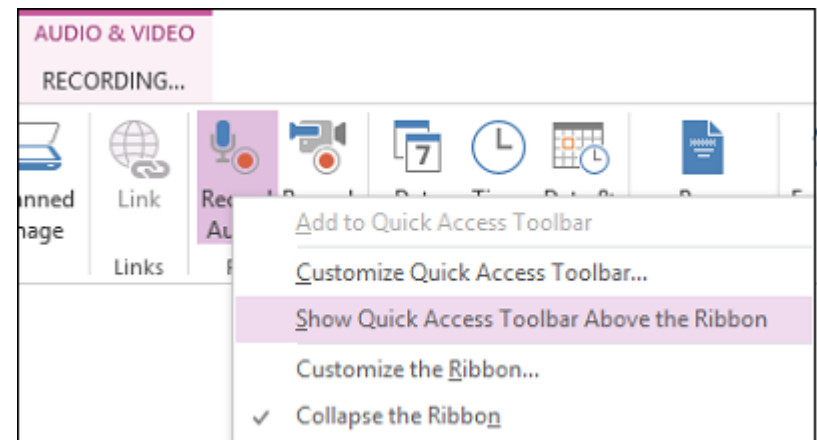
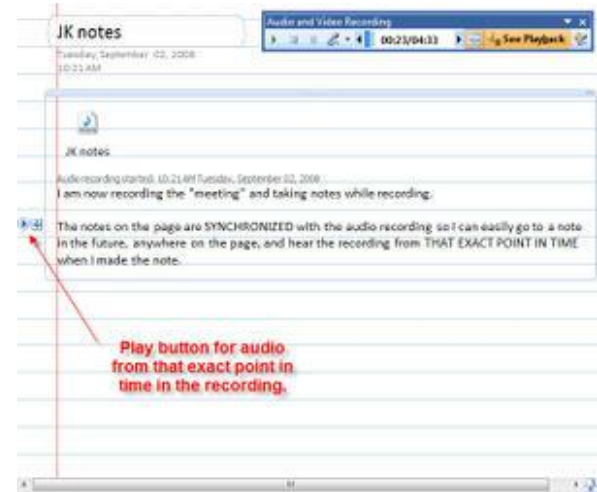
- Livescribe SmartPen
- Three models offer different features
- Records as you write
- Content and recording are linked

http://www.livescribe.com/en-us/media/pdf/livescribe_smartpens_comparison_chart.pdf



Note Taking

- OneNote
 - Record audio or video clips
 - While taking notes
 - Audio and video are linked to notes



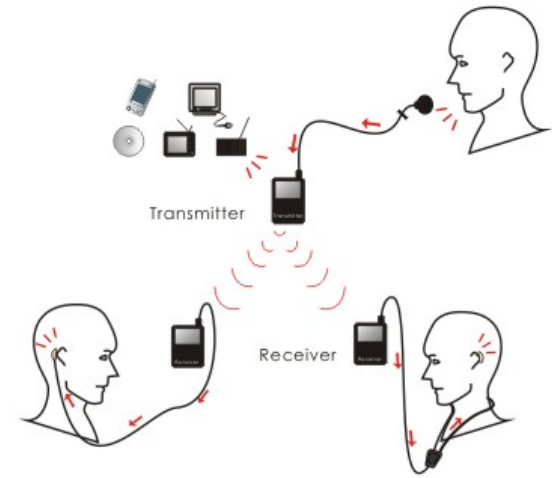
Optical Character Recognition (OCR)

- Converts printed text to an electronic image
- Text to speech
- Many device options
- Can be expensive



Personal FM Systems

- Students with learning disabilities may benefit from using a FM device in the classroom
- Delivers the speaker's voice directly to listener's ear
- Has benefited some students who have issues with focusing on the teacher



Amazon Echo \$179.00

- Digital Assistant
- Hands-free speaker you control with your voice
- Echo connects to the Alexa Voice Service to provide information, music or services
 - Audibly answers your questions
 - Able to play thousands of songs
 - Reads audio books
 - Makes lists or sets timers
 - Activates Smart Home Devices

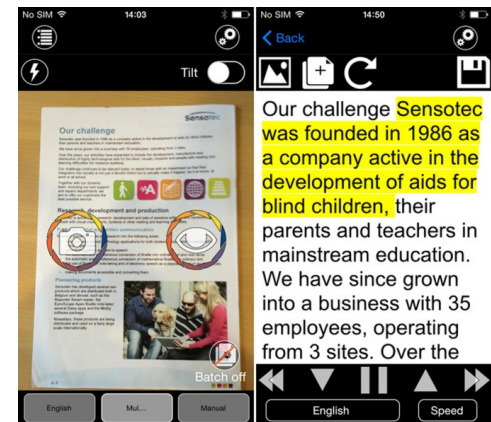


MOBILE APPS



Kurzweil KNFB Reader App

- Converts printed text-to-speech
- Text highlighting feature
- Supported devices
iPhones 6+ thru 4s
And 5th generation iTouch
- \$99



Perfect OCR: Document Scanner

- Use built-in camera to scan document
- Edit, copy and store the recognized text
- e-mail documents as PDF files with text
- Once scanned use text to speech to read content

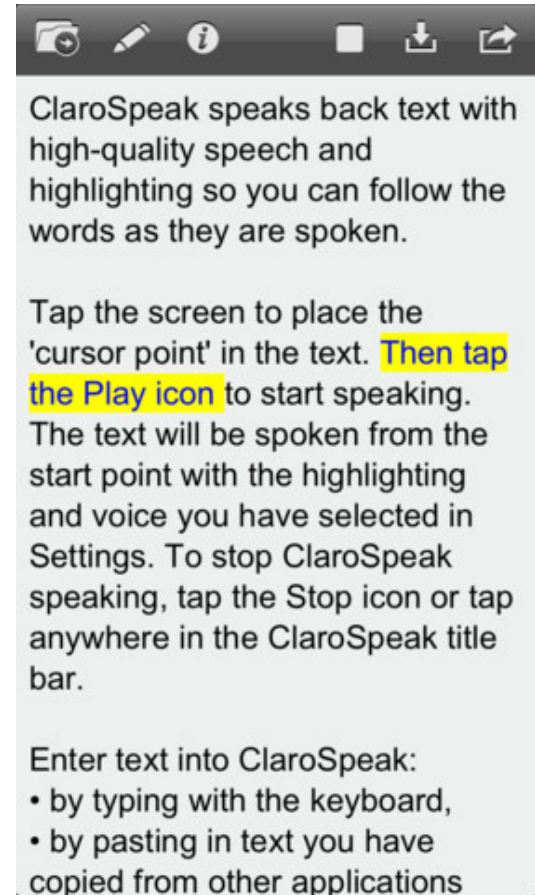


READING AND WRITING APPS



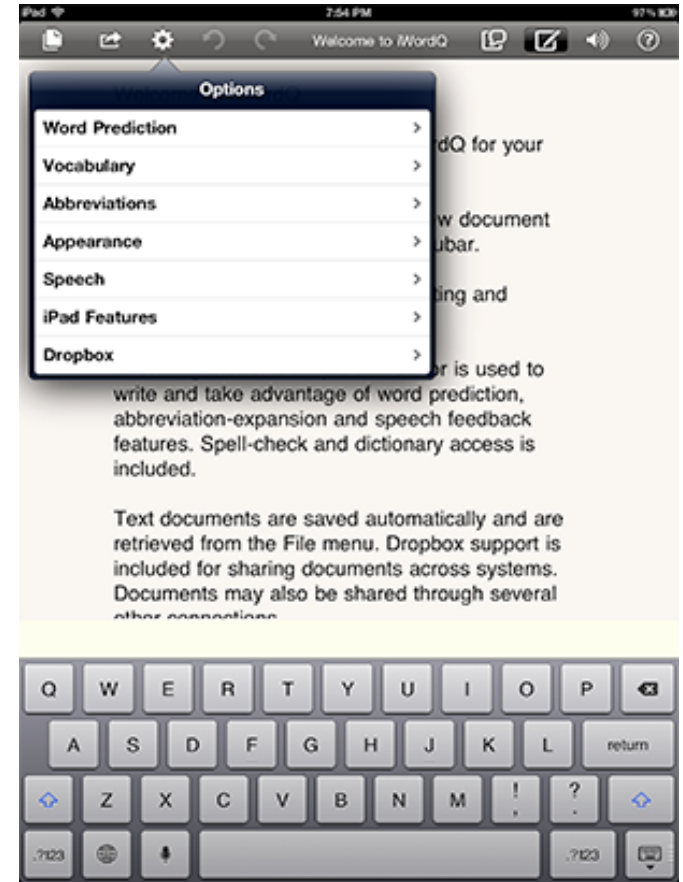
Claro Speak

- Text-to-speech reader
- Visual highlighting
- Can send text
- Can save to audio
- \$3.99



iWord Q

- Writing
 - In-context word prediction
 - Access to iPad dictionary
 - Text-to-speech feedback
 - Simple Text Editor
- Reading
 - Read out loud
 - Advanced proofreading
- \$24.99

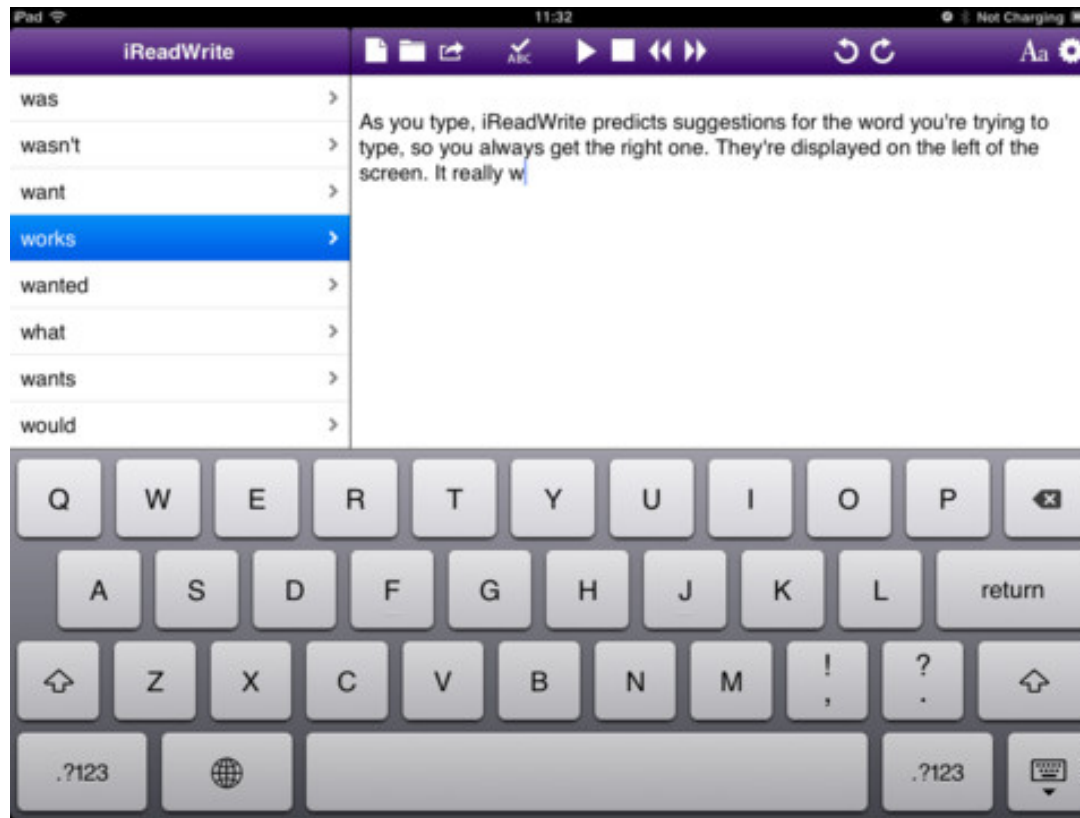


iReadWrite

- Text-to-Speech with Dual-Color Highlighting
- Contextual Word Prediction
- Sounds Like and Confusable Word Checker
- Customizable Background and Text Colors
- Phonetic Spell Checker
- Text and Picture Dictionary
- Choice of Voices and Fonts
- Import/Export Documents
- \$19.99

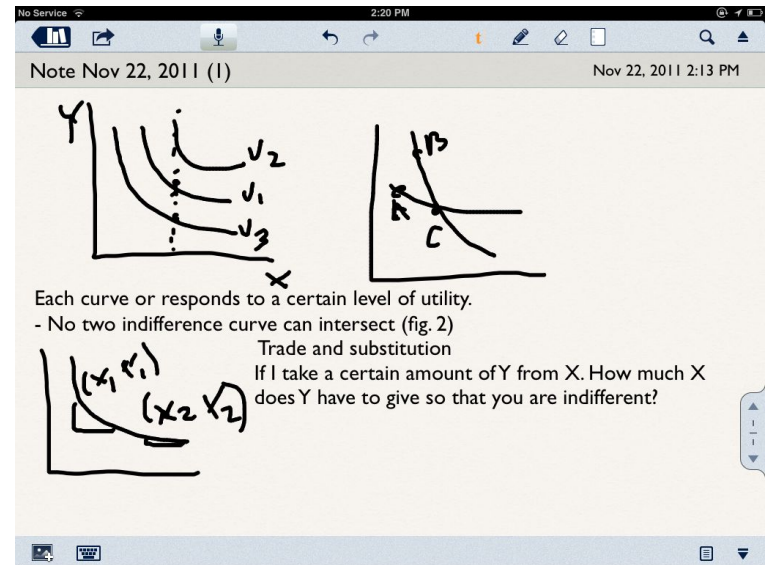


iReadWrite



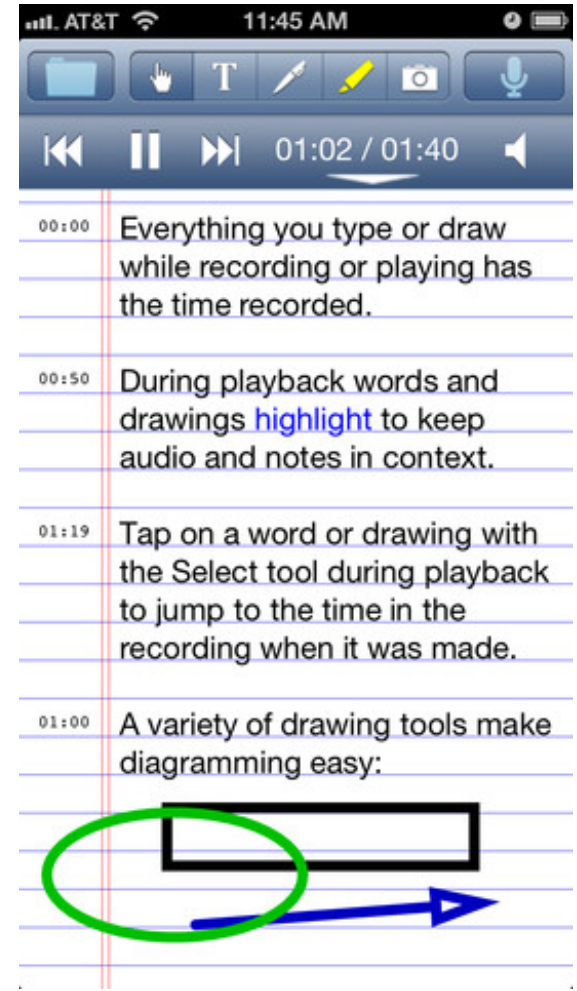
Noteability

- Full-featured Handwriting
- PDF Annotation
- Advanced Word Processing
- Linked Audio Recording
- Auto-sync with Dropbox, Google Drive
- Library Organization
- \$1.99



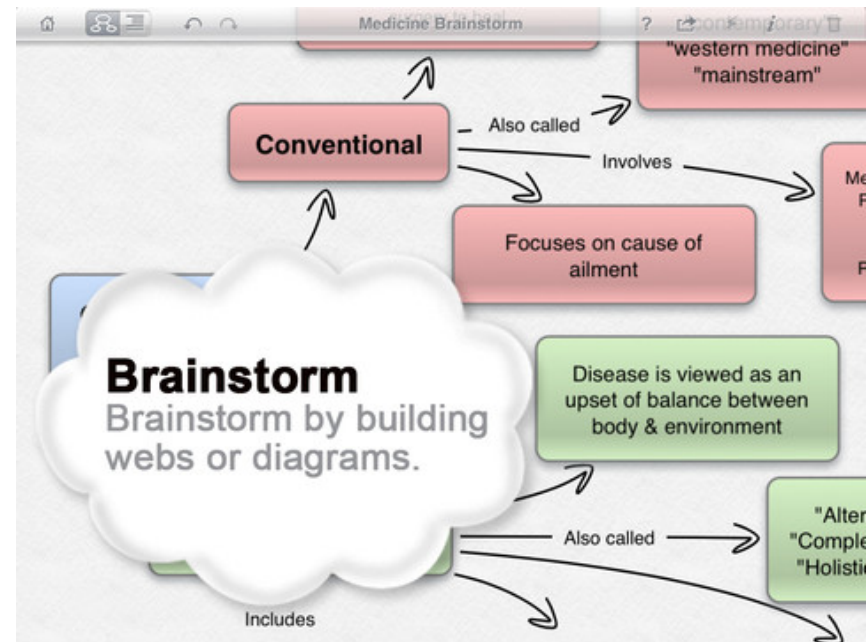
Audio Note

- Synchronizes note and audio recordings
- Fully functional text note application, with copy, paste, etc.
- Pen mode for Drawing or Handwritten notes
- Highlights notes during playback
- Export notes and audio via email, over Wi-Fi, or through iTunes (iPad only)
- \$4.99



Inspiration Maps

- Brainstorm new ideas and capture insights
- Organize thoughts and topics for writing
- Understand cause and effect
- Analyze information
- Organize projects
- Take notes
- Study for exams
- \$9.99



E-BOOKS



E-books

- Learning Ally
 - Membership program (\$119 annually)
 - Access to over 80,000 audiobooks

The screenshot displays the Learning Ally website's search page. At the top left is the Learning Ally logo with the tagline "Making reading accessible for all." and "Formerly Recording for the Blind & Dyslexic". To the right is a search bar with the placeholder text "Enter Title, Author, ISBN, Copyright, P" and a "GO" button. Below the search bar are radio buttons for "Web Site" and "Book Catalog". A navigation menu includes links for "DONATE", "PRESS ROOM", "CAREERS", "LOCATIONS", "CONTACT US", and "BLOG". A secondary navigation bar contains buttons for "Login", "Book Catalog", "Product Catalog", "Volunteer", and "Training & Support". The main content area is titled "Book Catalog Search" and features a search form with fields for "Title:", "Author:", "Learning Ally Shelf or Product Number:" (with a note "(e.g., DT-HV342 or HV342)"), and "Sort By:" (with a dropdown menu set to "Copyright, Title, Author"). There are "Search" and "Clear Form" buttons. Below the form are sections for "Quick Tips" and "Advanced Searches", each containing several helpful links and instructions.

Learning Ally))((
Making reading accessible for all.
Formerly Recording for the Blind & Dyslexic

Search: GO
 Web Site Book Catalog

[DONATE](#) | [PRESS ROOM](#) | [CAREERS](#) | [LOCATIONS](#) | [CONTACT US](#) | [BLOG](#) |

Login Book Catalog Product Catalog Volunteer Training & Support

Book Catalog Search

Title:

Author:

Learning Ally Shelf or Product Number:
(e.g., DT-HV342 or HV342)

Sort By:

Quick Tips

- » Omit punctuation in your search terms, such as hyphens (-), slashes (/), and periods (.).
- » Enter initials using spaces between the initials, such as J K Rowling.
- » Learning Ally books are available in multiple formats. Each book has a unique Shelf Number assigned to it. Available book formats will appear in your search results.
- » Still need help? Please visit our [Search Tips Page](#) For Additional Help

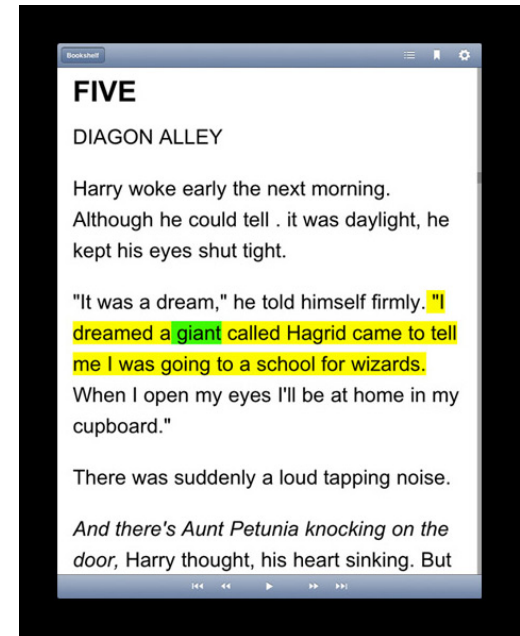
Advanced Searches

- » [Advanced Catalog Search](#) - Provides additional search options
- » [Subject/Keyword Search](#) - Provides advanced subject and keyword search options
- » [Browse New Titles](#) - Provides a list of the latest books added to the Learning Ally library



E-books

- Read2go app for iOS devices (\$19.99)
 - Access Bookshare books
 - Provides bimodal highlighting
 - Font size and color controls



Implementing AT Solutions

- Without adequate training and ongoing support, individuals with LD will not benefit. They may
 - Fail to use AT to best advantage (e.g., not use all relevant features)
 - Abandon the AT completely
- Training must be:
 - explicit, structured, ongoing
 - embedded in real world tasks



Questions?



Resources

- Learning Disabilities of America (LDA) <http://ldaamerica.org/>
- Job Accommodation Network (JAN) <https://askjan.org/>
- National Center for Learning Disabilities <http://www.ncld.org/>
- Washington Assistive Technology Act Program (WATAP) <http://watap.org>



Washington Assistive Technology Act Program

- University of Washington
- (800) 214-8731 Toll-Free Hotline
- (206) 616-1396 TTY
- (206) 543-4779 Fax
- <http://watap.org/>
- [Email: watap@uw.edu](mailto:watap@uw.edu)



Technology for Independence

