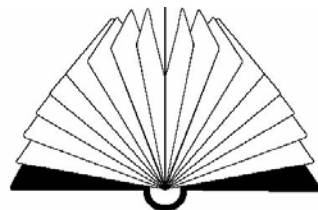


A Guide to

Assistive Technology

**To Support Literacy Learners
With Disabilities**



**NWT Literacy Council
Yellowknife, NT**

Assistive Technology for Literacy Learners



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Assistive Technology for Literacy Learners

In creating this guide, materials have been adapted or directly quoted from other publications. Care has been taken to trace ownership and to give credit to authors for use of their material. However, if material has been quoted or adapted without permission of the author, we do apologize for any oversight. We would be pleased to have any errors or omissions brought to our attention, so that they may be corrected in subsequent printings.

The NWT Literacy Council is a territorial non-profit organization that promotes and supports literacy activities in all official languages of the Northwest Territories.

You may obtain a copy of this book by writing or calling the NWT Literacy Council or by downloading the document from our website:

NWT Literacy Council

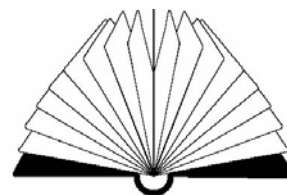
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N.W.T. LITERACY COUNCIL

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- Belle Auld, Coordinator of the SARAW program at Bow Valley College, Calgary, AB
- Assistive Technology Lab at Bow Valley College
- Assistive Technology Centre, Lunenburg Campus, Nova Scotia
- Aroga Group Inc.

Disclaimer

This information is intended as a guide to explore possible assistive technology tools and solutions for persons with disabilities. It does not cover all possible products or endorse any specific product. Solutions should be explored and specifically tailored to meet individual needs.

Assistive Technology for Literacy Learners

What is Assistive Technology?

Assistive technology can be any item, piece of equipment or system that helps work around or compensate for a disability, whether it is a learning disability or a physical disability.



Assistive technology can be any system of tools and strategies that match a person's needs, abilities, and tasks. These various tools and strategies can help a person accomplish tasks that would be difficult or impossible to complete.

Most adaptive technology is divided into one of two categories: either low or high technology solutions. High tech assistive technology usually involves computerized equipment like a computer, either software or hardware. It can also be a piece of equipment that works on its own or can connect to a computer.



The definition of assistive technology is flexible and can open many possibilities for what assistive technology can be. It does not have to involve computers, or be expensive. The 'definition' of assistive technology is only restricted by our own creativity and imagination.¹

There are many technologies available that can help an individual cope with their disability. It is important to first understand the person's disability by doing assessments or through a diagnosis. After you have this, you will be able to select the most effective assistive technology. Technology will only help an individual if the tool matches the individual's need.



The assistive technology products on the following pages cover mostly high technology aids. This list of products is not intended to be all-inclusive, but rather to provide you with information on products commonly available.

¹ Adapted from *Assistive Technology, Tips and Trick for Students with Learning Disabilities*.

Assistive Technology for Literacy Learners

Things to keep in mind when using Assistive Technology²

- What are the challenges the individual faces – physical, visual, reading, writing?
- Research, network and visit others who may be using similar technology.
- Consider a range and combination of technology options. (no-tech/low tech/high tech)
- Question usefulness and practicality of applications.
- Explore other accommodations (no tech) solutions.
- Try technology prior to purchasing whenever possible.
- Will the individual use it in real life/curriculum applications?
- Will it work for the individual and achieve outcomes?
- Are the individual's challenges and particular needs being assessed or indicated?
- Is it easy to learn? Is the individual comfortable with it?
- Does it enhance the individual's strengths?
- Can the individual use this technology independently?
- How effective is it? Is it affordable and cost-effective?
- Is it portable and usable in a variety of settings?
- Ensure that it can "grow" with the individual's needs.
- An individual may require more than one tool to complete tasks in different settings.
- Have a trial period to confirm effectiveness and fine-tune the implementation.
- Encourage use of assistive technology in all curriculum areas, if possible.
- Is it compatible with other software the individual is using?
- Encourage ways to become a useful tool for the individual in their school and home life.
- Continually assess the situation and monitor progress.
- Is it working for the individual and are outcomes being achieved?
- Purchase from a reputable source that offers expertise and technical support.

² Adapted from *Assistive Technology, Tips and Tricks for Students with Learning Disabilities*.

How to use the Guide

This guide represents a sample of the assistive technology available today. It is not meant to be an all-inclusive list, but it will give you a sense of the technology available and how it can be used to support adult learners with disabilities or low literacy skills.

You will find the following:

- A brief description of the assistive technology
- System requirements
- Cost
- Order Information

Many of the software packages listed have free demo versions that are available for you to download and try before purchasing; these have been listed where available.

Reading Printed and Electronic Material

Many literacy learners have difficulty reading print or electronic material. This can be due to visual problems or low literacy levels. There are many types of assistive technology to help learners with the printed word.

Many of the assistive technology devices described here use Text-To-Speech (TTS) or Optical Character Recognition (OCR).

- Text-to-Speech (TTS) is software used to read aloud a computer document such as word processor text or a web page. Words can sometimes be highlighted as text is read. It may be helpful to people who need or want to hear what they are seeing in print.
- Optical Character Recognition (OCR) is the process of converting an image of text, such as a scanned paper document or electronic fax file, into electronic text. The text in an image is not editable.



Assistive Technology for Literacy Learners

JAWS for Windows

JAWS is a screen-reading program for Windows that uses a voice synthesizer and a computer sound card to speak the text on your computer screen. It works with many applications, including email, word processing, spreadsheets, presentation software, web development tools, database management software, instant messaging programs, and web browsers. JAWS can send information to Braille displays and can interact with MAGic Screen Magnification. The voice settings, amount of screen information you hear, and how the words are spoken can all be customized.

- Supports all standard Windows applications without the need to do special configurations.
- Support for the most popular applications, including Microsoft Office XP.
- Supports Internet Explorer with special features: links lists, frames lists, forms mode, reading HTML tables and graphic labels and more.

System Requirements:

- Windows environment only

Cost:

- JAWS Standard: \$1195
- JAWS Professional: \$1895
- Download a free demo version from: http://www.aroga.com/blindness_downloads.asp

Order Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll Free Phone: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

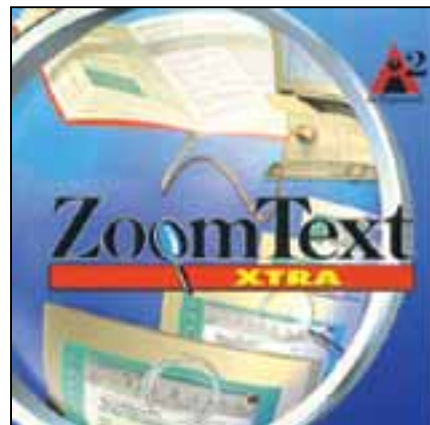
Freedom Scientific, Blind/Low Vision
Group
11800 31st Court North
St. Petersburg, Florida 33716-1805
Toll Free Phone: 1-800-444-4443
Phone: 727-803-8000
Fax: 727-803-8001
Email: info@FreedomScientific.com
Website: www.freedomscientific.com

Assistive Technology for Literacy Learners

ZoomText with Speech

ZoomText Xtra Level 2 magnifies the information on your computer screen by 2 to 16 times. If you are using Windows 95/98/ME/2000 and Windows XP, it can read the information on your screen to you using speech output.

ZoomText can display the enlarged information in eight different full screen or partial screen zoom windows, and offers a number of other features such as color filtering, which changes the colour of the background, making it easier for people to read. It also has cursor enhancements, which can make the cursor larger and easier to see.



System Requirements:

- Pentium or higher processor
- Windows XP, ME, 2000, NT, 98 or 95
- 32 MB memory (64 MB for NT, 2000 and XP systems)
- Windows sound card

Cost:

- ZoomText Xtra 7.1 Level 1 (magnifies but no speech): \$495
- ZoomText Xtra 7.1 Level 2 (magnification and speech): \$595
- Download a free demo: http://www.aroga.com/lowvision_downloads.asp

Ordering Information:

Aroga
#150-5055 Joyce Street
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Website: www.aroga.com

Ai Squared
P.O. Box 669
Manchester Centre, VT 05255
Phone: 802-362-3612
Fax: 802-362-1670
Email: info@aisquared.com
Website: www.aisquared.com

Assistive Technology for Literacy Learners

MAGic for Windows

MAGic is similar to ZoomText described above. It can magnify the screen up to 16 times. It also has a font-smoothing feature that makes sure that any colour of text will be smooth and easy to read as it is enlarged.

MAGic Professional with Speech magnifies the text up to 16 times. It can also read back information from the screen using a screen reader. It also gives you access to JAWS-based information.

System Requirements:

- Windows 95, 98, Millennium, XP Home, Windows NT, Windows 2000 and XP Professional.

Cost:

- MAGic Standard: \$480
- MAGic Professional: \$ 640
- MAGic Professional with Speech: \$950
- Download a free trial version: http://www.aroga.com/lowvision_downloads.asp

Order Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com



Assistive Technology for Literacy Learners

CCTV (Closed Circuit Television)

A CCTV is a closed circuit television that people with low vision can use to do course work, read recipes, write notes, do craft and hobbies, look at photos or read a book.

There are many different kinds of CCTVs on the market and they range in price from \$2000 to \$5,000. The price depends on the features you get and the size of the monitor. Generally, colour is more expensive than black and white and a large monitor is more expensive than a small monitor.



Some of the features to look for are:

- Margin stops - for reading columns
- Inverse video - lets you change the view so you have white letters on a black background
- Auto focus – Automatically focuses the page when you switch between thick and thin reading material
- Colour select – This feature lets you choose the colour for the foreground and background when using the CCTV. This makes it easier on your eyes.
- Underline and Highlight – gives an electronic underline or a line of highlighted text that makes it easier to follow along.

Ordering Information:

Aroga
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Toll free: 1-800-561-6222
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Freedom Scientific, Blind/Low Vision
Group
11800 31st Court North
St. Petersburg, Florida 33716-1805
Toll Free Phone: 1-800-444-4443
Phone: 727-803-8000
Fax: 727-803-8001
Email: info@FreedomScientific.com
Website: www.freedomscientific.com

Assistive Technology for Literacy Learners

Victor Reader VIBE

The Victor Reader Vibe is a small digital talking book player that is designed for people who are visually impaired or who have difficulty reading print.

The VIBE can be used for school, work, or leisure. It can be used as a digital talking book player as well as an audio and MP3 CD player. It allows you to read highly structured digital books such as school manuals and reference books as well as novels and magazines.



- For the visually impaired and dyslexic
- The buttons have special tactile zones and markings for easy recognition of controls
- Standard CD player, also plays audio and MP3 CDs
- Advanced functionalities: Go to page, Bookmarks and Speed control with pitch compensation
- Supports all Daisy navigation levels - quickly go to chapter, section, page, paragraph.

The VIBE allows reading of talking books recorded in digital format. It allows the user to easily navigate through the structure of a book. Unlike talking books on cassette, Victor Reader allows you to jump straight to a specific section or passage, skip from page to page, consult the table of contents, even insert bookmarks, and more. You don't have to rewind and fast-forward through a cassette to find a specific section.

Cost: \$330

Ordering Information

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4141 Yonge Street
Toronto, ON M2P 2A8
Tel: (416) 221-6341
Fax: (416) 221-6842
Toll free: 1 888-723-7273 Canada
Email: info@visuaide.com
Website: www.visuaide.com

Assistive Technology for Literacy Learners

Victor Reader Soft

This computer software allows you to use your computer to read and navigate through digital audio books. You can navigate through a book structure as well as save information within the book such as bookmarks, text annotation and to customize the display parameters. Victor Reader Soft combines the audio and text mode that let you read the text on screen synchronized with audio and is accessible to print disabled persons. With Victor Reader Soft you can browse the table of contents, skip from section to section or return quickly to a page, insert bookmarks to return to a spot or mark important passages.

The newest version has text-to-speech (TTS) support for SAPI 4. It also supports JAWS and Window Eyes screen readers. It can read both Daisy and NISO books and provides faster navigation with larger books.

- Fully accessible to all print disabled persons
- Integrated text-to-speech support for SAPI 4
- Advanced navigation functions
- Installs and works on your PC
- Text mode display
- Lets you read text on screen while listening to the audio
- Allows note taking in text with audio

System Requirements

- Windows 95, 98, NT, 2000 or Millennium, XP
- Explorer 5.5 or greater
- Processor: 166 MHz
- RAM: 64 MB
- Necessary hard disk space: 50 MB
- Multi-channel sound card strongly recommended

Cost: \$225

Ordering Information

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604 986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Visuaide
4141 Yonge Street
Toronto, ON M2P 2A8
Tel: 416- 221-6341
Fax: 416- 221-6842
Toll free: 1- 888-723-7273 Canada
Email: info@visuaide.com
Website: www.visuaide.com

Assistive Technology for Literacy Learners

Visunet Canada

VISUNET is a partnership, which links the resources of the Canadian National Institute for the Blind Library with your Public Library.

Who can use VISUNET?

VISUNET CANADA serves anyone who is unable to use print because of a visual or physical handicap, or a learning disability as defined by the Canadian Copyright Act.

- Your passport to VISUNET services is a card from your local library. Library cards are FREE!

What's available from VISUNET through your library?

- Talking Books 16,000+ unabridged titles in English on 4-track audio cassette
- Braille Books over 1,6000 children's picture book titles with see through Braille overlay between each page
- Electronic Text (E-Text) 1,300+ titles for reproduction in large print, audio, or Braille format
- Magazines (50), Daily Newspapers (8)
- Descriptive Videos 250+ films and PBS television programs with added narration describing setting and actions
- Braille Music 18,000+ scores for all types of musical instruments
- Audio Cinema over 50 films with narration describing setting and actions between dialogue sequences (2-track audio cassette)

What other services are available through VisuNET Canada?

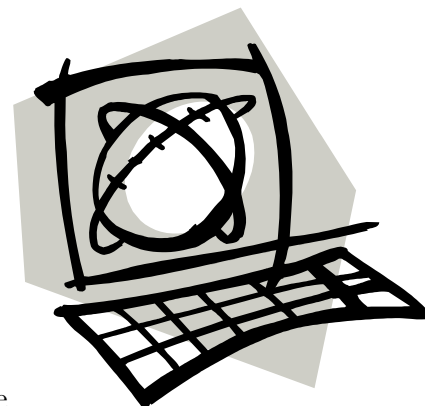
- VisuCAT: The CNIB's online library catalogue
- VisuTEXT: Books, encyclopedias, academic journals and other information resources on the Internet
- VisuNEWS: Telephone and Internet access to a variety of daily newspapers

For more information about VisuNET Canada, call or visit the library and ask about VisuNET Canada services for anyone who is print disabled. You can also check out the web site at: www.cnib.ca/library/visunet/index.htm

Assistive Technology for Literacy Learners

IBM Home Page Reader

IBM Home Page Reader is an Internet browser designed for users who wish to access the Internet in a non-visual or combined auditory and visual way. It is useful for people that are blind or partially sighted users, people with dyslexia or learning difficulties, and users who are learning a new language.



Home Page Reader uses voice to guide users when they are using the Internet to explore the World Wide Web.

Home Page Reader gives people with low vision the ability to resize windows and panes to make the screen easier to see. Users can change the font size, type, color, and background color. In addition, users can follow the moving cursor as the voice reads the words, making reading even easier.

Home Page Reader uses the IBM ViaVoice text-to-speech synthesizer to speak Web-based information aloud just as it is presented on the computer screen. With Home Page Reader, users hear everything from descriptions of graphics to text in column format. It can speak text, frames, image and text links, alternate text for images and image maps, and much more. It even includes special table navigation features that allow users to understand even the most complex tables, such as television listings.

Home Page Reader includes an integrated electronic mail feature, Home Page Mailer, which provides blind and low vision users access to email. Home Page Mailer set-up is simple; accessing mail is as easy as opening the Go menu and choosing Mailer.

System Requirements:

- Microsoft Windows 98, Millennium, Windows 2000, or XP
- Pentium 233 MHz and 256K L2 cache or equivalent
- 48 MB RAM for Windows 98 & Millennium, 64 MB RAM for Windows 2000 and XP
- 40MB hard disk space available
- SVGA graphics card (640 x 480, 256 colors)
- 16-bit sound card and 28.8 KBPS or higher Windows®-compatible modem
- 4X CD-ROM drive

Cost:

- \$150 – single user
- Download free 30-day trial: http://www-3.ibm.com/able/solution_offerings/hpr.html

Order Information:

Order and download online from http://www-3.ibm.com/able/solution_offerings/hpr.html

Reading Skills and Comprehension

Many learners with disabilities and low literacy skills struggle to their reading and with comprehension. There are several computer software programs that assist learners with developing their reading skills. These programs are one tool that they can use.

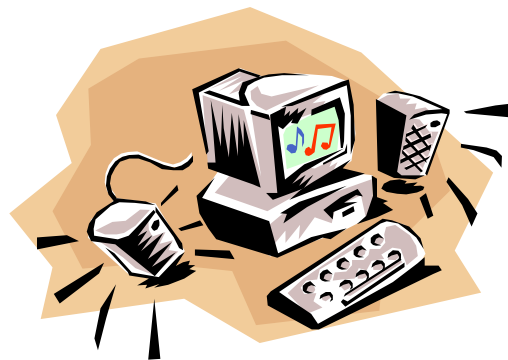


Assistive Technology for Literacy Learners

SARAW - Speech Assisted Reading And Writing

SARAW (Speech Assisted Reading And Writing) is a talking computer program designed to teach basic reading and writing skills to adults who currently read and write in the range of grades 2-6. SARAW was designed primarily to meet the needs of adults with severe physical disabilities who are non-verbal.

SARAW offers learners a set of activities to choose from, rather than a set of lessons that must be completed in a particular order. The learners make their own choices about what interests them, and what skills they want to develop further. SARAW has three major components: Reading, Activities, and Writing.



The Reading portion of the software can read stories aloud: a word at a time, a sentence at a time, or all at once. Learners may choose from a collection of stories written by other adult literacy learners and other adults with physical disabilities, or read their own work. A teacher/tutor can also add stories (using the Setup program) that interest particular learners.

The Activities section contains two different word games and a Sounding Board to teach phonics. The Sounding Board uses multi-coloured images to help the learner associate pictures with the sounds that letters make. The word games each have varying levels of difficulty.

The Writing section could be described as a talking word processor. The computer speaks as the learner types, providing immediate feedback about the word just typed. A Word Prediction feature helps learners spell words and/or increase their typing speed. As the learners start to type a word, the computer shows the learners common words that start with the letter the learner has typed. Pressing another key tells the computer to finish typing the selected word automatically.

SARAW also comes with the following:

- vocabulary building activities content easily modified by the instructor (Premium version only)
- reading and writing activities
- 3 vocabulary building activities (sounding board, mystery word, word patterns)
- immediate audio feedback for all activities
- free companion work book
- free teaching resource

Assistive Technology for Literacy Learners

System Requirements:

- 90-MHz Pentium
- Microsoft Windows 95, 98, NT, 2000, XP
- 64 MB of RAM
- 100 MB of free hard drive space
- AWE 32 Sound Blaster compatible sound card with speakers
- 16 bit TRUE color graphics card or better

Cost:

- SARAW Premium Version: \$300
- SARAW Lite Version: 2 Free Downloads available in Canada
- Download free demo: <http://www.saraw.net>

Ordering Information:

Neil Squire Foundation
Suite 220 – 2250 Boundary Road
Burnaby, BC, Canada
V5M 4L9
Tel: 604-473-9363
Fax: 604-473-9364
E-mail: sales@neilsquire.ca
Website: www.saraw.net
<http://www.neilsquire.ca/prod/sarawsam.htm>

Assistive Technology for Literacy Learners

WYNN Wizard

WYNN (What You Need Now) is a literacy software tool to help learners with reading and writing challenges. WYNN changes printed text into understandable information by allowing you to scan printed pages and convert them into electronic text, it then highlights text as it is spoken. WYNN's four color-coded, rotating toolbars are easy to use. The toolbars emphasize file management, including web and e-mail access, visual presentation of text, traditional study tools, and writing aids. WYNN has a WebFocus™ feature that can remove distracting visual clutter, and helps the reader to focus on important information on the web.

WYNN is available in 2 versions: WYNN Reader and WYNN Wizard (which allows you to scan documents). Some of the other features include:

- Email system built in
- Dictionaries - built-in standard and basic recursive dictionaries
- Traditional study tools - highlighting, bookmarking, text and voice notes
- Outlines - text is automatically entered into an outline format for brainstorming
- Teacher Lockout - temporarily restricts learner access to the dictionary, thesaurus, spell-checker, email, and Web during tests
- Word Prediction - users get help in writing with word suggestions during writing

System Requirements:

Windows:

- Windows 95, 98, NT, 2000, XP, or ME
- IBM-compatible Pentium PC, minimum of 233 MHz
- 64 MB of RAM
- Soundblaster 16-compatible (or better) sound card
- 200 MB of available hard disk space (plus room for document storage)
- VGA video in 800 x 600 resolution or higher, color mode of high color 16-bit or greater

Cost:

- WYNN Wizard (Scan/Read) 3.1: \$1,595
- Download a free trial version: http://www.aroga.com/learning_downloads.asp

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222

Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Assistive Technology for Literacy Learners

Kurzweil 3000

Kurzweil 3000 is reading and writing software for people with dyslexia or visual impairments who struggle with reading on their own. It works together with a scanner so that you can scan documents, such as books and tests, and then convert them to electronic text and read them out loud. Scanned documents can be saved as text files or as pictures so they can be used on any computer. You can also add notes or highlight parts of the document. The program includes spell checking, dictionaries and word prediction options. It is also able to read pages from the Web. Learners at any level can use the software regardless of the curriculum or material being used.

The software helps learners keep up with assigned reading, learn critical study skills and complete writing projects and tests, both formal and informal. The software can access virtually any document or publication, whether printed or electronic. It then reads the words aloud to the learner in clear synthetic speech while a highlighting feature adds visual reinforcement on their computer screen. Kurzweil 3000 has a set of testing accommodations that can be customized for learners and allow instructors to measure the learners' true abilities.

System Requirements:

Windows

- A TWAIN-compatible scanner
- 300 MHz Intel Pentium II, or 400 MHz if using RealSpeak voices
- 64 MB of RAM, or 128 MB if using RealSpeak
- 300-400 MB Hard Disk space
- 2 MB video RAM, 800x600, 16-bit colour
- Win95, 98, 2000, ME, XP, NT
- 16-bit compatible sound card with speakers
- CD Drive

Cost:

- Kurzweil 3000 / Read Colour: \$2695
- Kurzweil 3000 Scan/Read Black and White: \$1695

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
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Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
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450 Matheson Blvd. E. Unit 67
Mississauga, Ontario L4Z 1R5
Phone: (800) 353-1107
Fax: (905) 568-9925
E-mail: claire@betacom.com
Web: www.betacom.com/bridges

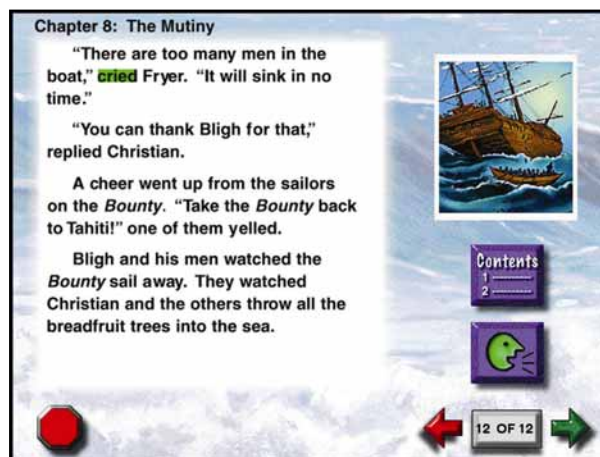
Assistive Technology for Literacy Learners

Start-to-Finish Books

Start-to-Finish is a high-interest, low-vocabulary series of books that offers supports to help a struggling reader. Start-to-Finish books have multiple formats – paper book, audio book, and electronic book. This allows the learner to combine visual and auditory support when reading.

This series of books:

- Enables independent reading for all learners
- Enlarges illustrations for better clarity
- Helps learners with print conventions
- Includes quizzes after each chapter
- Tracks and reports learner progress
- Reinforces key words with extra pronunciation support
- Places bookmarks automatically



Cost:

- \$65 per title

Ordering Information:

Don Johnston Incorporated
26799 West Commerce Drive
Volo, IL 60073 USA
Toll Free: 1-800-999-4660 - USA &
Canada
E-mail: info@donjohnston.com
Web Site: www.donjohnston.com

Lexia S.O.S. Strategies for Older Students



Lexia Reading S.O.S. is an interactive reading development program for older learners who have difficulty reading. It starts with basic first grade reading skills and works up to advanced decoding and comprehension. S.O.S. introduces words in various exercises that help learners gain reading skills typically taught in grades 1 – 7.

The learners get voice prompts as they work through activities for practicing decoding skills, early comprehension, and keyboard skills. They control their own activities but each learner must show both competency and fluency in each skill before moving on.

Level 1, 2, and 3 activities deal with word attack strategies needed for automatic word recognition. Exercises include one- and two-syllable words, as well as sentences and paragraphs to provide practice in applying word attack strategies to contextual material. The activities in Level 4 are designed to introduce word attack strategies for multi-syllable words containing open and consonant -le syllables, and hard and soft c and g. The exercises in Level 5 reinforce reading of words with prefixes and suffixes, recognition of Latin prefixes and suffixes, and division of words into prefix, root, and suffix. Advanced decoding and comprehension skills are strengthened through activities.

System Requirements:

- No special requirements

Cost:

- \$780
- Free demo available for download at: http://www.aroga.com/learning_downloads.asp

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com/

Lexia Learning Systems, Inc.
2 Lewis Street, PO Box 466
Lincoln, MA 01773
Toll Free: 1-800-435-3942
Phone: 781-259-8752
Fax: 781-259-1349
Email: info@lexialearning.com
Website: www.lexialearning.com

Assistive Technology for Literacy Learners

Autoskill

The AutoSkill Academy of Reading is a tool to help struggling readers get quickly up to grade level. It is designed to complement an existing reading program by offering instructors the tools they need to deliver a balanced approach to reading in the classroom.

The Academy of Reading focuses on the component skills of reading, including phonemic awareness, decoding, phonics, and working to develop a learner's comprehension abilities.

The program has:

- Structured and proven learning model
- Individualized learner instruction and mastery
- 3 grade level and 2 diagnostic assessments
- Comprehensive management system
- Phonemic Awareness, Reading Subskills and Reading Comprehension Training modules
- Supports third-party software programs so instructors can customize their learner's Academy experience
- Complements an existing reading program
- Fully networkable for larger educational setting
- Streamlined learner registration, assessment and training assignment

Cost: \$900

Order Information:

AutoSkill International Inc.
85 Albert Street, Suite 1000
Ottawa, Ontario, K1P 6A4
Phone: 613-235-6740
Toll Free Phone: 800-288-6754
Fax: 613-235-2818
Website: <http://www.autoskill.com>

Writing and Spelling

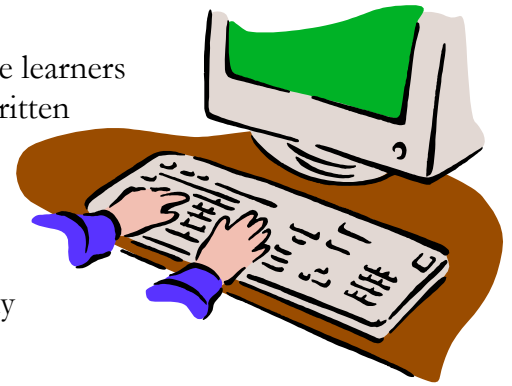
Some learners struggle with written expression because they have difficulties with spelling and or handwriting. Common problems learners may encounter are: limited spelling and vocabulary, letter reversals, dysgraphia, grammar and punctuation, structure.



Assistive Technology for Literacy Learners

Word Processors

Word Processors (WP) and word processing software provide learners with a structured environment that can help them produce written material. Writing and editing can be a difficult task for learners. Some learners find the physical act of writing difficult.



Word processors help learners struggling with writing in many ways:

- Learners have the chance to write without being concerned about making errors during the writing process
- Errors are easily corrected and information can be reorganized and edited before printing the final product
- Software with a spell checker, grammar check and multimedia features can assist with writing activities. A built-in spell checker can help an individual find and correct misspelled words within the document. Additional support for spell checking may come from using TTS (text-to-speech) and TTS dictionary features with a Talking Word Processor.
- Other tools "add-ons" such as word prediction programs and/or abbreviation expansion can work along with a word processor for added support.

Some common examples of word processing software are:

- Microsoft Word, MS Works, MS Publisher (PC/Mac)
- Corel Word Perfect
- ClarisWorks/Appleworks/Simpletext (Mac)

Talking Word Processors

A Talking Word Processor (WP) is a word processor software program that has built in text-to-speech features that give auditory feedback of letter (character), word, sentence or complete paragraphs. Any selected text can also be spoken. These programs can help learners with their writing - e.g. notice omissions, dropped endings, etc . They also offer the multisensory experience of hearing the writing while seeing it on the screen. TTS Spell Check/Dictionary (TTS Dic.) and grammar checking features can be an important consideration that provides feedback during spell checking.

Assistive Technology for Literacy Learners

Read and Write 6

Read & Write is an application toolbar that works with almost any Windows-based application. It can be used with word processors, spreadsheets, databases, email and the Internet.

Read & Write color highlights and reads the words, sentences or paragraphs in your document providing audio-visual reinforcement and helping to develop recognition of new words and vocabulary.

Read & Write also incorporates an advanced spellchecker specifically designed to solve the most complex of phonetic errors. The spellchecker can be customized to suit learner needs and provides audible definitions of alternative suggestions to help learners choose the correct one.

Read & Write has built in homophones support and will identify and provide audible definitions for like sounding words to improve the accuracy of user work.

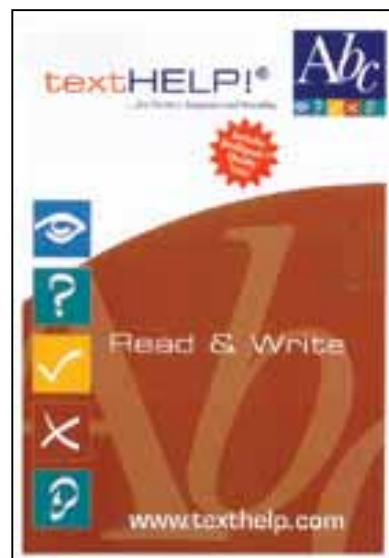
Word prediction will aid in sentence construction by suggesting and predicting words. Word predictor will learn as correct text is typed, dramatically aiding the development of literacy and increasing accuracy. Read and Write also has context and phonetic based word prediction.

Read & Write's Word wizard assists in developing creative sentences by offering solutions for vocabulary. When you are searching for the word you want, Word Wizard takes you through a simple step-by-step process until you find the word you are looking for.

Cost: \$750

Order Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com/



Assistive Technology for Literacy Learners

WriteAway 2000

WriteAway 2000 is a writing tool that gives the user a number of tools and functions that encourage creativity in the writing process. The program is ideally suited for the Special Needs/Special Education, Literacy, and ESL environment.

WriteAway 2000 is a word processor with specialized assistive technologies that has an uncluttered format. The program promotes written expression, communication, and literacy by addressing the special learning needs of those with:

- Dyslexia
- Dysgraphia
- Poor, slow or illegible handwriting
- Weak grammar or spelling
- Physical difficulty in keyboarding
- The need for auditory feedback
- Hearing and sight impairment

The program is useful in ESL (English as a Second Language) and Adult Literacy applications, as well as for early readers/writers. Recognizing that learners have a wide range of individual differences and requirements, the "toolkit" approach to meeting these differences has been developed. The idea of a toolkit consists of having a variety of writing tools.

- Word Prediction using base and subject specific word lists
- Text-to-Speech Output
- Spelling and pronunciation reinforcement

Each main tool has several variations for further individualizing. The learner or instructor can select and save one or more of the writing tools and variations, and create an individualized environment for each user, tailored to their current specific needs. Once created, the environment is automatically restored for the next session. As the learner progresses and the needs of the learner change, then appropriate modifications can be made to the environment to meet the needs of the learner.

Cost:

- Cost: \$149 @home version for single use computer
- Download free demo software: <http://www.is-inc.com/download.htm>

Assistive Technology for Literacy Learners

Order Information:

Information Services Inc.
P.O. Box 7056
Water Street
St. John's, Newfoundland
Canada A1E 3Y3
Sales: 1-888-492-4925
Admin Tel: 709-754-3824
Fax: 709-754-3826
sales@is-inc.com

Terra Nova Technologists
575 Tait Street
Victoria, BC
V8Z 2E1
Tel: 250- 744-4284
Fax: 250-744-1445
tnt@pacificcoast.net
Website: <http://www.is-inc.com/writeaway.htm>

Assistive Technology for Literacy Learners

Portable Keyboards / Stand Alone Word Processors

Portable Keyboards or Stand Alone Word Processors allow for easy and portable access to writing. These systems are a relatively inexpensive way for learner to enter and edit text, then transfer it later to the computer for formatting and printing.

AlphaSmart 3000

AlphaSmart (<http://www.alphasmart.com>) is a portable writing tool that can help many learners that struggle with taking notes in class, write first drafts and keeping assignments organized. AlphaSmart helps learners overcome these writing barriers and begin writing with a portable keyboard.

Learners can use the lightweight keyboard all day for in-class schoolwork and homework at night.

Features:

- Full-size, full-feature keyboard lets learners learn and use regular keyboarding skills
- Connects to any computer to transfer written work so that it can be edited and revised using the word processor of choice
- Learners take better class and research notes
- Learners write better first and final drafts



Cost: \$349

Order Information:

Microcomputer Science Centre Inc.
5288 General Road, Unit 5
Mississauga, Ontario
L4W 1Z8
Phone: 905-629-1654
Toll free: 1-800-290-6563
Fax: 905-629-2321
Email: sales@microscience.on.ca
Website: www.microscience.on.ca

Assistive Technology for Literacy Learners

Alternative Keyboards

Alternative keyboard layouts and other enhancements allow people who experience difficulty with conventional keyboard designs to use computers. The products available range from keyguards that prevent accidental key activation, to alternative keyboards with differing layouts, sizes, etc. for people who have specific needs, to alternative input systems which require other means/methods of getting information into a computer.

Big Keys Plus Keyboard

The keys on this keyboard are one inch square, four times larger than standard keys, and are available in color in the standard QWERTY layout or an easy to use ABC format for children. For adults and the visually impaired the keys are available in white with black lettering.



System Requirements:

- DOS, Win 3.1 and higher, NT
- Compatible with 386, 486, and Pentium computers
- No special software is required

Cost: \$320

Order Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Assistive Technology for Literacy Learners

Alternative Mouse Systems³

Alternative pointing devices are used to replace the mouse. The keyboard keypad can function as a mouse using Mousekeys. Many of the alternative keyboards have Mousekeys built in, so the keys on the keyboard can toggle between text input or mouse input.

Trackballs are upside down mice, with the ball on top and several buttons. Many trackballs offer the left and right mouse buttons plus one or two more which can be programmed to be a double click or drag lock. Many local computer vendors stock trackballs- the programmable ones are also available from assistive technology vendors. These allow the user to use one to 5 switches to control the mouse- the more switches the user can control, the faster the mousing around.

Mouse input can also be given by high tech pointing devices, which transmit the location of a transmitter or reflective dot on the user's head to the computer system. Separate switches or just dwelling on a location are used for mouse clicks and drags. These are frequently used with on-screen keyboards for text input by people with limited movement due to quadriplegia or muscular dystrophy.

Kensington Expert Mouse Pro Trackball

The Trackball design saves on desk space and arm movement and its four extra-large buttons are easy to click and comfortable to use. The 'Mouseworks' software that comes with the Expert Mouse saves time by reducing repetitive tasks. The Expert Mouse's large ball offers more control and precision with less arm and hand movements and its symmetrical design fits left and right-handed users. Users do not have to hold down a mouse button while dragging, plus the ability to temporarily slow down the cursor or lock it on a straight line. The Expert Mouse comes with software for customization.

Cost: \$320

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
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Sales: sales@aroga.com
Website: www.aroga.com



³ Source: Glossary of Adaptive Technology, University of Toronto, Adaptive Technology Resource Centre.

Word Prediction

Word Prediction software is used to help with text entry. These software programs predict and complete the word you are typing and the next word is based on word frequency and context. They may also include features such as spell checking as you type, multiple word prediction, text-to-speech, grammatical rules, phonetic spelling, and hotkeys for frequently used words. Text-to-speech can provide auditory feedback to assist in word choices and selection.

Word prediction can be particularly useful for slow typists, probe or pen users, dyslexics and helps enable learners to express their thoughts in writing with less frustration. Individuals can work at their developmental spelling level, write with content-specific words, and build good first sentences with correct conventions and gain writing confidence.

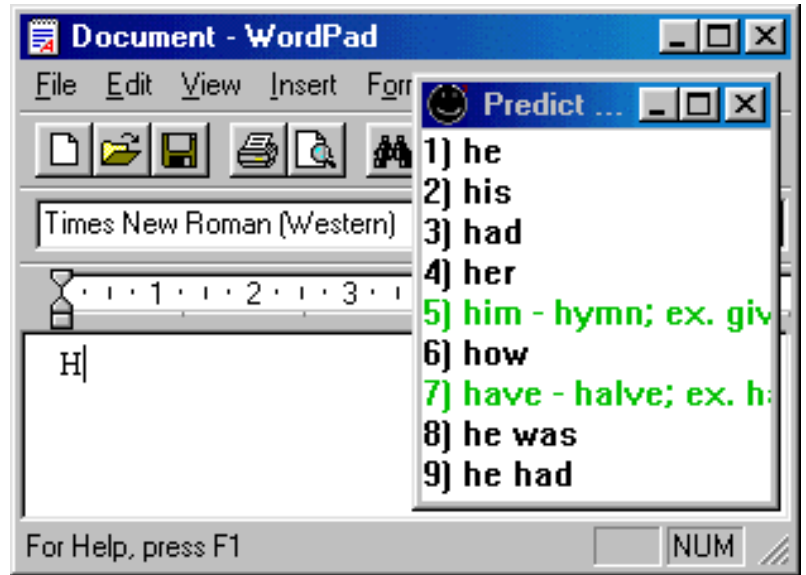
Word prediction programs reduce the time, effort and frustration for individuals with spelling difficulties to produce written work by providing an on-screen list of possible words to use in a piece of writing. The learner types a letter or two and the program provides a list of words beginning with that letter(s). If one of the choices is a word the learner wishes to use, he/she selects it. If not, the learner enters another letter that produces a new set of choices.

Assistive Technology for Literacy Learners

Aurora

Aurora for Windows helps people with learning disabilities and dyslexia write and spell better and helps people with physical disabilities communicate with the people around them.

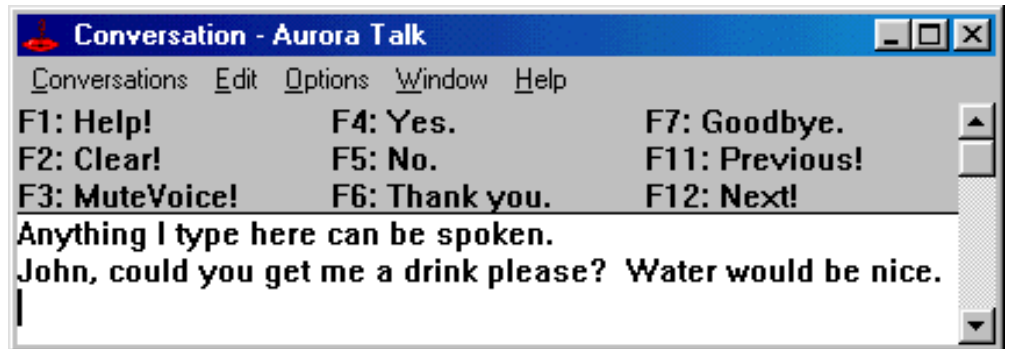
Aurora Prediction provides word prediction and abbreviation expansion to help speed up typing as well as spelling assistance through its talking spellchecker, phonetic spell matching, and homonyms selection tools.



Aurora Echo reads back what you type so you can hear when you make a mistake, or it can read text from your applications like email or web browsers if you have trouble reading. You can also use it to do presentations or perform prepared speeches.



Aurora Talk is a conversation tool. You can assign frequently used phrases to function keys for instant spoken communication or type whatever you want to say. You can organize your phrases into categories for home, work or school as you need, and you can quickly search what you have spoken before, and say it again easily.



Assistive Technology for Literacy Learners

The **Aurora Realvoice** provides speech synthesis on any computer with a sound card. Aurora also supports Microsoft Speech API (SAPI) speech synthesizers and a wide variety of external hardware speech synthesizers. With its built-in pronunciation correction, you'll be assured that it always says things the way you want.

Aurora operates transparently with all your favourite applications including email, web browsers, word processors and more on Windows 3.1, 95, 98, Me, NT 4.0, 2000 and XP.

Requirements:

- Windows 3.1, 95, 98, Me, NT 4.0, 2000 and XP

Cost:

- Download free demo: <http://www.aurora-systems.com>
- Aurora Prediction 3.0 for Windows \$595
- Aurora Echo 3.0 for Windows \$295
- Aurora Talk 3.0 for Windows \$295
- Aurora 3.0 for Windows \$725

Ordering Information:

Aurora Systems Inc.

Box 43005

Burnaby, B.C. V5G-3H0

Toll Free: 1-888-290-1133

Phone: 604-291-6310

Fax: 604-291-6310

Email: service@aurora-systems.com

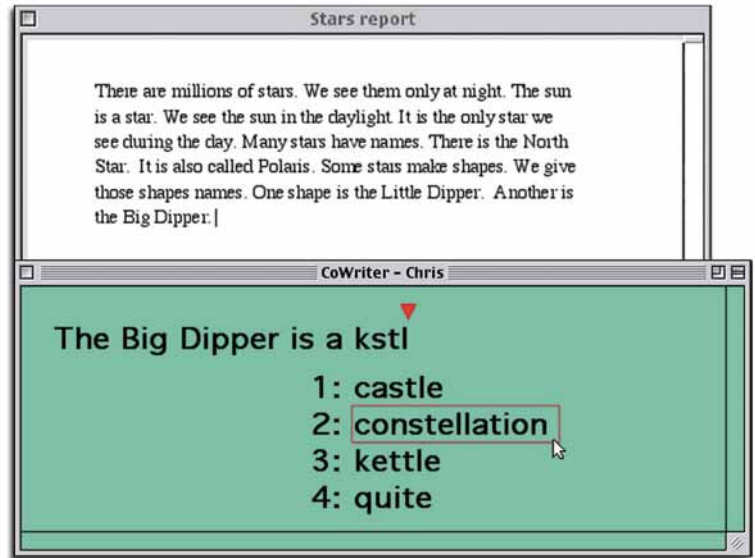
Website: <http://www.aurora-systems.com/>

Assistive Technology for Literacy Learners

Co:Writer 4000

Co:Writer 4000 adds word prediction, grammar and vocabulary support capabilities to any word processor or email program.

Co:Writer 4000 generates possibilities for the word the learner is thinking. These predictions are based on combining knowledge of spelling (phonetic and dictionary), grammar rules, context clues, learner history and letter cues. With this writing and typing support, learners overcome mechanical barriers which then allows them to focus on conveying ideas.



Learners write better.

- Emerging phonetic spellers get the word they want
- Developing writers create good first sentences that are grammatically correct
- Struggling learners find the right word with fewer cues
- All learners build vocabulary
- Topic dictionaries for curriculum-specific vocabulary

For each learner or each assignment, a dictionary or group of dictionaries is designated as the source for the predicted words. A beginning writer may use a basic vocabulary dictionary so that only words they will likely know are predicted. A more advanced learner writing a report would include a Topic Dictionary for a particular assignment. Dozens of Topic Dictionaries are included with Co:Writer 4000 and on the Don Johnston web site. Plus, instructors can create new Topic Dictionaries from any electronic document.

FlexSpell™ translates phonetic spelling and helps struggling writers. As a learner types a word, Co:Writer 4000 predicts words consistent with the actual letters, but also words consistent with the sounds of the letters. Correct spellings are predicted and reinforced as learners see, hear and use them.

Co:Writer 4000 helps learners make appropriate word choices and write higher-quality sentences. It helps with correct subject-verb agreement, proper spellings, capitalization, appropriate pronoun and article use, customary word usage, correct word forms and word endings, popular phrases and proper noun usage like names and places.

Co:Writer 4000 provides other writing supports:

Assistive Technology for Literacy Learners

- Speaks predicted words and completed sentences
- Allows adjustments to the number of words predicted
- Allows changes to background and text colors
- Capitalizes first word in sentences
- Places spaces after words in sentences
- Saves individual learner's preferences for later use

Cost: \$600

Ordering Information:

Microcomputer Science Centre Inc.
5288 General Road, Unit 5
Mississauga, Ontario
L4W 1Z8
Phone: 905-629-1654
Toll free: 1-800-290-6563
Fax: 905-629-2321
Email: sales@microscience.on.ca
Website: www.microscience.on.ca

Don Johnston Incorporated
26799 West Commerce Drive
Volo, IL 60073
USA
800.999.4660- USA & CANADA
E-mail: info@donjohnston.com
Web Site: www.donjohnston.com

Assistive Technology for Literacy Learners

WordQ

WordQ software is a writing tool used along with standard Windows word processing software to provide spelling, English grammar (and French grammar), and punctuation assistance. It uses advanced word prediction to suggest words for you to use and provides spoken (text-to-speech) feedback. Users of all ages who have problems writing and editing can benefit, including those who have learning disabilities.

System Requirements:

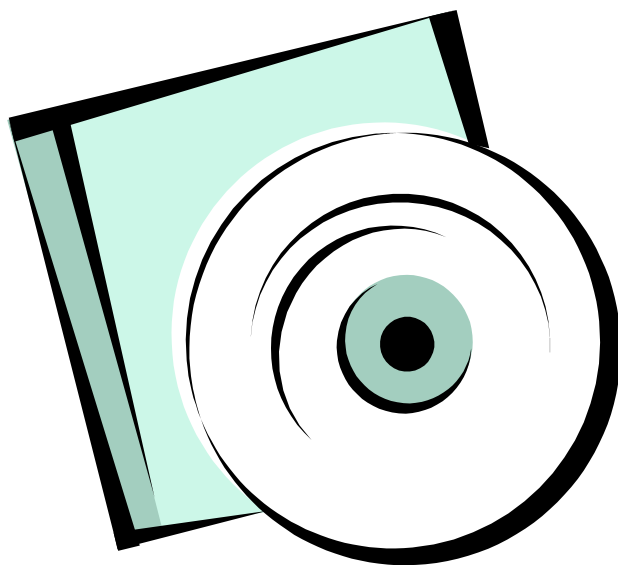
- Windows 95/98/ME/NT4/2000/XP

Cost:

- \$195 single user
- Download a free 30 day trial version
<http://www.wordq.com/Downloads/downloads.html>

Ordering Information:

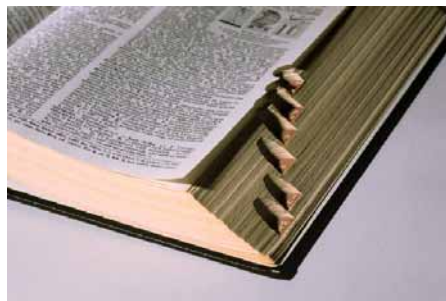
Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
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Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com



Assistive Technology for Literacy Learners

Dictionaries

Dictionaries can be non-electronic and electronic reference tools that help a learner with disabilities. In addition to dictionaries, thesaurus, atlases, encyclopedias, in print, many are available in multimedia format. Handheld electronic reference tools available include speaking dictionary & thesaurus.



Quicktionary Reading Pen III



The Reading Pen II is designed for people with reading or learning disabilities, such as dyslexia.

The built-in voice gives immediate word for word or pronunciation of a single word, or

line of text for you all at the touch of a button. Voice on all Quicktionary II Pens is in English only, and you hear the word(s) spoken in English only when you scan English text.

Quicktionary II recognizes over 300,000 words and expressions and offers numerous language combinations. It reads a wide range of printed fonts and sizes, including inverted and hyphenated text. It even includes an OptiCard for entering words that you can't scan, such as street signs. Quicktionary II can be set for convenient left- or right-handed use and is designed to fit in your pocket; at only 3 ounces, it is much lighter than regular dictionaries.

This Pen is a completely portable self-contained device and does not require a computer.

Cost: \$380

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Assistive Technology for Literacy Learners

Franklin MWS - Speaking Dictionary and Thesaurus

Includes 120,000 words, 300,000 definitions, 500,000 thesaurus entries, and learning exercises, Grammar Guide, SAT word list, and more features. Users can view definitions, synonyms, antonyms, and related words and hear them pronounced. Users can also create their own study list of words, as well as highlight a word in a definition and instantly find its meaning.

Users can use the Grammar Guide to get a comprehensive outline of English grammar as well as learn a new word each time you turn the unit on. Users that have problems with spelling are able to find a word even if they misspell it.

Cost: \$165

Ordering Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com



Assistive Technology for Literacy Learners

Speaking Merriam-Webster's Collegiate® Dictionary

The Speaking Merriam-Webster's Collegiate Dictionary is an electronic dictionary that is designed to help users communicate effectively. It uses high-quality language reference with state-of-the-art search technology.



The features include:

- Instant access to over 200,000 words and 500,000 synonyms
- Easy to understand definitions - Immediate access to clear and concise definitions for over 200,000 words, which includes inflected words. Usage paragraphs provide guidelines for words with confused or disputed usage.
- Accurate pronunciation
- Headwords and definitions spoken with Franklin's ClariSpeech™ technology.
- Authoritative Spelling - Discover the correct spelling for a word based on phonetically-entered words and Franklin's quick search and retrieval technology.
- Advanced Thesaurus and Grammar Guide - Expand users' vocabulary and use alternate word choices with a complete thesaurus containing 500,000 synonym returns.
- Synonym paragraphs explain different shades of meaning between words.
- Have the Confusables™ feature, the comprehensive Franklin Grammar Guide (with Grammar quizzes), and over 20 tables of useful information, at your fingertips.
- Interactive Learning with Word Games - Letris, Word Dozer and other interactive games.
- Built-in ROLODEX® Databank and is expandable with a PC connection kit (sold separately) that allows for downloads of other reference and eBook titles as well as eNews. Users can use a book card slot to access a library of additional Franklin titles.

Cost: \$120

Order Information:

Creative Basics
Box 2096
Yellowknife, NT X1A 2P6
Phone: 867-920-2486
Fax: 867-920-7757

Voice Recognition

Voice Recognition allows a user to use their voice as an input device. Voice recognition may be used to dictate text into the computer or to give commands to the computer (such as opening application programs, pulling down menus, or saving work). Older voice recognition programs require each word to be separated by a distinct pause. This allows the machine to determine where one word begins and the next stops. This style of dictation is called discrete speech. Many people, especially those with learning disabilities, prefer these systems to the newer continuous speech. Continuous speech voice recognition applications allow a user to dictate text fluently into the computer. These new applications can recognize speech at up to 160 words per minute. While these systems do give the user system control they are not yet hands free. While the accuracy of voice recognition has improved over the past few years some users still experience problems with accuracy either because of the way they speak or the nature of their voice.⁴

Voice recognition may be useful to learners experiencing extreme difficulty producing written compositions by hand, but who have strong verbal expressive skills. It is appropriate for learners who have poor spelling skills, but have the ability to read and recognize the correct word when presented. It should only be used if the learner has a severe learning disability and all other less expensive and less complex options have been tried.

Factors to Consider before Recommending Voice Recognition

- Works better with some learners than others
- Best candidates are dysgraphic, not dyslexic (average readers but very poor writers), highly motivated, have clear vocal articulation and a sense of optimism
- Staff training is critical
- Learner need to be trained one-on-one
 - Small groups simply don't work
 - Errors go unnoticed and uncorrected affecting the quality of the users voice file
 - Learners will get frustrated waiting for help
- Good vocal skills - clarity, consistency, fluency
- Good personal skills - maturity, self-discipline, comfortable with technology
- Good cognitive skills - memory, problem solving, dysgraphia not dyslexia, concentration, divided attention
- Other considerations - likely to use for assignments once trained, opportunity both at home and school, access to knowledgeable trained family members

⁴ Source: University of Toronto, Assistive Technology Resource Centre website.

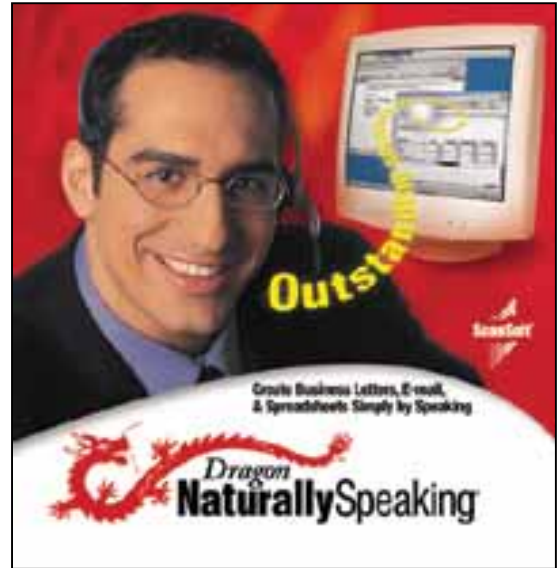
Assistive Technology for Literacy Learners

Dragon Naturally Speaking

Dragon NaturallySpeaking speech recognition software lets users create and edit documents, reports, spreadsheets, and e-mail-all by voice. Users can speak and their words will appear on the screen. The program works with Microsoft Word, Excel, Outlook, and Corel WordPerfect. Dragon NaturallySpeaking Preferred works with virtually all Windows-based applications.

Dragon Naturally Speaking allows users to listen to incoming e-mail and documents read aloud. Search the Web, access information, and navigate Web pages by speaking URLs and links. Create dictation shortcuts that enable you to insert blocks of texts or bitmaps-such as your name, title, and signature-by voice.

Users can dictate directly into a PC or an L&H-certified handheld recorder and create their own documents on the spot. The program is an easy and accurate way to turn speech into text. Users can dictate into virtually any windows-based application at speeds up to 160 words per minute and achieve higher levels of accuracy than ever before. Edit documents, control applications and manage your desktop, all by speaking.



Cost:

- Dragon Naturally Speaking Preferred - \$240
- Dragon Naturally Speaking Professional - \$1000

Order Information:

Aroga
#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Planning and Organizing

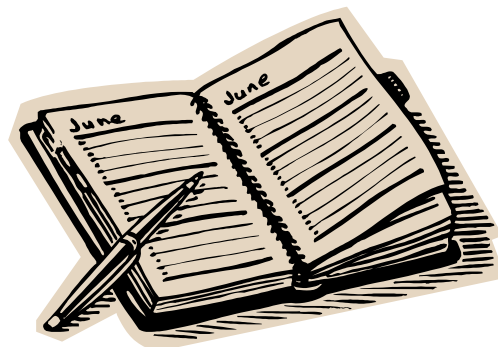
Some individuals with learning disabilities also have difficulties in the area of organization resulting from limitations and attention span, memory and retrieval and planning ability. They commonly struggle with timetables, homework notebooks, organizing course notes and handouts, studying for tests and working effectively on long-term projects.



Assistive Technology for Literacy Learners

Time Managers

Time Managers can assist in daily, weekly and monthly planning and organizational skills. Voice memos, date and time stamps, alarms and reminders are features that may be able to be considered. Learners with disabilities require specific training and monitoring in the use of these tools.



Digital Voice Recorders and Memo Recorders



Digital Voice Recorders and Memo Recorders allow for voice recording and playback as well as transcribing features with some voice recognition programs. Date and time stamps and alarms and playback speed are features to consider.

Digital Voice Recorders have features that allow the user to record a number of messages (the number of minutes of recording varies with the model purchased), as well as control the playback speed of the messages.

Some models have VOC (voice operated recording), a PC link that allows it to connect to a PC, titling and editing, cue/review, as well as controls for microphone sensitivity and an earphone jack

Cost: \$160 - \$490

Order Information:

Creative Basics
Box 2096
Yellowknife, NT X1A 2P6
Phone: 867-920-2486
Fax: 867-920-7757

Assistive Technology for Literacy Learners

Electronic Organizers and Personal Digital Assistants (PDA)

Electronic Organizers, Personal Digital Assistants (PDA) and Handheld Personal Computers (HPC) are electronic handheld devices that offer simple, quick, fun and smart ways to communicate, teach and learn wherever you go. With these devices, an instructor or learner can do amazing things: access the Internet, take notes, calculate, sketch ideas, collect data, access resources, and manage activities and courses.

Palm Pilot

The Palm Pilot is one example of a personal data assistant. It allows the user to store and always have on hand, important addresses and phone numbers - family, friends, co-workers, doctors, and instructors. Users can also stay on top of their schedule with reminders and alarms for appointments. As well, they can keep a to-do list and check things off as they go.

Cost: \$200

Ordering Information:

Creative Basics
Box 2096
Yellowknife, NT X1A 2P6
Phone: 867-920-2486
Fax: 867-920-7757

Palm Pilot - <http://www.palm.com/education/palmED/>



Processing and Understanding Language

Some individuals have difficulty understanding oral language because of problems with language development, auditory processing or hearing. They are often described as "visual learners" and benefit when information is presented in a variety of ways.

Listening and hearing considerations may help learners better understand speech more easily and may improve attention and comprehension.



Assistive Technology for Literacy Learners

Solaris Personal FM system

The Solaris personal FM system is a wireless FM transmitter and personal receiver system that works with hearing aids, cochlear implants, or headsets.

Using a FM System involves speaking into a transmitter microphone, which sends a wireless FM signal that is broadcasted to the receiver. The signal is amplified and delivered directly to the listener by loud speaker(s) positioned around the room. As stand-alone hearing system it may help an individual to hear better anywhere that there is background noise, distance, and or echo that can interfere with understanding speech.



Order Information:

Phonic Ear Ltd.
10-7475 Kimbel Street
Mississauga, ON L5S 1E7
Toll free: 800 263 8700
Fax: 403 686 6258
Email: general@phonicear.ca
Website: www.phonicear.ca/main_products.html



Tape Recorders

Tools for recording and playback may provide access to print materials such as books when auditory strengths are used. A variable speed tape recorder can especially help. Tape recordings of textbook chapters can be useful if the learner has reading levels below classroom peers, but has no difficulty with content. Volunteers, another learner or an efficient peer reader, can do tape recording. A tape recorder may be used for taking notes, recording lectures and assisting learners to express themselves for writing activities.



TextAloud MP3

TextAloud MP3 is text- to-speech software that uses voice synthesis to create spoken audio from text. Learners can listen on their PC or save text to MP3 or wave files for listening later. MP3 Readers and Converters can read text at the desired speed and voice while recording it into a wave and or MP3 file format (smaller file size and efficient). A user can listen to email, web pages, eBooks and documents on the computer or a portable MP3 player. MP3 files can be saved to the hard drive or a CD-ROM to be replayed many times.

System Requirements:

- Win 95/98/ME/NT/2000/XP
- Minimum P200
- 64MB RAM
- 10MB Disk Space
- Sound Card

Cost:

- Download free trial version: <http://www.nextuptech.com/TextAloud/index.html>
- \$25

Order Information:

NextUp.com
2668 Lewisville-Clemmons Rd
Clemmons, NC 27012
Email: sales@NextUp.com
Website: www.nextuptech.com

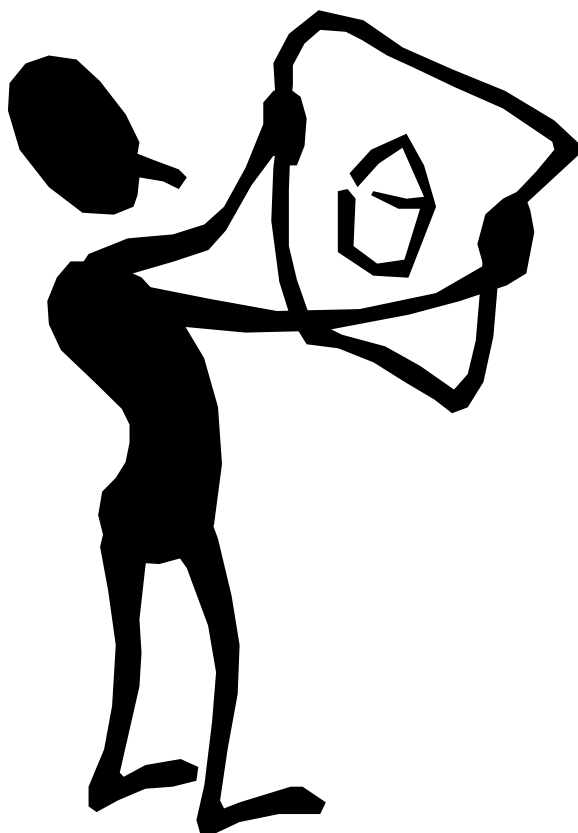
Expressing Ideas through Language

Some learners have a difficult time putting their thoughts into words. They can often express their ideas more effectively in a multisensory way. Learners can use assistive technology to help them organize their ideas and present them to others. Many of the common problems with learners are: organizing ideas, thinking visually, brainstorming, and vocabulary knowledge.

Graphic Organizers

Graphic organizer software can help more visual learners to visually organize and plot information. It will also assist with:

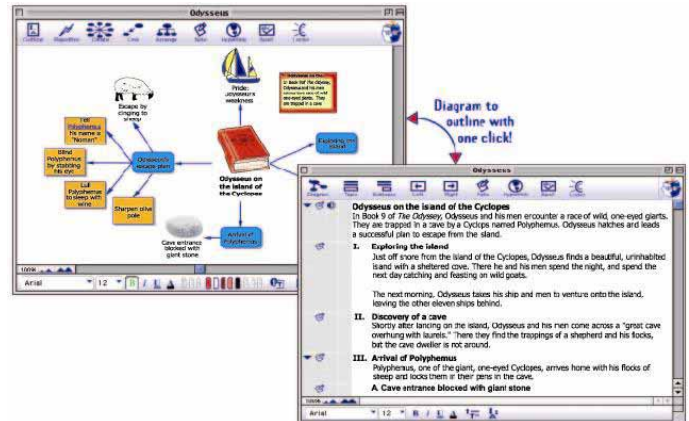
- Outlining and brainstorming to organize written work
- Using visual learning techniques - graphical ways of working with ideas and presenting information
- Teaching learners to clarify their thinking
- Helping learners process, organize and prioritize new information
- Helping visual learners use visual diagrams to reveal patterns, interrelationships and interdependencies



Assistive Technology for Literacy Learners

Inspiration 7

Inspiration is a software program that helps learners through the process of brainstorming, webbing, concept mapping, organizing and outlining. It strengthens critical thinking, comprehension and writing. It can be used across the curriculum when learners need to structure their writing or understand sequential processes. Learners in grade 6 through to adulthood can benefit from use of this program. The software comes with prepared graphic organizers and makes it easy to create your own. Learners can incorporate graphics into their webs. The program also has a spell checker.



System Requirements:

Windows.

- 486 processor or higher
- Windows 95, 98, 2000, NT 4.0, ME, XP
- 8 MB RAM
- 640x480 display, 256-color display
- 5 MB available hard drive; 20 MB for full install
- CD-ROM drive (for installation)

Macintosh.

- Macintosh or Power Macintosh
- System 7.1, 8.0, 9.0, OS X
- 2 MB available RAM
- 640x480 display, 256-color display
- 5 MB available hard drive minimum, 30 MB for full install
- CD-ROM drive (for installation)

Cost:

- \$159
- Free thirty-day trial download available at the website:
<http://www.inspiration.com/freetrial/home.htm>

Ordering Information:

Aroga
#150-5055 Joyce Street North Vancouver,
BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Website: www.aroga.com

Strategic Transitions Inc.
Inspiration Software Associates
9 Industrial Parkway South, Units 7 & 8
Aurora, Ontario Canada L4G 3V9
Toll Free 800-726-7784
Phone 905-726-2853
Fax 905-726-2856

Assistive Technology for Literacy Learners

Draft: Builder

Draft: Builder helps learners through the organization of ideas, making notes and writing of a draft. It provides a visual representation of the draft building process.

The software has three components: organization of your ideas into a concept map, writing your notes for your draft and the transfer of the first two to the third component to create a draft document. Learners can edit the draft, print it and/or transfer it to any word processing program. The software includes a series of built-in templates to guide the user through the creation of various types of essays to lab reports.



System Requirements:

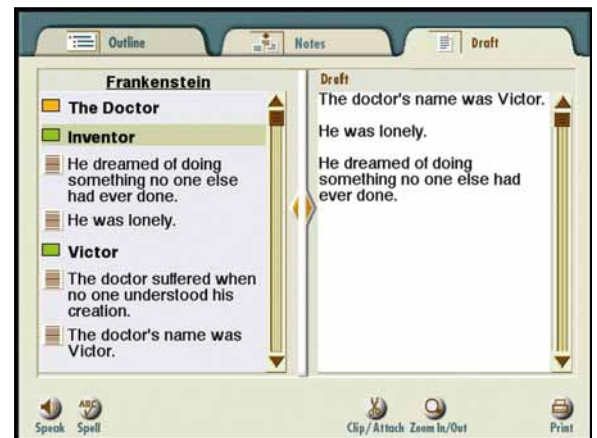
Windows:

- 16MB available Hard Disk space
- CD-ROM drive
- Sound Blaster or compatible sound card

Macintosh

- Mac OS 8.6 - 9.2.2
- 16MB RAM, Power PC or above
- 16MB available Hard Disk space.
- CD-ROM Drive

Cost: \$279



Ordering Information:

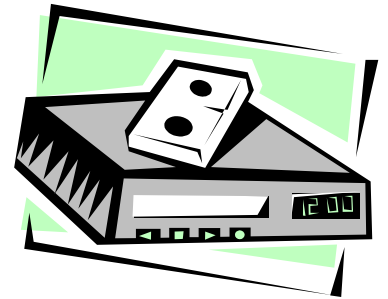
Microcomputer Science Centre Inc.
5288 General Road Unit #5
Mississauga, ON L4W 1Z8
Toll Free: 1-800-290-6563
Phone: 905-629-1654
Fax: 905-629-2321

Don Johnston Incorporated
26799 West Commerce Drive
Volo, IL 60073
USA
800.999.4660- USA & CANADA
E-mail: info@donjohnston.com
Web Site: www.donjohnston.com

Assistive Technology for Literacy Learners

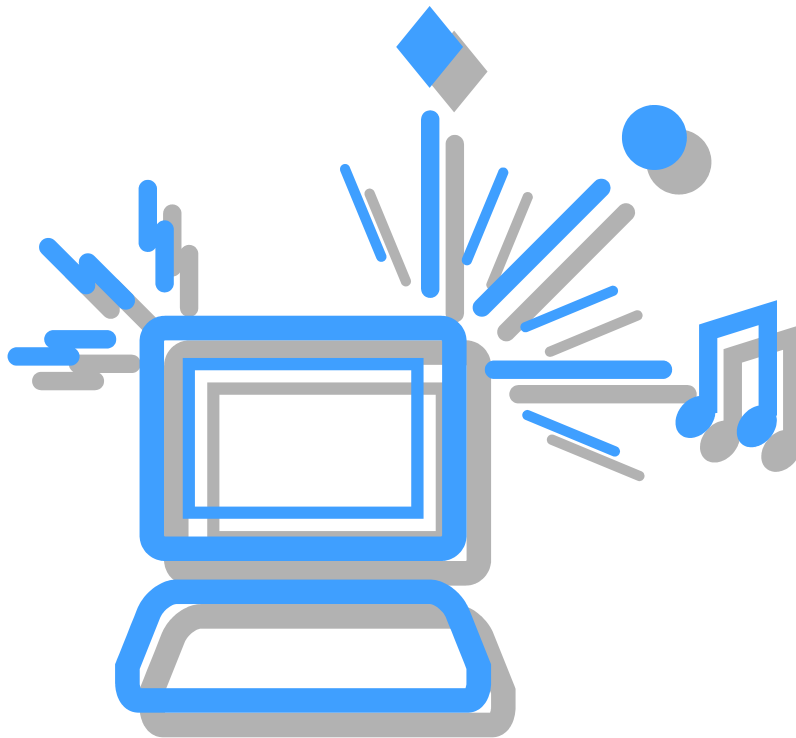
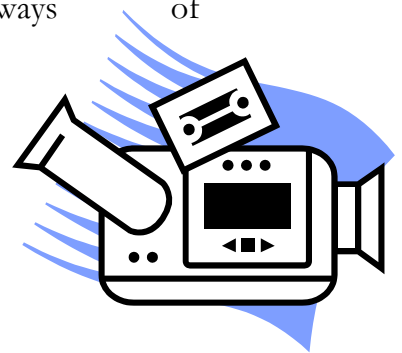
Multimedia Presentations

Multimedia presentation software, such as Microsoft PowerPoint lets learners combine written word, content, graphics and sound in a multimedia presentation. Other media such as video recorders, digital camera, VCRs and television, allow the learners to get creative using an interactive format and presentation style.



Using multimedia presentations can be highly motivating, interesting and visual to the user. A television, VCR and videotapes used creatively can be very effective ways of learning for some learners.

Multimedia presentation of material can present information in a variety of modalities (visual, auditory, and kinesthetic.) Having learners prepare presentations using these tools can be very motivating, exciting and rewarding.



Assistive Technology for Literacy Learners

Web-4-All

The Web-4-All (W4A) package was developed for Industry Canada to ensure seniors, new Canadians, and people with disabilities or literacy challenges have computer access to services and information on the Internet. It does this by creating a customizable computer where each user can select, save, and deploy their own special features to meet their needs or disability, using a using smart card that automatically configures a computer's assistive software and hardware.

W4A makes public Internet access locations accessible to those requiring "non-standard" computer technology. W4A consists of a number of assistive technologies. The software components include Opera, a plain-text browser; Home Page Reader, speech synthesis for the blind; eReader, multi-sensory input for learning disabilities, low literacy, and FSL/ESL; and Visual Dynamic Keyboard, alternative keyboard inputs for manual dexterity impairments. W4A also ships with an external card reader and track ball, which replaces the mouse. Installation, support, and training documentation in alternate formats (Braille, large print, audio tape, and plain e-text) are included as well.

Web4All is being tested in various communities across Canada in partnership with non-governmental organizations, other levels of government, and financial institutions and telecommunications companies.

System Requirements:

- Pentium II or better computer
- Windows 98 or higher
- CD-ROM drive
- Sound card and speakers,
- 64 MB of memory

For more information:

Project Manager
Information Highway Applications Branch,
Industry Canada
613-952-9691
le@ic.gc.ca
<http://www.web4all.ca/>

Companies and Suppliers

Assistive Technology Companies and Suppliers

You can contact assistive technology companies to request catalogues and free trial demos.

Aroga – Head Office

#150-5055 Joyce Street
North Vancouver, BC V5R 6B2
Toll free: 1-800-561-6222
Phone: 604-986-7999
Fax: 604-986-7070
Sales: sales@aroga.com
Webmaster: rob@aroga.com
Website: www.aroga.com

Aroga Edmonton Office

#325, 10106 - 111 Ave
Edmonton AB T5G 0B4
Toll free: 1-877-274-0044
Fax: 780-477-9581
carrie@aroga.com

Microcomputer Science Centre Inc.

5288 General Road, Unit 5
Mississauga, Ontario
L4W 1Z8
Phone: 905-629-1654
Toll free: 1-800-290-6563
Fax: 905-629-2321
Email: sales@microscience.on.ca
Website: www.microscience.on.ca

Betacom

450 Matheson Blvd. East, Unit 67
Mississauga, Ontario L4Z 1R5
Toll Free Phone: 1-800-353-1107
Phone: 905-568-9977
Fax: 905-568-9925
Email: info@betacom.com
Website: www.betacom.com

Assistive Technology for Literacy Learners

Don Johnston Incorporated

26799 West Commerce Drive

Volo, IL 60073

USA

800.999.4660- USA & CANADA

E-mail: info@donjohnston.com

Web Site: www.donjohnston.com

Ai Squared

P.O. Box 669

Manchester Centre, VT 05255

Phone: 802-362-3612

Fax: 802-362-1670

Email: info@aisquared.com

Website: www.aisquared.com

Freedom Scientific, Blind/Low Vision Group

11800 31st Court North

St. Petersburg, Florida 33716-1805

Toll Free Phone: 1-800-444-4443

Phone: 727-803-8000

Fax: 727-803-8001

Email: info@FreedomScientific.com

Website: <http://www.freedomscientific.com/>

Websites

Assistive Technology Websites

Information Sources on Learning Disabilities

- LD Online - <http://www.ldonline.org>
- LD Resources - <http://www.ldresources.com/>
- National Adult Literacy Database Inc - <http://www.nald.ca>
- Learning Disabilities Resource Community LDRC - <http://www.ldrc.ca>
- Schwab Foundation for Learning - <http://www.schwablearning.org/>

Information Sources on Assistive Technology

- LD Online Tech Guide - http://www.ldonline.org/ld_indepth/technology/techguide.html
- LD Resources - <http://www.ldresources.com/>
- Adaptive Technology Resource Centre - Technical Glossary University of Toronto - <http://www.utoronto.ca/atrc/reference/tech/techgloss.html>
- Microsoft Tutorials - <http://www.microsoft.com/enable>
- Assistive Technology Centre - <http://www.nsnet.org/atc> Many freeware/shareware links
- The Internet: An Inclusive Magnet for Teaching All Students (469 KB .PDF file) - <http://www.wid.org/archives/handbook.pdf> (on CDROM)
- Special Education Technology British Columbia - <http://www.setbc.org/>
- START - <http://www.nsnet.org/start>
- Trace Windows 95/98 Software Toolkit (Selection of Freeware/Shareware) - http://www.trace.wisc.edu/world/computer_access/win95/win95sha.html
- Trace Macintosh Software Toolkit (Selection of Freeware/Shareware) - http://www.trace.wisc.edu/world/computer_access/mac/macshare.html

Assistive Technology for Literacy Learners

- Ablenet – Canadian Contact: Betacom – www.betacom.com or www.ablenetinc.com
- Clicker – Crick Software – www.cricksoft.com
- Don Johnston Products – Canadian Contact: Betacom – www.betacom.com
- Aurora for Windows 2.0 (CDN) - <http://www.aurora-systems.com/>
- Bridges Betacom, (CDN) - <http://www.betacom.com>
- Educational Resources (CND) - <http://www.edresources.com/>
- Microcomputer Science Centre Inc, (CDN) - <http://www.microscience.on.ca>
- WriteAway 2000 (CDN) - <http://www.is-inc.com/> Demo downloads available

NWT Support Agencies for People with Disabilities

NWT Council of Persons with Disabilities

Box 1387
Yellowknife, NT X1A 2P1
Phone: 867-873-8230
Fax: 873-4124
Email: disabilitynwt@tamarack.nt.ca
Website: <http://www.nwtability.ca/>

CNIB - Canadian National Institute for the Blind

4920-47th Street
Box 872
Yellowknife, NT
Phone: 867-873-2647
Fax: 873-0289
Website: <http://www.cnib.ca/>

Learning Disabilities Association of NWT (LDA-NWT)

P.O. Box 242
Yellowknife, NT, X1A 2N2
Tel/Fax: (867) 873-6378
E-mail: ldanwt@ssimicro.com
Website: <http://www.nald.ca/ldanwt.htm>

Literacy & Adult Education

Colleges & Careers Development
GNWT Department of Education, Culture and Employment
P.O. Box 1320
Yellowknife, NT X1A 2L9
Tel: 867-920-3482
Fax: 867-873-0237
E-mail: nwtliteracy@gov.nt.ca

Assistive Technology for Literacy Learners

Yellowknife Association For Community Living

Box 981

Yellowknife, NT X1A 2N7

Phone: 867-920-2644

Fax: 867-920-2348

Email: laniacl@ssimicro.com

NWT Literacy Council

P.O. Box 761

Yellowknife, NT X1A 2N6

Tel: (867) 873-9262

Fax: (867) 873-2176

E-mail: csills@nwtliteracy.ca

Website: www.nwt.literacy.ca