

Adaptive Technology Program

Independent Living Resource Centre *Your Disability Resource Centre*



Information Booklet

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Welcome to the ILRC

The ILRC is a resource centre designed by people with disabilities for people with disabilities. The resources, supports and opportunities found at the ILRC can help consumers stay in control of their lives.

The ILRC also shares information and resources with other community organizations, students and teachers, government departments, agencies, businesses, and anyone who is interested in disability issues.

Some services that the ILRC offers are:

- Information & Networking
- Individual Advocacy
- Volunteer Services / Peer Support
- Career Development
- Adaptive Technology
- CAP Site – Community Access Program
- Research & Development
- Independent Living Internship

Adaptive Technology at the ILRC

Adaptive Technology (AT) has become very popular at the ILRC. People who use it are able to overcome obstacles that would otherwise prevent them from using a computer or accessing the Internet.

The Adaptive Technology Program is funded through the Department of Human Resources, Labour & Employment (www.hrle.gov.nl.ca/hrle/), with additional supports received through Industry Canada & Human Resource Social Development – Youth Employment Services.

In the ILRC CAP (Community Access Program) site, we have a wide range of computer hardware and software all in a fully accessible environment. Anyone can come in and try out any piece of equipment to see what works best for them. Our AT Coordinator – Donna Greene – is here to help people use the equipment and find ways to own it themselves.

We currently have a whole bunch of exciting Adaptive Technology for you to check out. So if you are curious and want to explore more, feel free to stop by the ILRC for more information.

What is Adaptive Technology?

Adaptive or Assistive Technology (AT) refers to all technology designed to help people with disabilities in everyday life. At the ILRC, we refer to Adaptive Technology as a variety of hardware and software that helps a person with a disability operate a computer independently.

Who can benefit from AT?

- Anyone who finds it difficult to control a keyboard or mouse
- Anyone who has difficulty seeing the display
- Anyone who is unable to hear auditory cues
- Anyone who has a learning disability
- Anyone who needs or wants an easier or more convenient way to use a computer

Types of AT

Hardware

Alternative Keyboards include keyboards with large keys, alphabetical keyboards, on-screen keyboards and one-handed keyboards.

Alternative Mice are mice with different designs that make them easier for people with disabilities to use.

Braille Embosser is a printer that produces Braille.

Switches are devices that allow for easier manipulation than a keyboard or joystick and may even consist of just a single button

Web Cameras use video to track head movements which control the mouse cursor on-screen

Software

Optical Character Recognition programs are designed for people with visual impairments. OCR translates images of handwritten or typewritten text (for example, a textbook that has been scanned) into text that can be edited on the computer. An OCR system allows you to take a book, magazine article, etc. and scan it into the computer then edit that scan in a word processor. Many OCRs have a narration feature and are capable of reading the text to you.

Voice Recognition Systems work by using voice commands.

Screen Readers are programs that will read aloud what is displayed on-screen and what is entered on the keyboard.

Screen Magnifiers are programs that enlarge the information on the screen so that it is easier to see.

AT Websites

If you are looking for some information about Adaptive Technology, here are some interesting websites:

ILRC – AT Program:

www.ilrc.nf.ca/at.htm

Adaptech:

www.adaptech.org

AT Resource Centre – University of Toronto:

www.utoronto.ca/atrc

Compusult Ltd.

Compusult is a privately owned Information Technology (IT) company that has been in continuous operation for over 21 years. Their main business activity is software development.

Compusult is very active in the field of Adaptive Technology (AT) for persons with disabilities. Compusult researches, develops and manufactures software and electronics products to improve the independence of persons with disabilities at work, at school and at home. In addition to their own product/service lines, Compusult is also an authorized reseller of many third-party AT products accommodating several disability areas.

Over the past five years, Compusult has developed an excellent working relationship with the ILRC. They are a part of our membership and the AT Program's Steering Committee. They have also participated in many ILRC functions and projects, including technology shows and demonstrations, the Web-4-All project, and have provided AT to support ILRC research and technology needs.

Visit Compusult's website at www.compusult.net.

Adaptive Technology at the ILRC

SOFTWARE

JAWS is a screen reader program that will read aloud the content of a webpage or document and help you navigate through your computer by using voice output. This program is available in 17 languages worldwide, and is customizable in many ways such as reading speed, voice, etc.



www.freedomscientific.com



Kurzweil 1000 is a software program that speaks aloud in a variety of voices that can be modified to suit individual preferences. It also allows you to create and edit documents, and has study skills capabilities for note taking, summarizing and outlining text.

www.kurzweiledu.com/products_k1000.asp

Kurzweil 3000 allows you to scan documents in color or black and white, open a document from another application or create your own document, then manipulate them within the program. It has many customizable toolbars for reading, writing, and studying.



www.kurzweiledu.com/products_k3000.asp



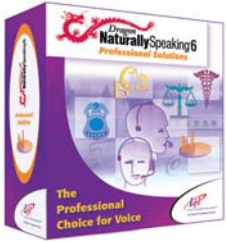
Spark Space is a concept mapping software which allows you to create documents, arrange ideas, make presentations, build a webpage, and much more.

www.spark-space.com

ZoomText is a magnification and screen reader program. It will enlarge what you see on-screen up to 16x its original size, and has a narration feature to assist with reading.



www.aisquared.com



Dragon Naturally Speaking is a voice input or dictation program that performs actions dictated to it by the user. By speaking into a microphone you will be able to compose email messages, create reports, draft letters, edit proposals, etc.

www.nuance.com/naturallyspeaking/

Key to Access (KTA) enables you to take your assistive software with you on a portable USB MP3 player. KTA holds 9 different software programs and is totally self-contained - it can be used on any computer simply by plugging it in.



www.readingmadeeasy.ca

HARDWARE



Jouse 2 Sip & Puff is a device that allows you to control cursor movements using your mouth. Inhaling (sipping in) performs a right-click and exhaling (puffing out) performs a left-click. Jouse 2 attaches to a desk easily and can extend or contract to suit the users' preferences.

Finger Trackball Mouse is controlled using the thumb and index finger of one hand. It does not require a flat surface to operate properly.



Kensington Trackball Mouse has all the buttons located at the top of the mouse. This mouse does not need to move on the desk, rather all cursor movement is controlled using the trackball.

Switches are devices that perform the functions of a mouse, such as right or left click.





Big Track Mouse is a mouse that requires less fine motor skills. It can be operated using the hand or foot. The yellow trackball will move the cursor and the two blue buttons perform the click actions.

Big Keys keyboard has keys that are four times larger than keys on a standard keyboard. Big Keys are available in a variety of colors and key layouts (QWERTY or ABC).



One-handed Keyboard is a “half Keyboard” that allows the user to access all the functions of a standard keyboard in a compact package, using one hand. These are available in left- and right-handed models.

ABC Keyboard is a keyboard that has its keys arranged in alphabetical order making it easy to find the keys.



Touch Monitors are monitors that allow you to perform “clicking” and “scrolling” actions by touching the screen with your finger.

Height Adjustable Desks are desks that can be raised or lowered electronically to fit the height needs of whoever is using it.



Augmentative & Alternative Communication (AAC)

Some people have complex communication needs associated with a wide range of physical, sensory and environmental causes which restrict or limit their ability to participate independently in society. They and their communication partners may benefit from using augmentative and alternative communication (AAC) methods (ISAAC 2002).

AAC refers to ways other than speech that are used to communicate. Most people who use AAC have a variety of communication systems. Depending on their needs and skills they usually include a number of aided and unaided communication systems.

Unaided AAC systems might include voice, nodding and shaking one's head, facial expression, pointing or looking at desired objects, and sign languages.

Aided AAC systems might include communication displays (comprised of written words, letters or phrases, pictures or symbols), devices which speak or print out messages, call bells, etc.

There are specialized AAC Services available to assist people in determining the AAC systems which best meet their needs and skills.

Source: Augmentative Communication Community Partnerships - Canada:
www.accpc.ca/

E-Accessibility

What is E-Accessibility or Web Accessibility?

E-accessibility stands for “electronic accessibility” and refers to access to Information and Communication Technologies (ICT) such as TV broadcasting, telecommunications, the Internet and the equipment that delivers these services. Web accessibility is about making the World Wide Web accessible to everyone, no matter their ability.

A key principle of web accessibility is designing websites and software that are flexible to meet different users' needs, preferences, and situations. This flexibility benefits people with disabilities, people using a slow Internet connection, people with “temporary disabilities” such as a broken arm, and people with changing disabilities due to aging.

Why is it Important?

The Web is an increasingly important resource in many aspects of life: education, employment, government, commerce, health care, recreation and more.

However, currently most websites and web software have accessibility barriers that make it difficult or impossible for many people with disabilities to use the web.

It is essential that the web be accessible in order to provide equal access and equal opportunity to people with disabilities. An accessible web can also help people with disabilities more actively participate in society.

The web offers the possibility of unprecedented access to information and interaction for many people with disabilities. That is, the accessibility barriers to print, audio, and visual media can be much more easily overcome through web technologies.

How Can You Make Your Website Accessible?

Making a website accessible can be simple or complex, depending on many factors such as the type of content, the size and complexity of the site, and the development tools and environment.

Many accessibility features are easily implemented if they are planned from the beginning of website development. However, fixing inaccessible websites can require significant effort, especially sites that were not originally “coded” properly and sites with certain types of content such as multimedia.

The Web Accessibility Initiative (WAI) has produced several documents that list basic steps for addressing accessibility in web projects and provide detailed information for developers.

The WAI provides guidelines that are widely regarded as the international standard for web accessibility, support materials to help understand and implement web accessibility, and resources, through international collaboration.

Visit the WAI website to learn more:

www.w3.org/WAI



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