

Web Accessibility

This website has been optimized in accordance to the [Accessibility for Ontarians with Disabilities Act \(AODA\)](#). We strive to ensure that our website meets legislated WCAG 2 Level A web accessibility standards. Please [contact us](#) if you wish to provide feedback on our website. Below are additional tips for enhancing the accessibility of websites.

Tips for enhancing accessibility of websites:

Modifications for the following:

Web Browsers

- Internet Explorer 6
- Internet Explorer 7
- Mozilla Firefox
- Apple Safari

Operating Systems

- Microsoft Windows
- Apple OS X

Step-by-Step Instructions	
Change Text Size	Make text larger and more readable
Change Fonts	Change the font style for easier reading
Mouse Pointer Visibility	If you have difficulty viewing the mouse pointer
Change Colours	Change the text and background colours of websites
Magnify Screen	Magnify your screen if text on web browser cannot be re-sized
Browse Out Loud	Make the website talk



Enlarging Text and Images

In Your Web Browser:

Most web browsers will allow you to simply enlarge and reduce text and image sizes through the options in the menu bar, or by pressing "**Ctrl +**" and "**Ctrl -**" or other keyboard combinations (see [browsing the Web by keyboard](#) for more information on keyboard commands); however, these changes are often temporary and may be lost when you open a new browser window or the next time you start your web browser. To make text and images appear larger by default in your web browser, you need to modify the settings of the web browser.

Related Resources:

- Google Chrome - [Help: Change font size \(zoom\)](#) and [Help: Adjust fonts, languages, and encodings](#)
- Microsoft Internet Explorer - [Use Magnifier to make things on the screen easier to see](#)
- Mozilla Firefox - [Accessibility: Fonts and Colors](#)
- Opera - [Display Modes](#)

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In Your Operating System:

You can also change the default display settings in the operating system of your computer, which will apply to all your applications, rather than changing only the settings of your web browser. You can increase the default font-size, which will make the text, but not the images, appear larger in all your applications. Alternatively, you can decrease the resolution of your display, which will make all content appear larger, but generally reduce the quality of the text and images. Increasing the "*dots per inch - DPI*" value has a similar effect on enlarging the text and images without losing quality; however, this feature is not supported by all operating systems and computer screens, so that it may not be available to you.

Related Resources:

- Apple Mac OS X - see "View Options" in [Accessibility: Vision](#)
- Linux - [KDE Accessibility Features](#)
- Microsoft Windows - [Windows Accessibility](#)



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Using Additional Tools:

There are [screen magnifiers](#), some of which are built directly into the operating system of your computer. These software tools enlarge the text and images, and can sometimes be set to read the text and the menus out loud. Vendors of such software usually provide detailed documentation on customization options and may sometimes provide training and support directly or through third-parties.

Related Resources:

- Screen magnification tools in operating systems:
 - Apple Mac OS X - [Accessibility: Vision](#)
 - Microsoft Windows - [Use Magnifier to make things on the screen easier to see](#)

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Changing Colors and Fonts

In Your Web Browser:

You can change the default colors for text, background, or links, and change the default font styles to make the content easier for you to distinguish and read. Several web browsers provide simple options for defining such color and font schemes, including options to reuse the color schemes of the operating system, in case you already defined custom settings. Some web browsers also provide high color contrast schemes or allow you to override the presentation style of the website using custom "*style sheets*". While this approach is quite powerful, it is not easy to set up and may require guidance or assistance by someone with technical skills.

Related Resources:

- Microsoft Internet Explorer - see "Adjust size and color" in [Windows Accessibility](#)
- Mozilla Firefox - [Accessibility: Fonts and Colors](#)
- Opera - [Opera Help: Fonts](#)

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In Your Operating System:

You can change the default color and font schemes in the operating system of your computer, which will apply to all your applications rather than to your web browser alone. You can set your web browser to reuse these color and font schemes or define different schemes for the Web, for instance to better highlight links. Some operating systems provide a selection of desktop schemes, including schemes with higher color contrast.

Related Resources:

- Apple Mac OS X - see "View Options" in [Accessibility: Vision](#)
- Linux - [KDE Accessibility Features](#)
- Microsoft Internet Explorer - [Use Magnifier to make things on the screen easier to see](#)

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Listening Rather than Reading

There are several tools that will read out loud the text on websites for you, some of which may already be installed on your computer. Talking browsers (sometimes also called "*voice browsers*") are web browsers that read aloud the text on websites. [Screen readers](#) and some [screen magnifiers](#) are specialized software that read aloud any text on the screen, including that in your web browser. Screen readers and magnifiers often provide a variety of functions such as summarizing the contents of web pages, highlighting the text being spoken, or providing the text on a refreshable braille display. Setting up and learning how to use such tools effectively may need some initial guidance and training. Vendors of such tools usually provide detailed documentation for the customization options and may sometimes provide training and support directly or through third-parties.

Note: Other approaches and strategies for improving the understandability of websites are included in the section [understanding and navigating websites](#) below.

Related Resources:

- Text to speech functions in web browsers:
 - Google Chrome - [Google Chrome Extensions: text to speech](#)
 - Mozilla Firefox - [Add-ons for Firefox: text to speech](#)
 - Opera - [Opera Tutorial: Control Opera using your voice](#)



- Screen reader tools in operating systems:
 - Apple Mac OS X - [Accessibility: VoiceOver](#)
 - Linux - [KDE K Mouth](#)
 - Microsoft Windows - [Get started with Narrator](#)

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Difficulty Hearing Audio on Websites?

Make sure that any multimedia devices attached to your computer such as loud-speakers, headphones, or earbuds are properly attached. Some devices may have buttons or controls on them to switch them on, adjust the volume, or to make other adjustments. Make sure that these devices are setup optimally for you.

Adjusting the Volume

Some keyboards have volume-increase and volume-decrease buttons that will adjust the volume level to your preference. In addition, you can adjust the volume and other sound options from the settings in the operating system of your computer. Depending on the loud-speakers and other sound devices attached to your computer, there may be additional volume and sound controls to adjust. Software tools that are used to show video or listen to audio are called "*media players*." Sometimes they are embedded into the web browser, and they usually have additional volume controls too. Be sure to adjust these options, and to make sure that the sound output of the system or the speakers is not muted.

Related Resources:

- Apple Mac OS Sierra - [Adjust your computer's sound output settings](#)
- Linux - [GNOME/Ubuntu Desktop Accessibility Guide: GNOME Volume Control Manual](#)

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Captions and Transcripts

When audio and videos with audio are produced to be accessible for all users, they contain captions (in some languages "captions" and "subtitles" are the same word). Often these captions are not displayed by default, but need to be switched on in the customization options of the software tool that is used to show video or listen to audio (called "*media player*"). Sometimes text transcripts of the audio are



provided in addition or instead of the captions. Ideally these transcripts are provided directly below or nearby the audio content. Sometimes they are provided as external files or separate web pages.

Note: Sometimes, the media players are embedded directly in the content displayed in your web browser. Check the settings of these media players too.

Related Resources:

- AccessIT - [How do I turn on captions and audio description in my media player?](#)
- Microsoft Windows Media Player 12 - [Show captions or subtitles in Windows Media Player](#)
- NCAM ccPlayer - [ccPlayer Accessibility Features](#)
- YouTube - [Manage caption settings](#)

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Sign Language Videos

Some website owners provide sign language videos as an alternate to text or audio. Usually these are clearly marked with an icon symbolizing a signing gesture or similar. Sometimes sign language is displayed directly within the video, and sometimes the sign language track in a multimedia presentation needs to be switched on, like for [captions](#). In some countries, sign language interpretation services (sometimes called "Video Remote Interpreting - VRI" or "Video Relay Service - VRS") may be available. See also information about [sign language avatars](#) below.

Related Resources:

- Wikipedia - [Sign language](#), [Video Remote Interpreting](#), [Video Relay Service](#)

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Difficulty Typing and Using Your Keyboard?

Typing can be strenuous if the keyboard is not in an optimal position, or if the keys or keyboard design are not comfortable for you. Keyboards have keys with various shapes and sizes, and with different levels of softness. They also have different layouts and shapes that effect your arm and wrist positions. Make sure your keyboard is optimal for you, and consider replacing your keyboard if needed.

Browsing the Web by Keyboard



Many software applications, including web browsers, can be operated through the keyboard. Web browsers generally support the "**Tab**" key to jump from one link or form control to the next. Sometimes these links or controls may not be visible on the screen, or it may be difficult to identify which one is selected. The status bar of the browser window may indicate where a link leads to, and sometimes [enlarging text and images](#) helps you identify the links or controls on the web page. Other common keyboard commands include:

- "**Enter**" - activates links or controls such as form submit buttons
- "**Page-Down**", "**Page-Up**", and "**Arrow**" keys - scroll within the web page
- "**Alt Arrow-Left**" and "**Alt Arrow-Right**" - move back and forth in the history
- "**Ctrl T**", "**Ctrl Tab**", and "**Ctrl W**" - create, switch between, and close browser tabs

Related Resources:

- Keyboard commands in web browsers:
 - Apple Safari - [Safari keyboard and other shortcuts](#)
 - Google Chrome - [Chrome keyboard shortcuts](#)
 - Microsoft Internet Explorer - [Internet Explorer 11 keyboard shortcuts](#), [Internet Explorer 11 for Windows 7 keyboard shortcuts](#), [Internet Explorer 10 keyboard shortcuts](#), [Internet Explorer 9 keyboard shortcuts](#), [Internet Explorer 8 keyboard shortcuts](#)
 - Mozilla Firefox - [Accessibility: Using a Keyboard](#)
 - Opera - [Opera Tutorial: Use Opera without a mouse](#)
- Listings of keyboard commands, including in web browsers:
 - Wikipedia - [Table of keyboard shortcuts](#)

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Customizing Keyboard Functions

Keyboards can be adjusted through the settings in the operating system of your computer, to help you type more effectively with less effort. Examples of such customization include:

Shortcut Keys

Assigning actions, such as selecting menu items or typing in pre-defined text, to an individual key or a combination of keystrokes. For instance, most word editors and web browsers provide a shortcut on the key combination "**Ctrl s**", as an alternate method for selecting the menu item



"save". You can define additional shortcuts for frequent actions that you perform on your computer.

Sticky Keys

In order to facilitate single-handed typing, you can customize your computer so that functions keys, such as "**Ctrl**" or "**Alt**", do not need to be pressed at the same time as other keys to invoke key combinations. For instance, by switching on the sticky keys function, you can press "**Ctrl**" then "**s**" to save, rather than needing to press them at the same time.

Key Filters

Filters can be set to avoid repeating the input through a key that has been pressed down for too long, a key that has been pressed down several times within a short interval, or keys that have been pressed and are immediately surrounding a key that was pressed in advance. This is useful for people with reduced dexterity or who may press keys unintentionally.

Related Resources:

- Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
- Microsoft Windows - [Keyboard shortcuts in Windows](#)

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Using Your Mouse Instead

For people who are more comfortable using the mouse (or other types of pointing devices), rather than using the keyboard, most computer operating systems provide "*on-screen keyboards*" (visual display of a keyboard on the computer screen) that can be used with a mouse rather than typing in the information through the keyboard. In addition, many web browsers support "*mouse gestures*" and other types of enhancements for using the mouse. Sections [adjusting the mouse settings](#) and [customizing the mouse-pointer](#) provide further information about improve your efficiency in using the mouse.

Related Resources:

- On-screen keyboards in operating systems:
 - Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
 - Microsoft Windows - [Use the On-Screen Keyboard \(OSK\) to type](#)



- Listings of tools, including on-screen keyboards:
 - [Better Living Through Technology: On-Screen Keyboards](#)

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Using Alternate Keyboards

There are a number of ergonomic or specialized keyboards that can be used instead of the regular keyboard. Ergonomic keyboards have special designs and key layouts to reduce strain or to help you type more effectively. Specialized keyboards include ones with larger keys or larger key labels, ones with illuminated keys, ones that compensate for trembling and other dexterity limitations, ones with only a single switch, and many more. While ergonomic keyboards are often available at ordinary computer retailers, specialized keyboards are usually developed by [assistive technology](#) vendors.

Note: Laptop users can attach external keyboards in addition to the one built into the computer.

Related Resources:

- [Better Living Through Technology: Keyboards](#)

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Using Voice Commands

Voice recognition can be used to dictate text or to control the entire computer. For instance, so called "*voice commands*" can be used to launch or to close applications such as the web browser, or to perform actions such as selecting links or scrolling on a web page. Some computer operating systems include such voice recognition capabilities. Voice recognition tools usually need training to better learn your voice, and may still be prone to substantial error rates; however, these software can be effective for people who have difficulty typing and using the keyboard or mouse effectively.

Related Resources:

- Voice recognition tools in operating systems:
 - Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
 - Microsoft Windows - [How to use Speech Recognition in Windows](#)
- Listings of voice recognition tools, including support in web browsers:
 - Opera - [Opera Tutorial: Using Opera with your voice](#)



- Wikipedia - [List of speech recognition software](#), [Speech recognition in Linux](#)

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Grammar, Spelling, and Other Tools

Grammar and spelling checkers can help you identify mistakes and avoid needing to re-type text in an online form. Most web browsers have spell-checking capability, and sometimes the spelling functionality can be extended using browser-based tools (sometimes called "*add-on*" or "*extension*"). Some users prefer to type long texts in word-processing software (such as "*Microsoft Word*" or "*Open Office Write*") with which they are more comfortable. Then, they can copy the text into the online forms.

Word-prediction tools highlight a selection of matching words based on the characters that you type, to avoid needing to type out the complete word each time. These tools are used in addition to word-processing tools or web browsers, and are sometimes used by typists and captioners among others.

Related Resources:

- [Better Living Through Technology: Text input Projects](#)

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Difficulty Using the Mouse?

Pointing devices, such as the mouse or the touchpad on some laptop computers, can be difficult to use. There are a number of alternate devices which may be more optimal for you, and there are many settings that can be customized, including slowing down the mouse or enlarging the mouse-pointer on the screen.

Adjusting the Mouse Settings

Most computer operating systems provide options to adjust the mouse settings. In particular, you can adjust the sensitivity of the mouse to movement, in order to slow it down. You can also adjust the period between two clicks that is needed to initiate a "*double-click*" (typically used to launch software applications from the desktop), or you can adjust the configuration of the mouse buttons for left-hand or right-hand use. Many web browsers also support "*mouse gestures*," so that specific mouse movement or mouse-button patterns can be set as shortcuts to computer commands.



Related Resources:

- Adjusting the mouse settings in operating systems:
 - Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
 - Microsoft Windows - [Change mouse settings](#)
- Mouse gestures support in web browsers:
 - Google Chrome - [Google Chrome Extensions: mouse gestures](#)
 - Mozilla Firefox - [Add-ons for Firefox: mouse gestures](#)
 - Opera - [Opera Tutorial: Mouse gestures in Opera](#)

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Customizing the Mouse-Pointer

The size and color of the mouse-pointer on the screen can be adjusted to make it easier for you to identify and locate it. In addition, most operating systems provide options to show a trail when the mouse-pointer moves on the screen, or to highlight the mouse-pointer when a specific key (such as the "Ctrl" key) is pressed.

Related Resources:

- Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
- Microsoft Windows - [Change mouse settings](#)

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Using Your Keyboard Instead

Accessible websites and software applications can be operated entirely through the keyboard. The sections [browsing the Web by keyboard](#) and [customizing keyboard functions](#) provide information about using your keyboard effectively and comfortably, to control your computer and navigate on the Web.

In addition, most computer operating systems can be set to control the mouse-pointer and simulate mouse interaction through the keyboard. Typically, this is achieved by using the arrow keys and other keyboard commands, so that a keyboard with dedicated arrow keys is necessary. Sometimes this may require replacing the existing keyboard or using an additional external keyboard on laptops. The section [Using Alternate Keyboards](#) provides information about selecting an optimal keyboard for yourself.



Related Resources:

- Apple Mac OS X - [Accessibility: Physical and Motor Skills](#)
- Microsoft Windows - [Using Your Keyboard](#), [Use Mouse Keys to move the mouse pointer](#)

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Using an Alternate Mouse

Similarly to [using alternate keyboards](#), there are a number of ergonomic or specialized mice to help you be more effective and comfortable. Ergonomic mice have special designs and sizes to reduce strain. Examples include trackballs, which are controlled by rotating a ball in different directions with your fingers rather than moving your hand, or joysticks, which are controlled by moving a lever in different directions. Specialized mice include ones with custom designs for specific users, ones with additional keys, ones that compensate for trembling and other dexterity limitations, and many more. While ergonomic mice are often available at ordinary computer retailers, specialized mice are usually developed by [assistive technology](#) vendors.

Note: Laptop users can attach external mice in addition to the pointing device built into the computer.

Related Resources:

- [Better Living Through Technology: Pointer Control - Alternatives to Mice](#)
- Wikipedia - [Pointing device](#)

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Difficulty Understanding and Navigating Websites?

Understanding and navigating websites can be difficult when the structure or the content is overly complex. Often these types of difficulties relate to usability and accessibility shortages in the design of the websites; however, some software tools and approaches may help you use such websites more effectively.

Reading Assistance

Long text is often difficult to read and understand, especially when it is not written clearly and simply. Some users prefer to copy long texts into word-processing software (such as "*Microsoft Word*" or "*Open*



Office Write"), and generate automated summaries. Other users prefer [listening rather than reading](#), including listening and reading at the same time, to help them read and understand the content. Some browser-based tools (sometimes called "*add-on*" or "*extension*") provide additional functionality to assist reading.

Related Resources:

- Google Chrome - [Google Chrome Extensions: readability](#)
- Mozilla Firefox - [Add-ons for Firefox: readability](#)

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Animation and Pop-Up Window Blockers

Most web browsers provide options to control potentially distracting content such as pop-up windows or animations. Some browser-based tools (sometimes called "*add-on*" or "*extension*") provide additional capability to identify and block animated, blinking, flickering, or otherwise distracting (sometimes hazardous) content.

Related Resources:

- Apple Safari - [Safari Add-ons: blocker](#)
- Google Chrome - [Google Chrome Extensions: pop-up blocker](#)
- Mozilla Firefox - [Add-ons for Firefox: blocker](#)

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Symbols Instead of Text

Some specialized web browsers and online services convert text into symbols and icons that are easier to understand and use by some people with learning disabilities. There are different approaches and initiatives in several countries, so it is important to become familiar with the services and developments in your region. Local disability organizations may have more information about available services and products.

Related Resources:

- [Better Living Through Technology: Symbols for Literacy & Communication](#)



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Sign Language Avatars

Sign language avatars are software tools that convert text into computer-generated sign language animations. While these do not achieve the quality of professional sign language interpreters, they can be used individually and independently to convert text into sign-language. Some websites provide [sign language videos](#) as an alternative to audio and text.

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Terminology

Assistive technology

Assistive technologies are software or equipment that people with disabilities use to improve interaction with the web, such as **screen readers** that read aloud web pages for people who cannot read text, **screen magnifiers** for people with some types of low vision, and **voice recognition software** and **selection switches** for people who cannot use a keyboard or mouse.