



Accessibility Tips: Considerations For Shared Computer Workstations in Shelters and Transition Houses

The purpose of this document is to provide guidance for women's shelters and transition houses across Canada on making shared computer workstations accessible. A universal design¹ perspective has been used to ensure that each shared computer workstation meets the needs of all users while minimizing barriers. This approach will improve access, safety, and user participation and achieve the highest level of usability of the workstations. Shared computers in shelters allow survivors whose devices may still be monitored to safely access the Internet.

Environmental Accessibility for Shared Computer Workstation

When considering equipment for a shared computer workstation that meets universal design principles, the following environmental accessibility factors should be considered:

Location of shared computer workstation

- Consider locating the shared computer workstation on the main level of the building where the need to navigate stairs is minimized or avoided. The computer workstation should be positioned away from a window to minimize glare or there should be blinds or curtains on the windows. Door handles and light switches should be accessible.

Room access

- Ensure that the doorway sizes and thresholds to the room where the shared computer workstation is located meet provincial or territorial building codes for accessibility.

¹ Universal Design: the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design (Universal Design Network of Canada. (2023, March 22). 7 UD Principles and 9 Goals - Universal Design Network of Canada. <https://universaldesign.ca/principles-and-goals/>)

Navigation pathways

- Ensure that all walkways, aisles, or corridors required to access the shared computer workstation are clear of obstructions (i.e. remove boxes, garbage cans, tripping hazards, etc.).

Signage

- Ensure that adequate signage is available in high contrast and alternative formats (large print that is easy to read, Braille, etc.).

Lighting

- Ensure that the shared computer workstation area has adequate and adjustable lighting. Some survivors have difficulty viewing a computer screen with overhead fluorescent lighting. Task lighting should also be available. Provide dimmer switches and task lamps where possible.

Clutter-free space

- Provide open space and reduce the clutter around and on the shared computer workstation.

Noise levels

- Locate the shared computer workstation in an area with minimal noise levels.

Building safety

- Ensure that the location of the shared computer workstation meets all standard safety requirements. Install multi-sensory alarm signals (auditory such as beeping, visual such as flashing lights). Ensure that emergency and safety equipment is clearly identified and placed in a conspicuous location.

Access to assistance

- Provide users with assistance, as required, with accessing the computer.

If a service is available in your community, carrying out an accessibility assessment by a local service provider is recommended whenever possible to ensure an accessible, inclusive, and safe public space.

Equipment Considerations for a Shared Computer Workstation

An accessible shared computer workstation needs to include the following equipment:

Power height-adjustable workstation with extended range

- A power height-adjustable workstation will allow a user to adjust the table to an appropriate working height with an easy, single-button adjustment. A height-adjustable workstation with an extended height range will likely meet the range of access requirements for all users (i.e. a survivor who is short in stature may need to access the desk as low as 22" in height, while a person using a manual or power wheelchair may require a specific working height and a very tall person may need the workstation to raise to an appropriate height for standing to use the computer). Please note:
 - No items should be left underneath the workstation to ensure that there is adequate clearance for the user's lower extremities. No shelves, cabinets, or windowsills that would impede the height adjustment range should be above this desk.
 - Cable and cord lengths for power and external peripherals must be considered and managed. A cable management system may be suitable to manage the power cords for the desk, computer, monitor, and computer peripherals to allow the workstation to move up and down (within its full range) without being stretched or pulled.

Office chair

- A stable, supportive office chair should be available at the shared computer workstation. Seating options would preferentially be designed as a multi-user product, in a standard size, with a medical grade fabric, vinyl, or a similar durable and easy-to-clean fabric for sanitary reasons. Chairs should include a five-star base with wheels for maneuverability. An office chair should have the following adjustability features to be used by a variety of users: seat height, seat tilt, seat depth, backrest height, backrest angle, armrest height and swivel.

Computer system

- An up-to-date computer system with the most recent Windows operating system is recommended. Windows updates should be completed when they are offered. The computer should have a sufficient processor, random access memory (RAM), and solid-state drive memory (SSD) for the programs required for the computer. Security for the computer system needs to be considered.

Monitor

- A monitor with the following features is recommended to meet the needs of most computer users:
 - **Minimum 24" screen size** – This is a standard size recommended for survivors who may use magnification or zoom features.
 - **Low blue light, flicker-free LED backlighting** – This reduces screen flickering, which can be more tolerable for the eyes.
 - **1080p resolution** – This should provide sufficient image quality for basic magnification.
 - **VESA compatibility** – VESA compatibility means there are mounting holes on the back of the monitor. A monitor with VESA compatibility would also be recommended, as this can enable mounting on a monitor arm if procurement of one (for additional positioning adjustability) is possible.

Built-in Windows Display Settings

- Windows offers built-in [display settings](#) that allow the user to make the screen contents easier to see. It is recommended that the default display setting be set to 125% in Windows for all users. Additional settings may need to be manually adjusted for each user's needs. These settings include:
 - **Pointer and cursor settings:** Windows offers [built-in pointer and cursor settings](#) that allow the user to easily see the mouse pointer and text cursor. Features include pointer and cursor size adjustments, colour customizations, pointer trails, and visual feedback for touch points on the screen.
 - **Dark Mode/Light Mode:** The default Windows setting is a white background with black text. Windows can be set to [dark mode or light mode](#). Dark mode applies a black background with white text to Windows menus, which may be easier to see for some users.
 - **Contrast themes:** Windows has built-in [high-contrast features](#) that can make the screen easier to view. Different themes incorporate different colour combinations for background, text, hyperlinks, and buttons. Windows has built-in themes as well as the ability to create custom themes. These themes can be toggled on and off using a keyboard shortcut but will have to be manually adjusted for each user's needs.
 - **Magnifier:** If users require additional magnification, the [Windows Magnifier](#) can be used. Windows has a built-in magnifier that can magnify all or part of the screen to assist users in viewing the computer. The Magnifier can be toggled on and off using a keyboard shortcut (Press Windows key plus the + sign to turn on and Windows key plus the Esc key to turn off) and can be adjusted to zoom in 25%, 50%, or 100% increments up to 1600%. Magnifier is available in full screen, lens, or docked modes.
 - **Colour filters:** Windows allows users to adjust the colours on the screen using [colour filters](#). Available filters include grayscale, invert, grayscale inverted, deuteranopia, protanopia, tritanopia. These filters can be toggled on and off using a keyboard shortcut (Press Windows key plus the Ctrl key plus the C key) but will have to be manually adjusted for each user's needs.

- **Narrator:** [Narrator](#) is a screen reader that describes what is on the screen; this includes menus and all text. It allows users who cannot see the computer screen (limited to no vision) to access the computer using auditory feedback. The user accesses this feature using keyboard shortcuts. If a user is not familiar with Narrator, they may have difficulty with using it.

Mouse

- A standard wired mouse can be used by most computer users. A mouse with no curves would offer an ambidextrous shape that can be used by both right-handed and left-handed users. The primary mouse click button can be changed to the left or right mouse button, accessed through [Windows mouse settings](#). A wired product is recommended to eliminate the need for charging.
- A stationary, **trackball mouse** is a recommended alternative option for users who are encountering difficulties with manually controlling a standard mouse. A trackball mouse enables the user to move the pointer on the screen while moving the trackball with any part of their hand. No gripping is required. A wired product is recommended to eliminate the need for charging.

Keyboard

- A standard keyboard (full sized keys and attached number pad on the right side) can be used by most computer users and should be made available at this workstation.
- A **large print, high contrast keyboard** is recommended as an alternative option for users who have difficulty with seeing the keyboard keys. Keys with large print letters and either black letters on yellow keys or white letters on black keys is recommended, as this high contrast scheme can be easier for survivors with low vision to see.

Dictation

- Providing dictation software will enable users who are encountering challenges with typing to type by talking into the computer. Dictation options may include: [Windows Voice Typing](#), [Microsoft 365 Dictation](#), [Google Dictation](#), [Dragon Professional](#).
 - **Built-in Windows dictation** – Windows offers a feature called Voice Typing, which is activated by using a keyboard shortcut (Press Windows key plus the H key).

- **Built-in Microsoft 365 dictation** – Microsoft 365 offers a built-in dictation feature in Microsoft Word and Outlook. It is activated by clicking the microphone icon on the top ribbon.
- **Built-in Google Dictation** – Google search engine offers a “search by voice” feature by clicking the microphone icon next to the search bar. Google Docs offers a “voice typing” feature by clicking Tools -> Voice Typing on the top toolbar.
- **Dragon Professional** – Dragon Professional is a paid software that allows users to fully control the computer for mouse and keyboard actions, by using their voice.

Computer headset (wired)

- An up-to-date, wired headset with an adequate microphone should be available to allow survivors to use the software requiring a headset, such as dictation or screen reading software. A headset will also allow for privacy with computer use in a shared space. A wired product is recommended to eliminate the need for charging.

Lighting

- Adjustable lighting is recommended to accommodate a variety of users. Dimmable light switches and task lighting should be incorporated into the workstation area to enable users to adjust lighting as required.

Literacy Support

- Installation of [Grammarly software](#) is recommended to assist users with spelling, grammar, tone, and clarity while writing documents or emails.

Video Relay Service

- [Canada Video Relay Service](#) (VRS) is a free app recommended for installation on any shared computer. The individual can login with their account. Canada VRS enables Deaf, Hard of Hearing or speech-impaired Canadians who use American Sign Language (ASL) and langue des signes québécoise (LSQ) to make telephone calls via Internet-based video conferencing technology. It is available 7 days a week, 24 hours a day, 365 days a year.

Captioning

- Live captioning can occur for content on the screen (videos, audio files, video calls) using [Google Chrome Live Captions](#). As such, Google Chrome should be installed on each computer and Live Captions should be enabled. Audio and captions on Chrome are processed locally and stay on the device. Live Caption is only available in English. It can also be accessed on an Android device.
- To offer captions for live meetings or conversations, Zoom or Microsoft Teams can be used.

Augmentative and Alternative Communication (AAC)

- Survivors may have a device or communication board they use to communicate. If they do not have a way to communicate, the anti-violence worker can ask if they can write, type, point to letters to spell out messages, or point to pictures of things the survivor wants to say. Having basic communication boards saved on the computer and printed out is recommended. Free communication boards from AssistiveWare including the [Core Word Board](#), the [Quick Communication Board](#), and the [Proloquo board](#) are recommended. It is recommended that these boards be laminated for longevity.
- A user may require a **pointing stick** to select their choice, or they may need the shelter worker to point to each item while the survivor offers a gesture to indicate yes and no (i.e. ask the person if they would like to blink once for yes and blink twice for no, or something similar).

Considerations for Working with Survivors with Disabilities

Asking Needs

- Survivors with disabilities may have a wide variety of computer workstation access needs. Asking the person how they typically use a computer and what they would like help with is critically important. Please do not assume what a survivor would need based on your previous experiences. For example:
 - A person who is blind may require audio/screen reading features, or they may prefer to read in Braille. A person who is blind does not necessarily read Braille.
 - A person with cognitive challenges may benefit from an anti-violence worker sitting next to them to help them complete their tasks or wearing a noise-cancelling headset to reduce the ambient noise.
 - A Deaf person may like to read instructions and captioning, or they may prefer accessing a video-relay service to have the information delivered in American Sign-Language.
 - A person with a spinal cord injury may have varying degrees of hand function. They may be able to use a keyboard, mouse, and phone with no support, or they may require a stylus, alternative mouse, and dictation software.

Orienting Survivors to Shared Computer Workstations

- It is important to provide multiple ways a survivor can learn about what is offered at the shared computer workstation:
 - Have anti-violence workers provide verbal and/or hands-on orientation
 - Provide written orientation (e.g. posted on the wall, desk, or in a binder) and digital instructions (e.g. easily linked on the computer desktop)
 - Provide audible orientation (e.g. audio file on the computer)
 - Provide picture-based orientation
 - Provide video orientation with closed captioning
 - Provide information online of what is available, so a person can understand what they will have access to before coming in

Transportation Considerations

- Survivors with disabilities also face significant barriers to safe and reliable transportation. Services offered by phone, email, and/or video conferencing may need to be arranged. A trusted family member, friend, or caregiver may need to be involved to support the survivor with the disability.

For more information about assistive technology, see our information sheet, Common Types of Assistive Technology.

Technology-Facilitated Gender-Based Violence (TFGBV) is part of a continuum of violence that can be both online and in-person. If you or someone you know is experiencing TFGBV, you are not alone. You can use www.sheltersafe.ca to find a shelter/transition house near you to discuss options and create a safety plan. You don't need to stay in a shelter to access free, confidential services and support.

We gratefully acknowledge the [Neil Squire Society](#) for the creation of this information sheet.



For more information about using tech safety visit

www.techsafety.ca

