

# Accessibility and structured code

## Web accessibility

“Accessibility” means the inclusive practice of making websites usable by people of all abilities and disabilities. When sites are designed, developed and edited according to standards for accessibility, all users can have equal access to information and functionality. After all, Canadian law makes no distinction between the requirement to provide accessible brick-and-mortar premises and the requirement to provide accessible online tools.

Accessibility can be a difficult concept to understand because many of the changes can't be seen. A user without sight has to convert the website into audio. There is nothing visual at all. That is what a screen-reader does. It literally reads the screen out loud with special controls.

Tangle Media has focused on providing accessible websites as a best-practice, rather than doing so only in specialized cases. To further this goal, in 2013 we attended the Assistive Technologies Industry Association conference in Orlando, Florida to improve our ability to deliver accessible websites in all cases, and inclusively to all users. Recently we have worked with Shell Canada Ltd. to work on improving web-accessibility for their internal staff. The lesson we have learned is that accessibility does not require a second ‘version’ of the site. It is not difficult to do, and does not need to compromise the ‘default’ version of the website. In fact, similarly to accessibility in physical spaces, it will often enhance outcomes for everyone.

Tangle Media's recommendation is that the PCN website be delivered to be compatible with screen-reader software, which is the method by which visually impaired users navigate the web. Unless deliberately designed to maximize compatibility with screen-reader programs, the majority of websites prove exceedingly frustrating or outright impossible for visually impaired users to navigate.

Many users navigate the internet despite limited motor-ability. Providing rich keyboard-based controls and forms, we can ensure that users who overcome motor or mobility barriers can access the website using alternate input types. Special care can be taken to ensure that ‘keyboard traps’ are avoided, such as when the keyboard becomes captured by or stuck in a video player.

We will implement the Web Content Accessibility Guidelines (WCAG) [ <http://www.w3.org/TR/WCAG20/> ] which are an accepted international standard (ISO).

Many of these standards are easily achieved and are little more than a matter of courtesy to users who rely on them. Certain other standards are harder to implement but can make a world of difference to users with barriers to the ordinary operation of the site.

Of note, an emphasis on web accessibility dovetails with the concept of usability, which is to endeavour to present all information clearly, and obviously, and to emphasize that the most important elements always in the most correct or intuitive place on a site. By promising to deliver both a usable site, and a highly accessible site, we can be sure that all stakeholders and visitors to the Primary Care Network website will have an equal opportunity to use these online tools.

### Per the W3C:

The guidelines and Success Criteria are organized around the following four principles, which lay the foundation necessary for anyone to access and use Web content. Anyone who wants to use the Web must have content that is:

- **Perceivable** - Information and user interface components must be presentable to users in ways they can perceive. This means that users must be able to perceive the information being presented (it can't be invisible to all of their senses)
- **Operable** - User interface components and navigation must be operable. This means that users must be able to operate the interface (the interface cannot require interaction that a user cannot perform)
- **Understandable** - Information and the operation of user interface must be understandable. This means that users must be able to understand the information as well as the operation of the user interface (the content or operation cannot be beyond their understanding)
- **Robust** - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies. This means that users must be able to access the content as technologies advance (as technologies and user agents evolve, the content should remain accessible)