Enabling Access Through Web Renewal

Handbook

wlu.ca

LAURIER
Inspiring Lives.

This handbook was produced by Wilfrid Laurier University with support from the Government of Ontario.

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TABLE *of* CONTENTS

Introduction

Imagine you are standing in front of a closed door. On the other side of it is what you need to be successful: connect with friends, colleagues and family; stay healthy; find the services you need; get an education; launch a career; and be financially independent. But you don't have the key to the door. You can't even find the keyhole or the handle.

You think there must be instructions written somewhere on the door because as other people approach they quickly scan its surface and open it without a problem. But you can't see the instructions or, if you can, you don't understand them—it just looks like gibberish to you. Why aren't you welcomed in? Is that fair? Are you somehow undeserving? Or is it the design of the door that's wrong?

People with disabilities time and time again come up against locked doors in the digital world. They do their part to creatively work around such obstacles, but as the doorkeepers—the owners, designers and operators of websites—we must do our part to change the design and format of our websites so that they are accessible to all who wish to enter. No one in our communities should be left on the outside. This is particularly true for websites of large public-sector organizations whose mandates are to deliver fundamental services in health, education or transportation. To deny certain people access to this type of vital information is simply wrong.

This handbook is written as a guide for large public-sector organizations (with 50 employees or more) as they take the necessary steps to make their websites accessible. Also included are case studies, highlighting insights gleaned from Phase 1 of Wilfrid Laurier University's recent web renewal process, launched in the fall of 2014.

Your initial motive for undertaking this work may be to meet legal requirements; but as the work progresses, it is important to embrace the culture of inclusivity inherent in accessible design. You will find that accessible websites do not have to compromise on aesthetics and have many tangible benefits for users with and without disabilities. And often, because they reach more people, they help with the bottom line—whether you are looking to promote a particular message, recruit new students or raise more funds.

That's what happens when you redesign your door for easy access and invite everyone in.

Why 1:

Why accessible websites?

Accessible design is good for all

Large public-sector organizations usually have large, multi-page, multi-department—and often cumbersome—websites. How many times has someone tried to access information on such a site only to be frustrated and give up? How many times has that happened to you? It's a common experience for people both with and without disabilities.

Accessible design and the principles of universal design, with their emphasis on clear, streamlined and flexible presentation, content and navigation, can lessen such frustrations. An accessible website is beneficial to all users and certainly to the organizations that create them because it means their website is better able to reach all members of its target audience.

More effective websites for everyone
Redeveloping a website to better serve people with disabilities also has these additional benefits:

Better Search Engine Optimization (SEO): More headings and subheadings, as well as alt (alternative) texts for images, means more content is available for search engines.

Accessible design works well with good mobile design: No organization can ignore the popularity of mobile devices to access the web. A university or college looking to recruit more students will want a website that works well on a small screen. Walk-in clinics and ERs will want information on their locations and hours of operation easily accessed on a cellphone. Accessible design and responsive design share many best practices; for example, always including keyboard commands for navigation.

Reaching people less fluent online, people with low literacy or those who are not fluent in the language of the site: A university or college may also be looking to recruit continuing education or international students. A city website listing

amenities and tourist attractions may be accessed by would-be vacationers speaking a myriad of languages. Accessible design includes these helpful elements: clear, simple and consistent language, navigation and links; supplemental illustrations; blocks of information divided into groups with appropriately tagged headings and subheadings; text that does not blink or flash; and online forms that provide users enough time to read and use content.

Reaching people accessing websites in noisy environments: Captioning of audio content is essential for this group.

Reaching people with low-bandwidth connections or older technologies: An organization cannot assume that everyone's access to the web is of the same quality. Accessible design's emphasis on alt texts and text alternatives for all multimedia and images allows users to bypass these bandwidth-hogging elements without losing any information.

RESOURCES

For more information on the financial, social, legal, policy and technical factors when developing a business case for web accessibility, visit:

World Wide Web Consortium (W3C)/ Web Accessibility Initiative

W3C is an international consortium of web organizations and companies. Its members work to develop international web standards.
www.w3.org/wai

Why 2:

Voices from the Laurier community

People with disabilities are not a homogenous group. Disabilities vary considerably between individuals as does their experience accessing information in the online world. We spoke to three people from the Laurier community about what frustrates them and what they would like to see change on the web.

Age: 62

Status: Professor

Faculty: Religion and Culture

Meet

Dr. Janet McLellan

Dr. Janet McLellan, 62, is a professor in the Religion and Culture Department, Faculty of Arts, at Laurier. She also serves as the department's Graduate Officer. In 2007, a sudden onset of glaucoma, which remained for a time undiagnosed, resulted in a permanent reduction in vision and light blindness. Her pupils cannot retract, and she is so sensitive to light that she must wear a hat and sunglasses inside and out. She jokes, "People don't know what I look like anymore, and I have a great collection of hats."

What type of light can you tolerate?
Janet: Sunlight (natural light) is not so bad with my hat and glasses. But indoor artificial lights are difficult for me—and light coming from screens is bad.

So can you use screen technology at all?
Janet: I can't use a cellphone. E-readers (with low-glare e-ink screens) are better than iPad screens.

What about desktop or laptop computer screens?
Janet: I have about four hours a day of computer-based work in me. That's it. Any more and I get a bad headache and have to sit in a dark room for hours.

So how do you manage your work as a professor?
Janet: I can manage emails on screen—that's not onerous. My course work is not a problem. I have a teaching assistant who does some of the computer work, such as surfing the web for teaching material and posting marks. It's the extra work—my administrative duties—that really hurts me. A lot of it is doing paperwork and filling out forms online.

What frustrates you about websites?
Janet: I think they should outlaw entirely small type online, say 8 point fonts or smaller. Also I don't like it when there's no consistency between different web pages within a large site. Each section or page of the site has a different font style and size, background and navigational icons. And the navigational icons are in different places and are not labelled, so often I don't know what they do. I can't deal with coloured backgrounds.

What assistive technologies do you use?
Janet: I use screen-magnifying software. I can enlarge the text online so I can read it, but I have to scroll up and down more so I have to focus more intensely—and that's tiring.

What can website designers and developers do to help you navigate websites and retrieve the information you need faster?
Janet: I need bold 16 point type and matte white (with a touch of grey) backgrounds that maximize contrast and minimize glare. Since I only have so many eye hours a day, I don't want to spend a lot of time figuring out how to navigate through a site. I need clearer and more consistent navigational icons which are always in the same place on screen and are text-labelled. I would like simplified content that gets to the point and is easy to find.

Age: 27

Status: Undergraduate Student

Studies: Health Studies

Meet
Kyli Gregson-Caplan

Kyli Gregson-Caplan, 27, is halfway through a Bachelor of Arts and Science degree majoring in Health Studies at Laurier. She plans to go on to medical school and eventually specialize in either oncology or hematology. At 11 years old, she developed a venous sinus thrombosis—a blood clot in her sinus cavities—that led to a buildup of pressure inside her skull and eventually led to a permanent vision loss. Kyli describes herself as "mostly blind" and estimates that she retains about five per cent of her eyesight. She gets around campus with the aid of a cane and sighted guides.

What can you see?
Kyli: I see high-contrast black-and-white shadows and shapes. I can't see colour variations. I can see the shadow on the ground of an item but not the actual item.

What assistive technologies do you use to access the web?
Kyli: I use a screen-reading software with all keyboard commands. But it has its limitations.

Such as?
Kyli: Well, I can't read anything on Facebook. Every time the page refreshes—which it does a lot on Facebook—the screen reader goes back to the top of the page and starts reading again. So you can never get through the page.

Any other frustrations?
Kyli: Drop-down menus are a problem if each option is a link. When you cursor down, the screen reader automatically clicks on the first option's link. So I can never read all the options. I can't get down the list. It's incredibly annoying.

As well, on discussion boards a person with sight can tell by the change in colour of the headings what you've already read. But if you use a screen reader, you don't know what comments are new and what you've already read. So you have to go through all the comments. Once I had to go through 40 comments to find the new ones I hadn't read yet.

Meet
Chantal Huinink

Chantal Huinink, 31, is a graduate student at Laurier, working toward a double Masters in Social Work and Divinity. She has cerebral palsy and fine motor control issues, as well as a visual impairment. She uses a wheelchair to get around and has two assistants per term to help with research and editing on the web.

Age: 31

Status: Graduate Student

Studies: Social Work and Divinity

What is your visual impairment?
Chantal: I can't see details.

Can you use a keyboard?
Chantal: It's challenging. I can do a small amount of one-finger typing and I can use the mouse, but with difficulty.

What assistive technologies do you use to access the web?
Chantal: I use screen-magnifying, screen-reading and voice-to-text software.

What are some of the frustrations you have when accessing websites?
Chantal: Small print. I need the screen blown up four times the actual size. So I only see a quarter of the screen at a time. I have to do a lot of scrolling up and down and left to right. It takes me triple the amount of time to read a page.

Any other frustrations?
Chantal: Well, the screen reader doesn't read anything that isn't real text (like an image). And it's challenging to find stuff in the corners of the screen and the right buttons to click. Also, security features and procedures are difficult for me. I can't see the numbers and letters in the CAPTCHAs [an online security feature]. And the backgrounds should be neutral. Negative space can be intrusive.

What can website designers and developers do to help you navigate websites and retrieve the information you need faster?
Chantal: Make everything on the page real text so the screen reader can read it. Put more tabs and subheadings in the text so we can just jump to the information we're looking for. I need high contrast and clear, bold type. And put less text on the page and put this condensed text in the centre of the screen with narrower margins so I don't have to do much scrolling left to right.

Why 3:

Demographics

The rights of people with disabilities

Fifty years ago, when the disability rights movement was in its infancy, Canadians with disabilities struggled to get around physical, communication and attitudinal barriers. Many individuals were blocked from pursuing education and gaining employment. Too many people with disabilities lived their lives in institutions, in poverty and in the margins of society.

Thanks to the hard work of disability rights activists, Canadian society today has become more inclusive, and public awareness has grown. Yes, there are still barriers, but those barriers are slowly coming down. And as accessibility legislation, such as Ontario's Accessibility for Ontarians with Disabilities Act (AODA) 2005, is fully implemented, more people with disabilities will gain greater independence and access to education and employment.

Furthermore, what is considered a disability has changed to encompass a wider variety of conditions. These include sensory, intellectual and developmental, learning, mental health and physical disabilities. They can be permanent or temporary and be present at birth or brought on by injury, disease or age. Some invisible impairments, such as learning disabilities, can have just as detrimental an effect as a sensory impairment on a person's ability to access information in the digital realm. Your website must be flexible and adaptable enough to be used successfully by all people regardless of their disability.

Disabilities: seen and unseen

When people think about disability, many people will think first about the visible devices and aids associated with the people who have disabilities: wheelchairs, guide dogs, white canes and hearing aids. "When Wilfrid Laurier University started its Accessible Learning Centre (ALC) 25 years ago, most of the awareness and focus was on physical disabilities," says Linda Chamberlain, disability consultant at the ALC. "But today, we also work with students with such disabilities as dyslexia, autism and OCD (obsessive-compulsive disorder). Not all disabilities are visible."

The trend toward inclusivity and early diagnosis means that more people with learning disabilities, attention deficit hyperactivity disorder (ADHD) and various degrees of autism can successfully navigate through the public school system, move on to higher education and function independently when accessing health care and government services.

Today, Laurier's ALC works with students with disabilities to support their academic studies. Physical, mental and sensory impairments come in a variety of forms, and often ALC staffers work with students with more than one disability. Explains Linda, "Someone who has a chronic disease like multiple sclerosis may have a physical impairment, but also may be depressed and having a hard time coping emotionally with the illness."

People with visual and hearing impairment run the spectrum from zero to partial ability. "No two individuals are the same. I've worked with a student who had an unusual colour blindness. He couldn't see blue and he saw red as black. On screen, he couldn't see colour cues or emphasis shading. Another student, with limited vision, could cope with text on screen but had a hard time with graphs and needed text descriptions," Linda says.

People with ADHD and OCD, explains Linda, often need extra support navigating the web, finding information they need, planning, organizing and filling out online forms.

Financial clout

As baby boomers enter their senior years, populations worldwide are aging. It's been predicted that in Ontario by 2017 there will be more seniors (aged 55 and older) than children (aged 14 and under).[1]

As they age, many baby boomers will develop a temporary or permanent disability. As well, more people with disabilities

1. Ministry of Finance Report, Fall 2009 Ontario Population Projections 2008–2036

BEST PRACTICES FOR WEBSITE DESIGN

- **Limit your assumptions**—you don't know who will be accessing your site. Organizations should expect a wide diversity of users.
- **Work in flexibility and adaptability**—sites need to build in alternative methods to access and deliver information.
- **Aim for good intuitive headings and subheadings**—what you want to put front and centre on your site may not be the same as what users are looking for or want to see first.

today are successfully achieving higher levels of education and higher-paying employment. Combining those two facts, it seems clear that the financial clout of people with disabilities is on the upswing.

And their influence on spending extends outward. The sheer number of baby boomers with disabilities, plus their friends and family, will most likely direct their loyalty toward organizations that are leaders in accessibility. Such large numbers give them a strong presence in mainstream and social media. And as knowledge about web accessibility grows, more consumers, with or without disabilities, will insist that the organizations they deal with embrace universal design principles and accessibility standards.

What kind of financial clout are we talking about? Currently, the total disposable income of Canadians with disabilities totals $25 billion.[2] People with disabilities and seniors (age 55 and up) in combination earn $536 billion in income in Ontario. That's 40% of the total income in Ontario.[3]

And where could that spending be directed? Predictions suggest that improved accessibility in Ontario, in both the built environment and communications, can generate up to $9.6 billion in new retail spending and up to $1.6 billion in new tourism spending.[4]

Public-sector organizations looking to fundraise, attract customers or provide essential services cannot afford to ignore or deny service to such a large-income group.

2. Hyun-Duck Chung & Hadi Salah, MaRS Market Intelligence,Towards an Accessible Future: Ontario Innovators in Accessibility and Universal Design, (MaRS Discovery District, February 2013), pg. 3 www.marsdd.com/wp-content/uploads/2014/01/Towards-an-Accessible-Future-Ontario-Innovatorsin-Accessibility-and-Universal-Design1.pdf
3. Alison Kemper, Kevin Stolarick, James Milway & Jutta Treviranus, Martin Prosperity Institute Report, Releasing Constraints: Projecting the Economic Impacts of Increased Accessibility in Ontario http://martinprosperity.org/2010/06/14/releasing-constraints-projecting-the-economic-impacts-of-increased-accessibility-in-ontario/
4. Ibid.

RESOURCES

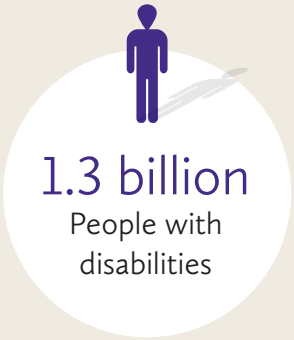
Accessibility Directorate of Ontario
The Accessibility Directorate of Ontario leads the implementation of the Accessibility for Ontarians with Disabilities Act (AODA) to achieve accessibility for Ontarians with disabilities through the development and enforcement of accessibility standards. It provides public education and, tools and materials for accessibility planning and programming. The Directorate works with persons with disabilities, various sectors of the economy and government Ministries.
www.ontario.ca/AccessON

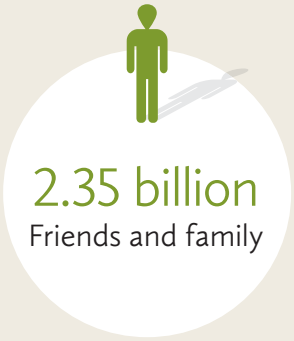
Council of Canadians with Disabilities (CCD)
CCD is a national human rights organization of people with disabilities working for an inclusive and accessible Canada.
www.ccdonline.ca

Return on Disability (Fifth Quadrant Analytics)
Fifth Quadrant Analytics is a ratings company and an equity index provider tracking and recognizing public companies that are outperforming in the disability market.
www.returnondisability.com

By the numbers

WORLDWIDE

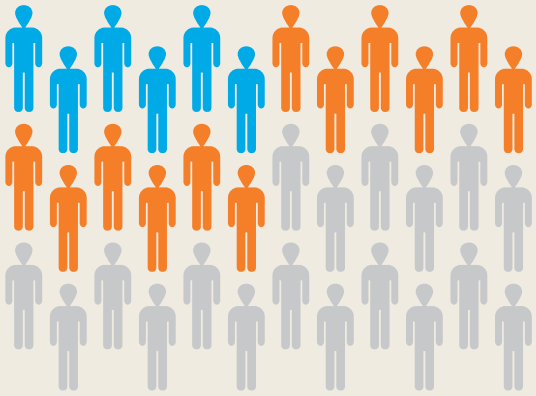




About 1.3 billion people worldwide have a disability—that is equivalent to the population of China. Their friends and family represent another 2.35 billion people.[5]

5. Fifth Quadrant Analytics website, What is the Disability Market? returnondisability.com/disability-market/
6. Fifth Quadrant Analytics, Sustainable Value Creation Through Disability: The Global Economics of Disability Annual Report (April 3, 2013), pg. 4 returnondisability.com/wp-content/uploads/2012/09/The%20Global%20Economics%20of%20Disability%20-%202013%20Annual%20Report.pdf
7. 2012 Canadian Survey on Disability, Statistics Canada http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=3251

CANADA

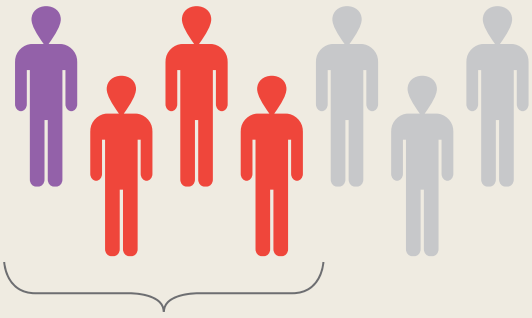


6.2 million
People with disabilities

11.5 million
Friends and family

People with disabilities account for 6.2 million in Canada. Their friends and family account for 11.5 million.[6]

ONTARIO

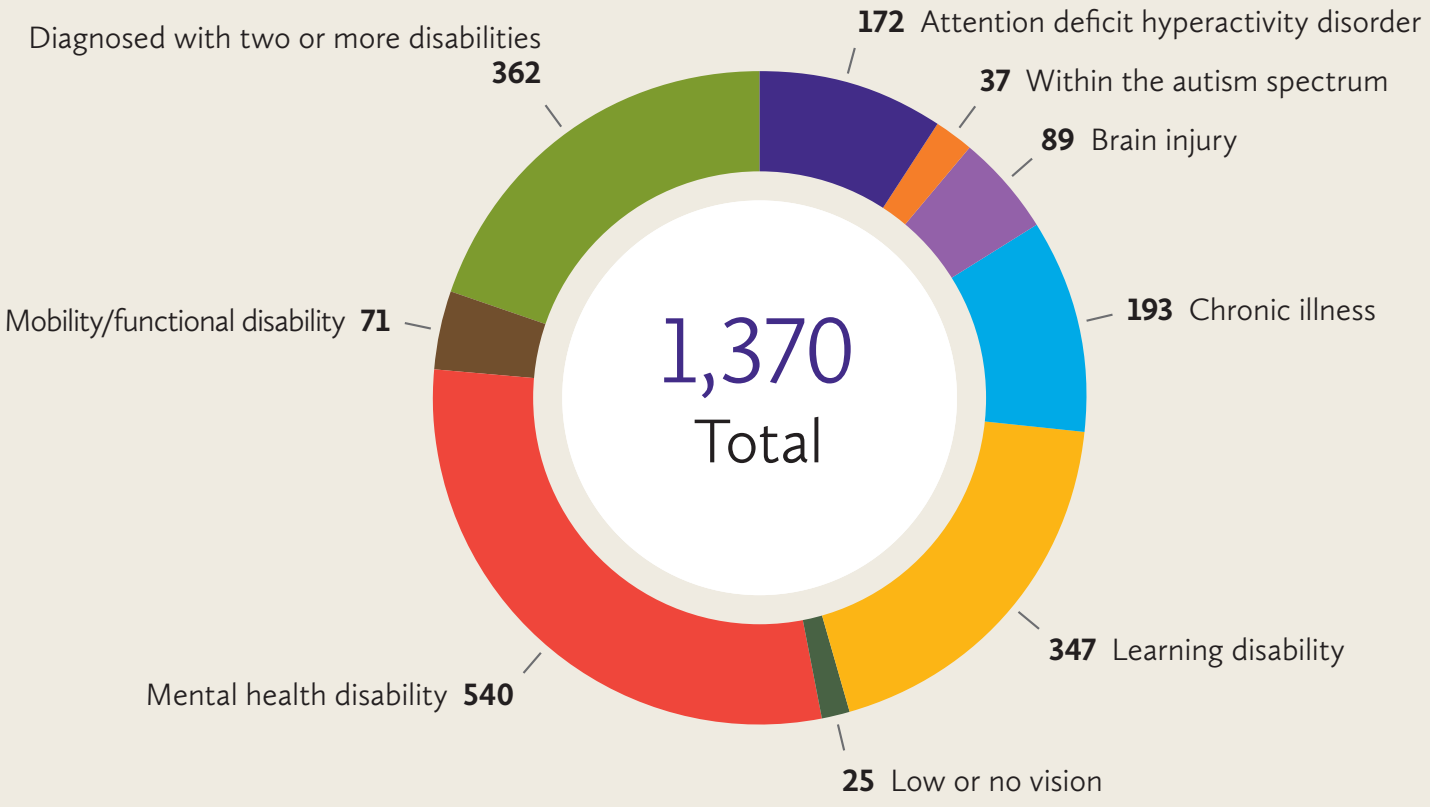


63%
People with disabilities, their friends, family and colleagues

1.65 million
People with disabilities

There are 1.65 million people with disabilities in Ontario according to the Accessibility Directorate of Ontario. That's one in seven people. Predictions are that an aging population will raise that number to one in five by 2036. People with disabilities, their friends, family and colleagues total 63% of Ontario's population.[7]

AT WILFRID LAURIER UNIVERSITY



Laurier's Accessible Learning Centre (ALC) offers services, software and hardware to students with disabilities to support their academic studies and social participation at the university. Above are the number of students with disabilities who registered with the ALC for the 2013/2014 academic year—a 9.5% increase in registration over previous years. Not all students with disabilities register with the ALC, so the population of people with disabilities at Laurier is likely to be even higher than the numbers reported above.

Glossary

Types of disabilities

All of the disabilities listed below can be of varying degrees of severity, permanent or temporary, and present at birth or childhood or caused by injury or disease.

Intellectual
A cognitive impairment. Ones referred to as developmental present at birth or in childhood. Examples of intellectual disabilities include autism and autism spectrum disorder, Down syndrome, fetal alcohol spectrum disorder and Fragile X syndrome. Others can be the result of brain injury or disease, such as Alzheimer's and other forms of dementia.

Learning
A difficulty in acquiring knowledge and skills. Examples of learning disabilities include dyslexia and attention deficit hyperactivity disorder.

Mental health
An impairment of cognitive, emotional or social functioning. Examples include bipolar disorder, anxiety disorders, including obsessive-compulsive disorder (OCD), and schizophrenia.

Mobility/Functional/Physical
These include impairments of gross or fine motor skills, movement of limbs and stamina.

Sensory
Partial or total hearing loss, partial or total vision loss, colour blindness and light blindness.

Why 4:

The AODA

The Accessibility for Ontarians with Disabilities Act (AODA)

Making your organization's online communications accessible is the law in many jurisdictions. In Ontario, the Accessibility for Ontarians with Disabilities Act (AODA) 2005, sets out five accessibility standards, including:

Customer service
The Design of Public Spaces
Employment
Information and communications
Transportation

The last four standards fall within the Integrated Accessibility Standards Regulation (IASR). All of the standards have requirements that are being phased in over time with the goal of achieving an accessible Ontario by 2025. The requirements and related compliance timelines for an organization depend on the sector and size of the organization.

Accessible websites and web content
Within the Information and Communication Standard's section of the IASR are requirements pertaining specifically to websites and web content.

RESOURCES

Accessibility for Ontarians with Disabilities Act (AODA) 2005's Integrated Accessibility Standards Regulations (IASR)

www.e-laws.gov.on.ca/html/regs/english/elaws_regs_110191_e.htm

As of January 1, 2014, any public-sector organization in Ontario with 50 or more employees that creates a new website (where there is a new domain name) or significantly refreshes a website must ensure that it conforms with World Wide Web Consortium Web Content Accessibility Guidelines (WCAG) 2.0 at Level A. A significant refresh refers to a new look and feel, changes to navigability, or the majority of content being updated or changed. By January 1, 2021, any organization with 50 or more employees must ensure that all its web content published after January 1, 2012, conforms with WCAG 2.0 Level AA (excluding live captioning and audio description). **For more about WCAG 2.0 turn to page 28.**

Other types of communication
Under the AODA, the accessibility standard for Information and Communications covers a host of other types of communications as well. These include processes for receiving and responding to public feedback; accessible formats and communications supports; emergency procedures, plans or public safety information; and the provision of accessible educational and training resources and materials.

Under the general section of the IASR, organizations are obliged to inform the public that accessible formats and communications supports are available upon request. Your plans, processes and policies for making your online communications and website accessible should be documented and included in your accessibility commitment statement or accessibility plan.

Training
For large and small public-sector organizations, there is a requirement to train employees on the requirements of the IASR as they pertain to their duties. Organizations can choose to use this as an opportunity to familiarize personnel with the issues of web accessibility, the IASR and WCAG 2.0.

BEST PRACTICES

Though the AODA does not refer to best practices but rather mandates specific accessibility standards, the following suggestions are always good to keep in mind:

- Avoid embedding third-party videos that are not captioned on your site. If it's unavoidable, let users know they can ask you or the originators of the content for text descriptions or captions.
- Build into your content management system (CMS) as much accessibility formatting as you can; for example, make alt text fields mandatory when uploading images and provide tips on creating effective alt texts.
- Offer training for all those within your organization who will be uploading content to your site.
- Make knowledge of WCAG and web accessibility a job requirement when hiring new website personnel.

What 1:

Universal design

RESOURCES

Center for Universal Design at North Carolina State University
The Center for Universal Design (CUD) offers information and technical assistance, and conducts research to evaluate, develop, and promote accessible and universal design in housing, commercial and public facilities, outdoor environments, and products. *www.ncsu.edu/ncsu/design/cud/*

Centre for Excellence in Universal Design
The Centre for Excellence in Universal Design promotes universal design standards through research and education in Ireland. *www.universaldesign.ie*

The Seven Principles of Universal Design

There is much discussion among accessibility experts about universal design, which goes beyond just accommodating people with disabilities. Universal design is a philosophy of inclusion with the goal of designing communication vehicles, products and spaces that can be used successfully by the widest range of people possible—from children to seniors—regardless of their sensory, mental and physical abilities.

Universal design's seven principles were established in 1997 by a group of U.S. architects, designers, engineers and environmental researchers led by the late Ronald L. Mace, founder and program director of the Center for Universal Design at North Carolina State University. The principles are meant to foster education about universal design and to function as general guidelines when designing environments, products and communications. They are useful to keep in mind throughout your web renewal project.

PRINCIPLE 1 – Equitable Use: The design is useful and marketable to people with diverse abilities.

Guidelines:

1a. Provide the same means of use for all users: identical whenever possible; equivalent when not.

1b. Avoid segregating or stigmatizing any users.

1c. Provisions for privacy, security, and safety should be equally available to all users.

1d. Make the design appealing to all users.

PRINCIPLE 2 – Flexibility in Use: The design accommodates a wide range of individual preferences and abilities.

Guidelines:

2a. Provide choice in methods of use.

2b. Accommodate right- or left-handed access and use.

2c. Facilitate the user's accuracy and precision.

2d. Provide adaptability to the user's pace.

PRINCIPLE 3 – Simple and Intuitive Use: Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

Guidelines:

3a. Eliminate unnecessary complexity.

3b. Be consistent with user expectations and intuition.

3c. Accommodate a wide range of literacy and language skills.

3d. Arrange information consistent with its importance.

3e. Provide effective prompting and feedback during and after task completion.

PRINCIPLE 4 – Perceptible Information: The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

Guidelines:

4a. Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.

4b. Provide adequate contrast between essential information and its surroundings.

4c. Maximize "legibility" of essential information.

4d. Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).

4e. Provide compatibility with a variety of techniques or devices used by people with sensory limitations.

PRINCIPLE 5 – Tolerance for Error: The design minimizes hazards and the adverse consequences of accidental or unintended actions.

Guidelines:

5a. Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.

5b. Provide warnings of hazards and errors.

5c. Provide fail safe features.

5d. Discourage unconscious action in tasks that require vigilance.

PRINCIPLE 6 – Low Physical Effort: The design can be used efficiently and comfortably and with a minimum of fatigue.

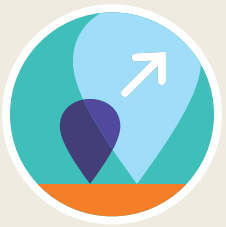
Guidelines:

6a. Allow user to maintain a neutral body position.

6b. Use reasonable operating forces.

6c. Minimize repetitive actions.

6d. Minimize sustained physical effort.



PRINCIPLE 7 – Size and Space for Approach and Use: Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Guidelines:

7a. Provide a clear line of sight to important elements for any seated or standing user.

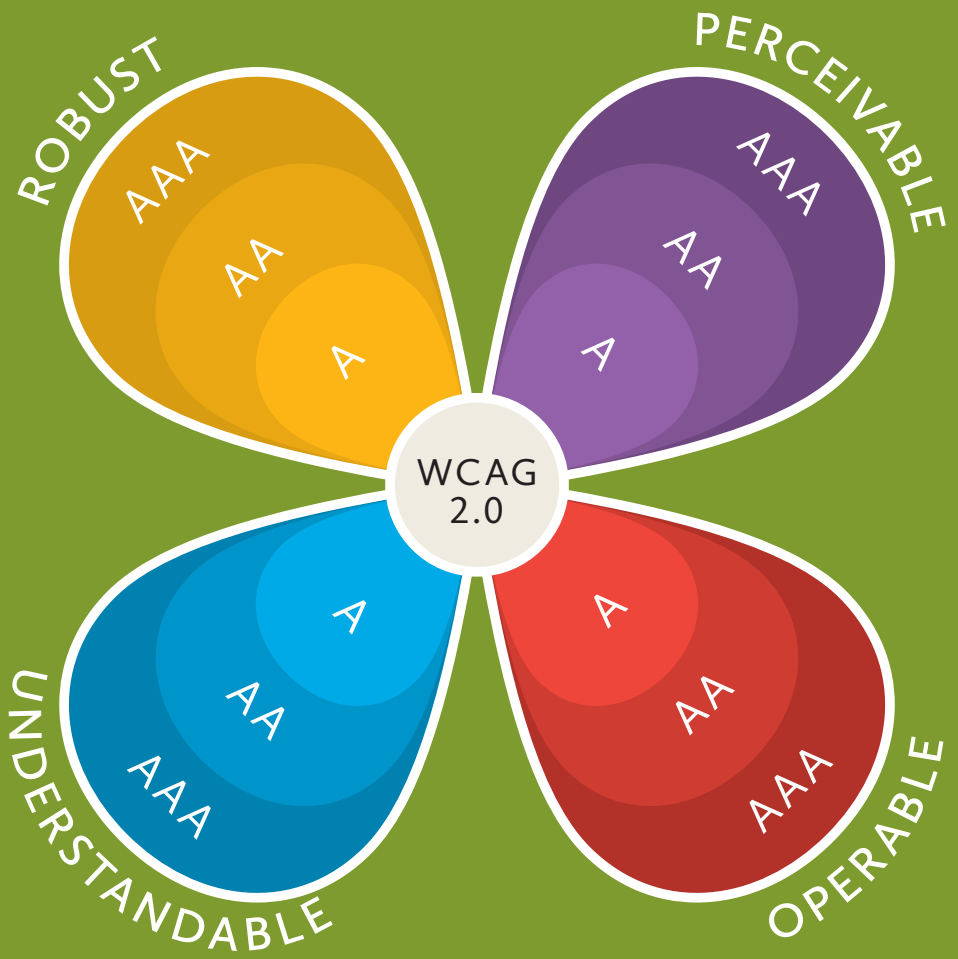
7b. Make reach to all components comfortable for any seated or standing user.

7c. Accommodate variations in hand and grip size.

7d. Provide adequate space for the use of assistive devices or personal assistance.

What 2:

WCAG 2.0



The requirements for website accessibility found within the Accessibility Standard for Information and Communications refer to the World Wide Web Consortium Web Content Accessibility Guidelines (WCAG) 2.0.

Developed in co-operation with experts and organizations worldwide, WCAG 2.0 is a technical standard with guidelines and success criteria organized under four principles: perceivable, operable, understandable and robust. As well, there are three levels of compliance, with criteria associated with each one. The levels from minimum to maximum are A, AA and AAA. For organizations with 50 or more employees, the requirements within the AODA are for initial compliance of Level A but with the requirement of reaching Level AA by 2021. The following is a short summary of pertinent Level A and AA requirements. **For a more complete discussion of WCAG 2.0 requirements, including Level AAA, please visit** *www.w3.org/TR/WCAG20/*.

WCAG principles, guidelines and criteria

PRINCIPLE 1 – Perceivable:
Present information and user interface components in ways all users can perceive.

Guidelines:

1.1 All non-text content on a website must have a text alternative. This includes not only images, but video, motion graphics, logos, CAPTCHAs, navigation menu headings and all other graphic decorations. If icons such as arrows or buttons are used as a control, navigation or user interface prompt, their alt texts must name and describe their function. *Level A.*

1.2 Audio files and audio tracks of videos and motion graphics must be captioned for people with hearing impairments. *Level A.*

1.3 Users should be able to access all content in different and simpler layouts than the default. Websites must be formatted such that screen-reading technology reads the informational sections on a web page in a logical and comprehensible order. *Level A.*

1.4 Use large text, readable fonts and high contrast to help people with limited eyesight. And for people with colour blindness, do not rely solely on the perception of colour to convey information or prompt a response. For those users with limited hearing, audio that plays automatically on a web page must have a pause/stop or a volume control mechanism. *Level A.*

PRINCIPLE 2 – Operable:
All users must be able to operate the interface.

Guidelines:

2.1 All functions must be operable through a keyboard interface. You don't have to do away with the mouse completely; just make sure you build in alternative keyboard commands. *Level A.*

2.2 For time limits set by the content (e.g., information that scrolls across the page) or auto-updating, give enough time to read and use the content. Allow users to turn off the time limit or adjust or extend its length. Give users enough notice that their time is about to run out. *Level A*. If a log-in session expires, allow users to log back in without loss of data. *Level AAA.*

2.3 Don't use flashing graphics, text and screens to avoid causing seizures. *Level A.*

2.4 Provide multiple ways for users to navigate a site, find content and determine where they are on the site. Ways include limiting the number of links per page, making links and search terms visually distinct and providing mechanisms to bypass text blocks or jump to different sections of web pages. *Level A*. Other ways include building in multiple mechanisms for locating specific web pages and making visible a keyboard interface mode indicator. *Level AA.*

PRINCIPLE 3 – Understandable: Make content readable.

Guidelines:

3.1 Limit column widths and avoid large blocks of white text in colour blocks or centred or justified text that creates great ribbons of negative space between letters and words. *Level A*.

3.2 Make web pages appear and operate in predictable ways. *Level A.*

3.3 Help users avoid and correct mistakes; for example, include notifications of input errors. *Level A.*

PRINCIPLE 4 – Robust: Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including current and future assistive technologies. *Level A.*

Glossary

Website jargon

Alt texts
Alternative (alt) text is text attached to a non-text element, such as an image, that conveys the same information as the image.

CAPTCHAs
A CAPTCHA (Completely Automated Public Turing text to tell Computers and Humans Apart) is a security feature/test that requires a user to type the letters or numbers that appear on a distorted screen.

What 3:

Assistive technologies

A website incorporating the principles of universal design works in tandem with the many assistive technologies available today. Specialized software and hardware help people with different disabilities—as well as those without disabilities—to efficiently function and access information in the digital realm. Let's look at some of those technologies and how website design can complement their use.

Software

Software
The following software is used not only by people with hearing, physical and visual impairments, but by many who have learning disabilities, such as dyslexia. Among the general population, assistive technology can be helpful to people who retain information better through auditory rather than visual input, or who prefer to write through dictation. As well, captioning is useful not just for people with a hearing impairment, but for those in noisy environments or for anyone trying to understand audio that is not in their first language.

Braille translation software
Used in conjunction with a Braille embosser/printer, the software translates digital text into Braille text.

Closed and open captioning
For people with a hearing impairment, captioning allows transcribed text of audiovisual content to be displayed on screen. In closed captioning, a user turns on (or opens) the captioning on screen. In open captioning, captioning is the default; it appears on screen automatically when a video is played. Captioning is also helpful for people in noisy environments or for anyone trying to understand audio that is not in their first language.

Screen magnification
Used by people with low vision, the software magnifies the text and visuals on screen. Software brands include Ai Squared's ZoomText and Freedom Scientific's MAGic.

Speech recognition
Used by people with physical and visual impairments, speech recognition software allows people to operate their computers through voice command and to input text through dictation. The software is also helpful for people with learning disabilities or who prefer to write by dictation. Software brands include Nuance's Dragon, which is available on the desktop or laptop or as a mobile app.

Text-to-speech (TTS) software
This software converts written text on screen into audio files. When combined with a scanner, printed text can also be converted to audio files. This is not only helpful for people with a visual impairment but also for those with learning disabilities, such as dyslexia, or anyone who retains information better through auditory rather than visual input. Kurzweil is one example of a company that makes text-to-speech software.

Screen reading

This software reads aloud text on screen via synthesized speech. For people who are deaf-blind, screen readers convert text into Braille characters on Braille devices. There are many open-source and free screen readers available, including NVDA, Thunder, Orca, Fire Vox, WebAnywhere and SAToGo. Apple's VoiceOver is built into its operating system OS X. Commercial brands include Freedom Scientific's JAWS.

Screen Reader Reminders:

- If no alt text is input for an image, screen readers will skip over the image.
- Screen readers read in a linear fashion, one word at a time. When concentrating on a particular block of text, a person with sight will skip over banner ads or navigational bars, but the screen reader will not. The website must be designed and formatted to mitigate such possible confusion.
- Screen readers cannot read colour-based cues. People with sight can tell at a glance which links they have already clicked on because the colour of the text changes; a screen reader cannot. Text-based cues must be incorporated into the website design.
- Screen readers cannot read the hierarchical structure of the text conveyed by font size and typography.
- Headings and subheadings must be tagged correctly to be read by screen readers.
- Many users of screen readers use their keyboards to navigate the web. Designers must ensure that all navigational tools can be controlled by keyboard commands. Avoid objects and text accessed through mouseover events or offer an alternative keyboard command to access them.

Hardware

Alternative input devices
When a physical disability prohibits the use of a keyboard or mouse, there are other input devices available. These include electronic pointers using ultrasound, infrared beams or eye movement tracking; switch access (sip-and-puff, pushing, pulling, pressing, blinking or squeezing); wands or sticks worn on the head, held in the mouth or strapped to the chin; and joysticks operated by hands, feet or chin.

Alternative keyboards and mice
These are used by people with a physical or visual impairment. They include Braille, large-key, large-print and high-contrast boards, as well as mice operated by the users' feet.

Braille devices
For people with a visual impairment who prefer to use Braille or who are deaf-blind, there are a number of different hardware devices. These work in conjunction with other hardware and software.

Refreshable Braille displays
These small hardware devices sit beside keyboards. When used with screen-reading software, they convert text into Braille characters on the display. Small pins within the device are raised or lowered to form Braille characters. The three-dimensional display can be read by touch. The displays are refreshable.

Braille notetakers
These mobile devices use a Braille or QUERTY keyboard for input and voice and/or refreshable Braille displays for output. Files can be transferred to other computer hardware.

Braille embossers/printers
With built-in Braille translation software, these are used to print Braille-embossed documents. Swell paper is used to print out tactile maps and diagrams.

RESOURCES

SCREEN-MAGNIFYING SOFTWARE

ZoomText by AI Squared
www.aisquared.com/zoomtext

MAGic by Freedom Scientific
www.freedomscientific.com/Products/LowVision/MAGic

SCREEN-READING SOFTWARE

Firevox (open source)
www.firevox.clcworld.net

JAWS by Freedom Scientific
www.freedomscientific.com/JAWSHQ/JAWSHeadquarters01

NVDA (open source)
www.nvaccess.org

Orca (open source)
www.wiki.gnome.org/Projects/Orca

SAToGo (open source)
www.satogo.com/en/

Thunder (open source)
www.*screenreader.net/index.php?pageid=11*

WebAnywhere (open source)
www.webanywhere.cs.washington.edu/

SPEECH-RECOGNITION SOFTWARE

Dragon by Nuance
www.nuance.com/dragon/index.htm

TEXT-TO-SPEECH SOFTWARE

Kurzweil
www.kurzweiledu.com

Who 1:

Involving people with disabilities in the process

A web renewal process, regardless of whether accessibility is its only goal or one of several goals, starts with discussions and information gathering. Your web renewal team, on its own or in collaboration with a third-party facilitator, should consult with as many stakeholders as necessary—and may come back to some of these stakeholders throughout the process to test the design and user experience.

Stakeholders include not only IT and communications managers, department heads, content providers and accessibility experts but, most importantly, users. And if you are serious about embracing the principles of accessibility and inclusion, information gathered from and usability tested by people with disabilities are a must.

In fact, many people with disabilities are very good at picking out defects not only in the accessible elements of a site but in its general usability. If someone with a disability, whether using assistive technology or not, can successfully navigate and interact with your site, then there's a better chance that someone without a disability can do so as well. The input of people with disabilities is essential in making sure your site reaches the broadest range of users within your target audience.

Getting to the nuances of user experience

There are other ways of testing the accessibility of your renewed site that do not include direct feedback from users. You can test your site against the WCAG standards, you can use design walk-throughs or do evaluations based on large-picture principles such as those of universal design, and you can use screening techniques. In a screening technique someone without a disability will interact with the site; for instance, while turning off the monitor and turning on screen-reading software. Screening techniques are often used by designers as quick and inexpensive tests throughout the design process to keep them on track. All these testing techniques have their place, and it's important to incorporate them into your continual or final testing. However, nothing will get at the nuances of user experience like talking directly to the users themselves.
For more on testing turn to page 64.

THE LAURIER EXPERIENCE

Laurier's target audience

In addition to making its site accessible, Laurier's goal for Phase 1 of its web renewal was to target prospective undergraduate and graduate students aged 17–30. Therefore, Laurier wanted to hear from people with and without disabilities within that age bracket.

Talk to users early on
The earlier you bring users with disabilities into the discussion, the earlier you can flag potential design and coding issues. If you know going into the design phase that people who use screen-magnifying software don't like blocks of copy with wide margins because it means they have to scroll left and right excessively, you can build a site on which users can set the margins themselves. But if you don't speak to these users until late in the process, you won't necessarily think about building in such flexibility. Designing with accessibility in mind properly from the start is more efficient from both a time and money perspective than to fix online barriers that are a problem after the fact.

Who is your target audience?
Participants in these discussions will vary depending on who you want your renewed website to reach. If your website is targeted to seniors, then you will look for participants, both with and without disabilities, in that older demographic.

People with disabilities are not a homogenous group
One person with a disability cannot speak for everyone who has a disability. Disabilities vary widely—even within such categories as sensory, learning or physical impairments. Someone who is colour-blind faces a different set of barriers when accessing the web than someone who has no vision at all, but both are considered to have visual impairments.

When recruiting participants for information-gathering workshops, it is recommended that you have three to five representatives from each participant category you are targeting. But with disability categories being so broad, you may wish to consider organizing participants into categories in terms of assistive technology used. People who use screen-magnifying software will have a different set of user issues than people who use screen-reading software or people who rely upon closed or open captioning.

Also, remember that user experience depends greatly on how well a person with a disability knows how to use a particular assistive technology. A novice at using a screen reader will have more difficulty than an average or expert user. When choosing your workshop participants, ask about their comfort level when using such software. You may want to have only software users with an average comfort level participate in the discussions or you may want to have people with experience that ranges from novice to expert.

Recruiting participants with disabilities
If your organization has an accessibility office or learning centre (as many colleges and universities do), start your recruiting efforts there. Chances are the office already has a database of potential participants that fit your criteria and who are already invested in the outcome of your project. You must, of course, follow your organization's policy when it comes to sharing private information, so a blanket email to the list is perhaps not the way to recruit. But you may be able to put a call to participate in a newsletter that is scheduled to go out to the list or send individual invitations.

If your organization does not have an accessibility office, then contacting an organization associated with people who have disabilities can be helpful. Often, if people know their input will result in better website accessibility for all, they and the organizations that represent them are more than happy to help.

Putting a call for participation notice up on your existing site or in a general newsletter is also a good recruitment method.

Making sure all participants can participate
The logistics of your workshops for stakeholders with disabilities will depend greatly on your participants' accommodation needs. Once you've determined what those needs are, you can make decisions as to the structure and location of the workshops.

If you are planning to bring all your workshop participants together in one location for a face-to-face discussion, you must make sure that the location is physically accessible for people with disabilities. If you are using multimedia aids to facilitate the discussion, use the appropriate assistive technology in your presentation, whether it be open captioning for audio tracks or screen-reading or screen-magnifying software. You may also have to pay for the services of a sign-language interpreter or a personal assistant to a participant with a physical disability.

If these discussions or usability testing sessions will be done primarily online, it may be more feasible to conduct them one on one at each participant's home base, where they can use their own computers, assistive technology and software.

RESOURCES

Check out these two guides published by the Ontario Municipal Social Services Association for information about how to engage in more accessible consultation processes:

Guide to Conducting Accessible Meetings
www.omssa.com/accessible-community-engagement/omssa-guides/view-the-guides/guide-to-conducting-accessible-meetings

Guide to Accessible Public Engagement
www.omssa.com/accessible-community-engagement/omssa-guides/view-the-guides/guide-to-accessible-public-engagement

Who 2:

Auditing and finding an auditor

Assessing your current website is a necessary first step in a web renewal process. A website audit can be a quick, top-level assessment done in-house or an in-depth report done by an outside expert. It can be comprehensive or focused on a specific aspect of the website, not the least of which is accessibility. The goal of an audit is to identify gaps and recommended improvements.

Depending on the scope of your web renewal project, you may wish to conduct one or more of the following audits:

Content audit
No matter the scope of your project, you will want to review the content of your current site. Content, language, style and structure have an effect on search engine optimization and accessibility.

The kind of content you want on your renewed site and where you put it on your site will depend on your goals. If you want to recruit new undergraduate students, you will write copy and headings on the home page that attract high school seniors and parents researching colleges and universities. There are many aspects to consider:

- What message or public image does the information in the copy, as well as its style, tone and structure, convey to your audience? What is your current content failing to say?
- Is there too much content or are there too many web pages? Is the information inaccurate, outdated or duplicated in several locations on the site? What content can you eliminate or streamline?
- Are the language and vocabulary suitable for your target audience? Is the grammar impeccable?
- What pages and content get more or less views and why?
- What online forms are easy to use? Are the instructions understandable?
- Can you get to important information quickly from any page? What is the important information?

Accessibility audit
This is an evaluation of your website according to accessibility guidelines and standards, in particular WCAG 2.0, the standard referred to in the AODA, as well as many other accessibility laws across the globe. A web accessibility audit report usually includes overall and detailed conformance ratings of the website with WCAG 2.0 and each of its standards and a prioritized list of problems and solutions.

An accessibility audit overlaps with a content audit in the areas of content structure and language. Are the blocks of copy broken up with appropriate headings and subheadings to allow for efficient scanning by all users (whether or not they are using assistive technology), as well as search engines?

Is the language simple and straightforward enough to be understood by people with an intellectual or learning disability or by someone whose first language is not that of the website?

Search Engine Optimization (SEO) audit
An SEO audit will look at a myriad of issues:

- Use of keywords in the copy;
- Website architecture, user experience and navigation;
- Indexing;
- The quality, placement and quantity of internal and external links;
- Whether your site is responsively designed to perform well on mobile devices; and
- Technical performance.

SEO, content and user interface best practices often overlap with those of accessible design. For instance, making sure all images and multimedia have alt texts is good both for people with disabilities and for search engines. Eliminating content that is lengthy and dense allows for quicker loading of pages and less frustration for all users. More streamlined navigation makes everyone happy, as does less clutter on the home page.

THE LAURIER EXPERIENCE

SEO top of mind for web renewal

Like many large public-sector sites, Laurier's old site, which had had no significant overhauls since 2004, had content that was originally written for print. One of Laurier's main goals for its web renewal was to rewrite that copy with clarity and search engine optimization in mind.

Lead generation and conversion audit
For organizations with particular quantitative goals in mind (e.g., recruiting students or fundraising), this audit will look at how well your website is generating leads and converting those leads into growth in funds raised or students enrolled. Often these factors are determined by how good the site content is and how well it performs in SEO and accessibility.

Competition audit
This is an audit of other organizations' sites in your sector. What do they do well, what do they do poorly and what can your organization learn from them?

Resource audit
This audit will tackle the issue of staffing. Do you have enough internal staff to successfully complete your web renewal process and to maintain the new site going forward?

Finding an auditor
Though there are a number of online or software tools to allow you to audit your own site, most large public-sector organizations will opt to hire an outside auditor, particularly if they do not have a dedicated, full-time web team on staff. Outside auditing services vary considerably. Some consultants specialize in SEO or accessibility; some will offer a comprehensive service that includes an overall audit, plus stakeholder workshop facilitation. The workshops can cover anything and everything—from figuring out your branding, goals and target audience to website usability. You can choose what fits your needs, time frame and budget, but make accessibility a component of whichever type of audit you choose.

RESOURCES

List of online Web Accessibility Evaluation Tools:

www.w3.org/WAI/ER/tools/complete

Glossary

Website jargon

Keywords
In search engine optimization, keywords mean a particular set of words or phrases that describe the essential content of a web page or site and that help search engines match a page to a search query.

Responsive design
A web design that allows for optimal viewing and easy reading and navigation regardless of device or screen size.

Web architecture
How the website content is organized.

How 1:

Time and project management

Even with good project management, large web renewal projects occasionally can run over budget and take longer than anticipated. Poor management exacerbates these issues. But you can minimize the fallout from unforeseen problems by putting a sound managerial structure in place at the start of your web renewal project.

Who takes the lead?
Once your organization has decided to launch a new website or re-engineer your existing website so that it is accessible, you will need to decide who leads the project. Whatever the scope of your project, start with putting together a project team and perhaps a web steering committee.

Steering committee versus project team
Steering committees are different from web project teams, though, of course, individual members are often on both. Steering committees give advice on and approve decisions about direction, goals, implementation, time frames, milestones and budget. Steering committee members are drawn from the larger stakeholder community and often include representatives from administration. Whenever possible, include an accessibility expert on the steering committee and ensure that all steering committee members understand how people with disabilities use the web and are familiar with web accessibility requirements. Project team members are usually drawn from the IT and communications departments and are tasked with managing and implementing the project.

Responsibilities, decision-making authority and duties of the steering committee and project team, as well as each of its members, must be delineated to ensure a smooth decision-making process.

The project charter
A major first step in any web renewal project is to come up with a project charter. This document is usually written by the project manager. The writing of it can be started before—but is usually completed after—the needs assessment is done. Results of the needs assessment, as well as website audits and stakeholder consultations, usually dictate some of the charter's content.

THE LAURIER EXPERIENCE

Phase 1 of Laurier's web renewal project was defined as:

- The development of an externally focused website geared toward prospective undergraduate and graduate students aged 17–30 yet that clearly works for all key visitor groups.

The website would also include:

- A clear, intuitive and persistent information architecture (IA).
- A marketing-focused home page and landing pages that tell powerful stories and convey the essence of the institution: inspiring lives of leadership and purpose.
- A reflection of the multi-campus nature of the university and an understanding that "we are all one Laurier" in multiple locations.
- A fresh, contemporary, responsive and accessible design that follows visual identity, brand and accessibility standards and guidelines.
- Integration of social media.
- Optimization for mobile devices.

A project charter delineates the scope and objectives of the project, identifies its main stakeholders, delineates the roles and responsibilities of steering committee members and project team members and defines the authority of the project manager. This document is where you will want to make clear your organization's commitment to accessibility and prioritize your goal of having a website that is thoroughly accessible to all.

Marshalling resources

Part of the auditing and needs assessment process will be an analysis of what resources are needed internally and externally, not only for the web renewal process but to maintain the site after its launch. This may include hiring a permanent dedicated web staff, particularly if you wish to centralize and control content creation, editing, SEO optimization and formatting. You may also wish to make sure any new people you hire have knowledge and expertise in creating and formatting content following the principles of universal design and the WCAG 2.0 standards.

Managing content creation and creators

A content audit will include recommendations about what copy from the old site to keep, what to rewrite and what to remove altogether. Usually, large organizations have many web pages filled with copy written originally for print that hasn't changed in many years. If such copy is important to keep, it is advisable to rewrite it from scratch. Such old copy usually will fall short of the accessibility and SEO standards in language used, subheadings and paragraph structure. Furthermore, you will want all your copy to have a uniform message, style and quality. To achieve that consistency, complete rewrites are often necessary.

The question then becomes who will rewrite the copy and ensure that it adheres to the message, style and quality needed. Another question to tackle is who will update the content going forward after the site launches.

THE LAURIER EXPERIENCE

Content creation and resource management

- Laurier started the process with no full-time dedicated website staff. After an audit and consultation process, Laurier decided to hire six employees to work on the website, both before and after the launch. The employees were divided between Laurier's IT and Communications, Public Affairs & Marketing departments.
- After a content audit of Laurier's old site, it was obvious that all of the content would have to be rewritten. Over a three-and-a-half-month summer period, Laurier's web content specialist and the Communications & Public Affairs writing team worked collaboratively with faculties and departments to write all new copy for the new website to ensure the style, tone and quality adhered to the web style guide.

THE LAURIER EXPERIENCE

Project structure and leadership

Laurier, who had no dedicated website staff at the beginning of the project, started by putting together both a web project team and a steering committee. It was Laurier's project team that directed and guided the hiring of outside consultants and additional staff, the marshalling of internal resources, the creation of the project charter and schedule, and the budget process. The team also wrote the website governance document, which outlines how the website will be tested, governed and maintained after its launch.

Laurier's web steering committee acted as an advisory board for the project team. The committee provided guidance. It reviewed and approved scope, milestones, the project charter and the website governance document. Four core members of the project team were also members of the steering committee.

The 14 members of the steering committee included representatives from both of Laurier's campuses (Brantford and Waterloo), as well as key faculties and departments, such as Information and Communication Technologies (ICT); Finance; Student Services; Recruitment and Admissions; Procurement; and Communications, Public Affairs & Marketing (CPAM). Laurier's employment equity and AODA officer, and other accessibility experts on campus, were consulted when necessary to talk about accessibility. At the initial stages of the project the committee met biweekly, but as the work progressed that schedule increased to weekly.

Having representatives from various stakeholder groups on your steering committee is essential, says Helen Exley, Laurier's associate director, marketing and creative services. "You need buy-in from all areas and you need all those different perspectives in the room."

Helen also believes that having a dedicated group on task that meets regularly helps ensure the project keeps to its scope and deadlines.

There are many possibilities. You could hire one or two full-time content producers/editors to rewrite all the copy during the website renewal and to write regular updates after the launch. However, it is not always feasible in large organizations to centralize content creation.

If you will be relying on department administrative assistants or heads to update their respective sections of the site before or after the launch, then you must either train all content creators to adhere to your accessibility, style, quality and formatting standards or channel all new copy through gatekeepers (i.e., one or two editors) to ensure accessibility and uniformity.

You could also combine the two approaches. Use the gatekeeper approach during the web renewal process, but train individuals in different departments to update their web pages once the site has launched.

Typical timelines
Typical timelines for large-site web renewal projects can be anywhere from two to five years. If you are implementing the renewal in phases, figure on one to two years per phase. Here are a few typical timelines (some of these tasks can be done simultaneously):

Audits and stakeholder consultations: one to three months
Design: two to three months
User interface development and programming: two to three months
Content and website strategy planning: one to four months
Content migration and creation: three to four months
Implementation and assembly: two to four months
Beta testing and review: two to six weeks.

SUGGESTED APPROACHES

- Take the time to get the site structure and navigation right. Those decisions will dictate what type and how much content you will need for the new site.
- Figuring out the navigation and migrating or creating new content are the most time-consuming tasks. Be prepared for this.

Glossary

Roles of typical web team staffers

Project manager
Oversees the web renewal process. After the launch, he or she may become the web manager going forward or may hand over management of the site to the web manager.

Web manager
Oversees the content creation, content management and strategic use of the public-facing website.

Web content editor/producer/writer
One or more people in charge of gathering, writing, editing and uploading content (including images and audiovisual material).

User experience (UX) designer/graphic designer
Planning, design and implementation of the structure, look, feel, navigation and web page templates.

Web developer
Designs, develops, tests and implements new web applications.

IT support
Overall management of and tech support for the website's software and hardware components.

THE LAURIER EXPERIENCE

Laurier's timelines

Phase 1 of Laurier's web renewal project geared toward prospective students had the following timelines:

- Stakeholder consultations to presentation of the final web strategy document: three months
- Content management sytem selection from assessment to purchase: five months
- Design and implementation to launch: eight months.

How 2:

Needs assessment

If you don't know your organization's mandate, goals or value proposition or you believe they have shifted and are now undefined, then, of course, you cannot judge your website against them. Business, branding and marketing professionals can help you determine these attributes.

Once there is a consensus on mandate, goals and value proposition, you can start to evaluate your site. There are many ways of doing so. Most of us will start with casual, unofficial internal discussions, polls and anecdotal feedback. These give you a general sense of what people think of your site, but they are just a starting point. You need much more information than that in order to come up with a budget and work schedule—and what requirements to list in a request for proposals.

Who will do the needs assessment?
Most organizations will have some expertise in-house—a person in the IT department who can use Google Analytics or a communications manager who can survey the content. Having an accessibility expert, or experts, on staff is an obvious resource. And there are also some online audit tools for quick tests and evaluations. But most often the expertise needed to conduct thorough audits and organize and facilitate stakeholder consultations is found outside the organization. **For more information on auditing and auditors turn to page 42.**

Talking to stakeholders
Once you have your project team, charter and timelines in place, you can then start gathering information from your stakeholders. This can be done in many ways, depending on your budget and project scope.

The first step is to identify which and how many stakeholders you wish to hear from and how long you wish your consultation period to be. Often the answers to these questions will dictate the mix of your consultation methods.

Do be sure to include a mix of feedback methods during your consultation phase. Not everyone who wishes to participate (or whom you wish to hear from) will be able to attend a workshop. Make sure there are other feedback options available to them. Posting an online questionnaire on your home page and advertising the link to an email list are helpful.

If your budget allows, there is nothing like face-to-face workshops to generate diverse opinions and suggestions, as well as enthusiasm, buzz and buy-in for your web renewal project.

But if the stakeholders you wish to hear from are spread across the country and you don't have the budget to hold dozens of face-to-face workshops in different cities, then you'll rely on emailed feedback, as well as phone and online surveys to make sure you hear from those who could not attend the workshops personally.

Predicting website growth
When assessing your needs, think about predicting the future growth of your renewed website in terms of traffic, content, functionality and staffing requirements.

Most large public-sector organizations need multi-purpose sites. Laurier decided that Phase 1 of its web renewal project would concentrate on an outward-facing site targeted to prospective students. Phase 2 will be an intranet site for existing students, faculty and staff. If your web renewal plan calls for many phases, find out what you need to put in place in terms of infrastructure, website capacity and staffing during Phase 1 in order to ensure Phase 2 happens.

Predicting website traffic will be part of a larger-picture SEO and content audit. Prediction strategies include benchmarking your traffic over the last few years, evaluating your top referral channels, deciding if you will spend on advertising to drive people to your site, how often you will post fresh content, and analyzing the user experience of your site.

Strategy reports
Your final strategy report, based on the results of your consultation phase, is the blueprint for your project. The information and recommendations contained in it will keep you on track as you write your project charter, as well as plan, schedule and budget for the design and implementation stages.

BEST PRACTICES

- Hire an outside expert to guide you through the auditing and stakeholder consultation process.
- It is important to invest time and resources in the research/consultation phase. The more thorough your needs assessment, the more detailed a plan you will come up with. And a detailed plan will minimize money and time wasted during the design and implementation stages.
- If your budget cannot cover assistive technology or sign-language interpreters for face-to-face workshops, make sure people with disabilities participate in the consultation process by other means.
- Divide stakeholders into logical subgroups during consultations and limit the size of these groups (to about 40 participants) to ensure in depth dialogue and diverse opinions.
- Advertise workshops widely, accessibly, and using multiple platforms.
- If you want specific individuals to participate in consultations send them personalized invitations, or pick up the phone and connect with them.

THE LAURIER EXPERIENCE

The strategy phase

Laurier wanted to gather as much and as diverse information as possible from a wide variety of stakeholders, including people with disabilities. To that end, Laurier hired web strategy and design firm mStoner for the strategy phase of the website renewal project. Says Helen Exley, Laurier's associate director, marketing and creative services, "The neutrality and expertise you get from a third party are important."

The mStoner team facilitated one-to-two-hour meetings over a three-day period. Sessions were held with senior management, the web steering committee, representatives from each faculty and administrative department, and staff from Laurier's Accessible Learning Centre and the Diversity and Equity office, as well as graduate and undergraduate students.

After that, they held sessions open to everyone in the Laurier community, including other staffers, students and faculty members. Individual sessions had about 10 participants. The sessions were facilitated and feedback recorded by mStoner staff. In these sessions, discussions were directed and prompted by specific questions, tailored to specific sessions and participants.

To attract people to attend the sessions, calls to participate were inserted into internal newsletters and student publications at both campuses and posted online. Department heads were asked to recruit participants from within their department. And to fill in gaps in representation, specific individuals were invited to participate. For instance, because Laurier knew it wanted to use its website more effectively to recruit new students, first-year undergraduate students were specifically invited to participate because they would remember their experience of using the old site to research Laurier when they were deciding which post-secondary school to go to.

For those who could not attend the sessions in person, an online forum about web renewal was set up and emailed comments were encouraged. This forum remained open throughout the research/consultation stage, and a great deal of additional feedback from website users was collected online.

Assessing your web renewal needs

This list of what to consider when assessing your web renewal needs focuses primarily on accessibility. Think of it as a starting point and add to it as you see fit.

Research/Consultation/Testing
Testing is usually done at the implementation stage and after the beta launch of the site, but here it is grouped with the upfront consultation phase because the logistics that need to be considered for both user-based testing and face-to-face stakeholder workshops are similar.

- **Audit(s):**

☐ Accessibility

☐ Content

☐ Resource

☐ SEO (including user experience, technical performance and mobile strategy)

- **Testing:**

☐ Accessibility (conformance with WCAG 2.0 standards)

☐ Other conformance/quality assurance (QA)

☐ Usability on different types of assistive technologies

- **Face-to-face sessions:**[8]

☐ Facilitator(s) with knowledge of accessibility and accessible customer service

☐ Budget that covers cost of assistive technology, and the hiring of a sign-language interpreter and/or personal assistant(s)

☐ Participants, including people with a variety of different disabilities who use different assistive technology

☐ Accessible session locations

☐ Audiovisual tools, including assistive technology

☐ Sign-language interpreter and/or personal assistant(s) if required

- **Calls for participation and feedback:**

☐ Communications formatted for accessibility and written in clear language

☐ Printed materials that follow the CNIB (formerly known as the Canadian National Institute for the Blind) clear print guidelines[9]

8. Guide to Conducting Accessible Meetings (Ontario Municipal Social Services Association, 2013) omssa.com/accessible-community-engagement/omssa-guides/view-the-guides/guide-to-conducting-accessible-meetings

9. Clear Print Design Standard (Canadian National Institute For The Blind, 2006) www.cnib.ca/en/services/resources/clearprint/Pages/default.aspx

- **Strategy/Design/Implementation:**

- ☐ In scope and out of scope document, and timelines
- ☐ Budget, including costs associated with captioning of audiovisual content, as well as producing copy adhering to accessibility standards
- ☐ Project manager/project team, including staff with knowledge of accessibility issues
- ☐ Steering committee, including AODA/ accessibility expert
- ☐ Project charter that prioritizes accessibility
- ☐ Money allocated for new staffing requirements
- ☐ New URL/domain names
- ☐ Web services firm with knowledge of and experience with accessible design
- ☐ Content management system (CMS) that works with accessibility standards
- ☐ Micro-site, mobile and SEO strategy
- ☐ Target audience that includes people with disabilities

- **Content strategy:**

- ☐ Content plan that details what goes on the home page and other web pages
- ☐ Process to review how the existing content meets WCAG 2.0 standards
- ☐ Timelines for content review/creation/ migration/uploading
- ☐ Procedures for updating existing or creating new copy
- ☐ Content producers/editors/creators with knowledge of and experience with WCAG 2.0 standards
- ☐ Content producers/editors/creators trained to follow accessibility standards and agreed-upon style and messaging
- ☐ Policy and guidelines for alt texts, text descriptions (for diagrams and charts) and captioning of audio material
- ☐ Process to ensure compliance with agreed-upon content style and accessibility standards

- **New content:**

- ☐ Budget that includes captioning
- ☐ Text written in clear, accessible language
- ☐ Visuals and audiovisuals, including captioning

- **Design:**

- ☐ Alternative keyboard commands for all navigational components
- ☐ Mandatory fields for alt text input that are built into the CMS
- ☐ Flexibility in terms of font size, background contrast and margin widths so that users with and without disabilities can adjust as they wish

- **After the launch:**

- ☐ Beta launch and final launch dates
- ☐ Plans for promoting launch to target audience and community, including people with disabilities, using multiple means of communications
- ☐ Web governance document, including process for creating/updating and ensuring standards of accessibility, messaging and style conformance of content going forward
- ☐ Website staff with knowledge of accessibility standards to maintain and update site going forward

Glossary

Marketing terms

Mandate
An organization's purpose or mission statement.

Goals
Actions and results planned to fulfill that mandate.

Target audience
The community it serves (an organization can have more than one).

Value proposition
What an organization promises to deliver to its target audience. It is also what sets an organization apart from others in its field.

Web analytic jargon

Benchmarking your traffic
Comparing your site's traffic to the average of websites in your field of endeavour or geographic area.

Top referral channels
The top ways users find your site. Through search engine queries? If so, which search engine(s)? Through external links? If so, which ones?

How 3:

Budgeting

When thinking about making your site accessible, you may be tempted to say adapting an existing site is more cost-effective than starting from scratch. That is not necessarily so. Accessibility is more than just inputting alt texts for images. To make a site truly accessible, content structure, style and language must be adapted to adhere to the principles of universal design, and fundamental changes to presentation and navigation must be made. Prying apart your existing site, fixing the problems and putting it back together may cost just as much—or more—as developing a new site. In Laurier's case, not only was the old site not accessible, it did not have the technological capability to be accessible. So the decision was made to start from scratch.

Sharing costs over many departments
Considering how quickly website use and technology changes, chances are that you need to update other aspects of your website besides its accessibility: you may need a better CMS or better SEO; you may need to reconfigure your site for mobile screens; or perhaps your communications and public relations department wants to update content and drive more people to the site.

In building a business case for including accessible design in your overall renewal, keep in mind that:

- Allowing more people access to your website will drive site traffic up and ultimately result in more student enrollment, funds raised or community members served.
- Best-practice accessible design elements and content strategy are also great for SEO and mobile design.

Cost savings of accessible web design

There are other cost savings to be found when developing an accessible website.

- Simplifying the language and presentation and paring down the length of your content, in adherence to the universal design principle of simple and intuitive use, may also lessen the amount of server capacity needed for your site, resulting in a cost savings.
- Currently, under the AODA, large public-sector organizations are obligated, when asked, to work with individuals to accommodate their needs for accessible communications. This may result in the organization producing and distributing communication materials in an alternative format, such as large print, Braille or audio CDs. Not everyone with a disability has access to the Internet, so organizations will always need to produce material in such alternative formats. However, if most of the organization's content can be accessed by people with disabilities online, demand for alternative format material will most likely decrease, as will the expense to the organization to produce and distribute these alternative materials.

Line items for your budget(s)

When preparing your budget, remember to include these line items associated with accessibility:

- Accessibility audit/testing.
- The rental or purchase of assistive technology, the hiring of a sign-language interpreter/personal assistant and the rental of an event location with accessible accommodations for stakeholder consultations and testing.
- Captioning of audio and audiovisual content on an ongoing basis.

BEST PRACTICES

- Develop two main budgets (and two RFPs): one for the research/consultation stage and one for the strategy/design and implementation stages. Write the second budget (and RFP) based on plans and recommendations outlined in the strategy report resulting from the research/consultation process. It will help stop "scope creep," whereby the size of the project, and therefore the budget and the timing, keep expanding.
- Write a total cost of ownership (TOC) document, which outlines the upfront and post-launch (ongoing maintenance) costs.

How 4:

Drafting a Request for Proposals (RFPs)

If you follow the best-practice advice about dividing your web renewal project into two budgets, you will need to develop the criteria for and write two requests for proposals (RFPs)—one to hire an outside consultant to handle the research/consultation phase for the web strategy and one to handle the design and implementation phase. The criteria for the second RFP will be based on the strategy report recommendations that come out of the research/consultation phase.

Furthermore, any outside web services agency you hire, be it for the research/consultation phase or the design and implementation stages, should be conversant with the philosophy and technical aspects of accessible design and familiar with assistive technologies and know the legal requirements of pertinent accessibility laws.

In your RFP for the research/consultation stage:

Be sure to state that:

- You will want a WCAG 2.0 Level AA accessibility audit (or a comprehensive audit that includes accessibility) of your existing site.
- You are looking to include people with disabilities in the stakeholder consultation sessions.

Be sure to ask:

- What experience they have doing accessibility audits and stakeholder consultation sessions with people with disabilities. Ask them to explain how their consultation process works and how they accommodate participants with disabilities.
- Ask for at least three case studies of similar work they have done and/or three references.

In your RFP for the strategy, design and implementation stages:

Be sure to state that:

- You are looking for a web developer/designer conversant with the AODA's IASR requirements who can develop a website and content that complies with WCAG 2.0 Levels A and AA.

Be sure to ask for:

- Their experience in both conformance testing and user-based testing for accessibility.
- Three references.
- Three case studies of completed accessible website projects. Ask them to list project details, including client organization, accessibility benchmarks used and the URL of the site.

Be sure to test the accessibility of the three case study websites by:

- Using an online website accessibility checker.
- Asking community members with disabilities who use a variety of assistive technology to assess the accessibility of the sites.
- Asking an internal expert if available or hiring an accessibility expert to review the sites.

How 5:

Testing for accessibility

Website designers and developers usually test their work throughout the design and implementation stages. However, the main bulk of the testing comes after the launch of the beta site, which usually happens from two to six weeks prior to the final launch.

During those few weeks, the site is put through a number of tests, which generally fall into two categories: conformance or quality assurance (QA) and user-based or usability.

Conformance or QA testing: These test the website's conformance to specific standards.

When testing for accessibility, the standard is usually WCAG 2.0 Level A or AA. There are a number of online accessibility checking tools that can be helpful here. Input your URL, and the automatic checker will go through your site and produce a list of technical problems, such as missing alt texts and alt tags. However, it cannot tell you whether the alt texts you do have on your site are helpful to users. So this type of testing alone is not sufficient to judge the accessibility of a website.

General QA testing is done regularly on about-to-be-launched websites. Most often the standards are developed in collaboration with the organization and its web services consultant. These agreed-upon standards cover a variety of areas, including (but not limited to) spelling and grammar; headings and subheadings and navigation labels; SEO keywords; image quality and colour accuracy; download time; text layout; compatibility with different browsers; and compatibility with different assistive technologies.

User-based or usability testing

Conformance tests will tell you only so much. For a more thorough understanding and identification of glitches and problems, user-based testing is a must. In these tests, representative users are brought in to interact with the beta site. Testers are asked to perform different but typical tasks on the site and are observed and asked questions about the experience. How testers perform—or fail to perform—these tasks will tell you much about whether or not you've nailed the navigation, functionality, design and wording on your site. If you have a target audience and specific function for your site, test with users in the appropriate demographic and give them tasks to perform on your site that are pertinent to the site's main function. These tasks can include finding a specific web page, document, section of text or contact information, or filling out an online form.

User-based testing for accessibility is vital and will often point out where specific barriers in terms of design, wording, layout and navigation are. Be sure to test with users of as many different assistive technologies as you can. Just because your beta site works well with a screen reader does not mean it works well with screen-magnifying or text-to-speech software. And remember to factor in whether they are novices or experts at using their assistive technologies. Do not forget to include testers who have different disabilities. Testers with learning disabilities may be able to highlight whether or not you have used appropriate language or have cluttered up your web pages too much.

Where to conduct testing

If you have access to a computer lab that has assistive technologies installed, then that is the place to hold your usability testing.

However, if you do not have a full complement of assistive technologies installed at your facilities, then you might have to allow your testers to conduct the tests on their computer systems at home.

THE LAURIER EXPERIENCE

Beta site testing

Laurier used both conformance and user-based tests on its website. User-based accessibility tests were held at Laurier's Accessible Learning Centre, which has a full complement of assistive technologies installed. The tests were administered jointly by the web renewal project team's user experience designer and by staffers from the Accessible Learning Centre (ALC) and outside website developer, mStoner. mStoner also conducted their own accessibility conformance testing.

Avoid these common errors

As the work progresses, keep each member of the team focused on accessibility to avoid these common errors when designing accessible websites.

Alt text errors
By far the most common error is missing alt texts for non-text content. Non-text content does not mean just images, but also video, motion graphics, logos and logo taglines, graphical navigation and interactive buttons and icons, diagrams, charts, applets and image map hot spots.

It's important to remember poorly written alt texts can be just as much a barrier to accessibility as no alt texts at all. If the alt texts are too long and convoluted, it makes the web page that much harder to understand. Alt texts should be concise and accurate.

When writing alt texts, take into account the purpose of the non-text element. Is it there for decoration, navigation or content? Its purpose and its location on the page will inform what you write as the alt text.

Avoid using non-text elements when you can
That's not to say you can't have any images on your website, simply consider whether or not text-based content needs to be conveyed as an image.

In the early days of the web, there were few choices when it came to web fonts. Designers who wanted a particular look for a site's navigational menu bar would often finesse the typography using design software, take a JPEG of it and upload it to the site as an image (and embed the menu labels with the navigational links). Today, however, there are a vast array of web fonts available and there is no need to use non-text elements in your navigational bar. Each of the menu labels can be text—thus avoiding the necessity of alt texts altogether.

Keep in mind the way a screen reader reads
Screen readers read left to right, top to bottom. Keeping this in mind when designing a website will naturally lead to a logical hierarchical structure. What do users need to know first when they land on a home page? Most often they want to know they have landed on the website they were looking for, so the logo (with alt text identifying the organization's name) and tag line should be top left. What do they need to know next? Should they encounter their navigational options next or a quick introductory blurb? Keeping in mind that a screen reader reads left to right, top to bottom, decide on a structure that guides users through your website and format the content accordingly.

Also remember, every time content is refreshed on the web page, the screen reader will stop reading wherever it is and go back up to the top left to

start reading the entire page again. So if you have content that is refreshed every few minutes, the screen reader will never get to the bottom of the page. This can be annoying to the user. Consider building in an option for the user to pause the refresh or set it to a longer interval.

Remember the rules of good writing
Fortunately, good writing for the web is beneficial to all users, as well as for search engine optimization. Use the principles of plain language. Avoid long, convoluted sentences. Keep the paragraphs short and concise. Put logical and appropriate headings and subheadings throughout the text, embedded with links, so that it is easy and quick for users to access the information they need. And for long documents, list these headings and subheadings (embedded with links) at the beginning as a table of contents.

Legibility
People with low vision need designers to build in flexibility, legibility and consistency with their colour cues. Do not put text on coloured backgrounds or on images. Build in flexibility when it comes to font size, foreground/background contrast, leading, kerning and margin widths. Make sure that you are consistent throughout your site with colour cues—for instance, type in green always means a hot link.

Identify, identify, identify
A screen reader needs to be able to identify everything—every little element needs an alt text, a label, a title. Examples include row and column headers for data and tables, titles for browser or website frames, and each hot link that pops up when you scroll over an image.

Glossary

Typography terms

Leading
The space between lines of text.

Kerning
The space between individual letters.

Web terms

Applets
A small application that performs a specific task on a site, it is often a plug in.

Frames
Part of a web page or browser window with content independent of its container.

Hot Link
The use of a linked object, often an image, from one site by a web page belonging to a second site.

Image map hot spots
A hot spot is a shape or text on an image or graphic that is also a hot link. Click the shape or text and a window pops open. A graphic or image imbedded with hot spots is an image map.

How 6:

Launch time and after

Launch time for a large, multi-page public-sector website is hectic—to say the least. Amid the chaos, stop and consider these important points:

Web governance
It is essential to write a website governance document that delineates how the new website and its content will be maintained and updated and by whom. This is important to ensure all new content adheres to the adopted style, focus, quality, technical and accessibility standards. Workflows should be delineated. Protocols and procedures for continual testing of the site and training of content creators should also be included in the document.

Continual testing
Testing should not end after the final launch. Some form of continual testing to ensure incremental improvements in accessibility and general website quality should be built into your web management protocols going forward.

Keep your community informed
During the early stages of stakeholder consultation, you worked hard to engage your community in the web renewal project. Keep them engaged by letting them know the details of the launch and what they can expect. Ask for their patience when experiencing glitches and problems. Encourage email feedback about the new site.

Keep the old site up for a while after the launch
If you will be phasing in your web renewal, you may wish to operate the new site and the old site in parallel for a while. If you do so, be sure to inform your community.

Talk to your content creators
Most large public-sector websites rely on multiple content creators (in various departments) to upload new content on an ongoing basis. Laurier is no exception. But as content is being loaded into the new CMS, it is imperative that all your content creators know that no new uploads will happen for a certain period before and after the launch. How long that period is depends on the amount of content you have and how quickly you can upload it to your CMS.

Training for content creators
Guided by your web governance document, work with content creators to establish workflows for content creation and uploads going forward. It is usually not feasible in large organizations to funnel content from all departments through one copy editing office whose staffers alone have access to the CMS. This does not produce timely updates, and one of the reasons you have a CMS is for the efficiency of allowing many people to update the website. However, having gone through all the content on your new site and edited it for style, focus, messaging, language and accessibility, you will want to ensure that all new content going forward adheres to those standards. Built-in prompts and mandatory fields in the CMS can ensure that content creators are forced to input alt texts for images, but ensuring the quality of those alt texts is another matter. Decide who in each department will have access to the CMS to upload new content and train them. In the interim, before the training is complete, have all departments funnel updates through to your main web staff.

THE LAURIER EXPERIENCE

Overlapping the old and new sites

Laurier's Phase 1 launch was an outward-facing site for prospective students. But Laurier knew that it still had to cater to the needs of existing students, staff and faculty. So it decided to operate its old site in parallel with its new Phase 1 site until the launch of Phase 2, which will include an accessibly designed intranet/portal solution.

Wilfrid Laurier University's Web Renewal

BEFORE

Homepage – Desktop display

Room for improvement

1. **Navigation:** Multiple navigation areas and crowded layout invite potential confusion
2. **Audiovisuals:** Play button not clear due to small size
3. **Text and imagery:** Some text as images where text-based alternatives could be used; alt texts used inconsistently
4. **Legibility:** Good text-to-background contrast, but small text sizes
5. **Responsive design:** Not optimized for viewing and navigation on mobile displays
6. **Writing:** Good use of plain language, but some lengthy headings and introductory sections

AFTER

Homepage – Desktop and mobile display

Improvements

1. **Easily navigable:** Simple, clear and uncluttered
2. **Audiovisuals:** Use of common internet iconography for user interactions (play button shown here)
3. **Text and imagery:** All written content is text-based; images labelled with concise, accurate alt texts
4. **Legibility:** Generous font sizes; high text-to-background contrast throughout
5. **Responsive design:** Optimal viewing and navigation for any screen size
6. **Writing:** Plain language, short and concise headings

Conclusion

This handbook was published to offer best-practice guidelines and advice to public-sector administrators as they embark on the task of updating their organizations' websites to meet accessibility standards. It is hoped that the information within has provided others with tools and resources that they can apply to their own organizations.

Large public-sector organizations serve the public in the essential areas of health care, education and government. People with disabilities are a large part of that public. Keeping websites inaccessible means that organizations fail to serve an important and influential segment of their client base. And with an aging population, that segment will only grow in numbers and economic clout.

It's time for change. It's time to unlock the doors and invite everyone in.

Appendix

Best Practices Checklist

For website design:

- ☐ Limit your assumptions about your audience—you don't know who will be accessing your site. Organizations should expect a wide diversity of users.
- ☐ Remember how a screen reader reads—left to right, top to bottom. Arrange the most important information on a page accordingly.
- ☐ Avoid using non-text content when you can.
- ☐ Consider the purpose of and the location on the page of non-text content when writing alt texts.
- ☐ To help those with low vision, avoid putting text on images or coloured backgrounds.
- ☐ Work in flexibility and adaptability—always build in alternative keyboard commands.
- ☐ Aim for good intuitive headings and subheadings.
- ☐ Remember screen readers cannot read colour cues—incorporate text-based cues.
- ☐ Avoid mouseover events.
- ☐ Avoid embedding third-party videos that are not captioned on your site. If it's unavoidable, let users know they can ask you or the originators of the content for text descriptions/captions.
- ☐ Build into your content management system (CMS) as much accessibility formatting as you can—for example, make alt text fields mandatory when uploading images.

For training and staffing:

- ☐ Offer training for all those within your organization who will be uploading content to your site on web accessibility standards and how to maintain the standards.
- ☐ Make knowledge of WCAG and web accessibility a job requirement when hiring new website personnel.

For stakeholder consultations, audits and testing:

- ☐ Consult with users with disabilities before the redesign and invite them to test the site after the beta launch.
- ☐ Bring people with disabilities into the discussion early so you can flag potential accessibility barriers before the content creation, design and coding process begins.
- ☐ Ensure that you conduct user testing with participants who use a range of assistive technologies.
- ☐ Consider moving the usability testing sessions to participants' own office or home base where they can use their own computer set-up and assistive technology.

- **For project management:**

- ☐ Convene a steering committee with diverse representatives.
- ☐ Write a project charter that covers accessibility as part of the project scope.
- ☐ Consider a phased-in approach to a large website renewal project.
- ☐ Hire an outside expert with a knowledge of accessibility standards to guide you through the auditing and stakeholder consultation process.
- ☐ Prepare to allocate ample time to migrating content and figuring out the navigation to ensure you are not creating any new barriers for users with disabilities.
- ☐ Make sure the copy on your website has a uniform style, focus, and message, and uses easily understood clear language.
- ☐ Write a website governance document that includes processes to ensure that accessibility standards—in terms of formatting and content creation—are followed when the website is maintained and updated.

- **For budgeting:**

- ☐ Develop two main budgets (and two RFPs): one for the research/consultation stage and one for the strategy/design and implementation stages.
- ☐ Remember to factor in the costs associated with accessibility; for example, captioning of all audio and audiovisual content.
- ☐ Write a total cost of ownership (TOC) document, which outlines the upfront and post-launch (ongoing maintenance) costs.

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We are dedicated to making Laurier's website accessible for all users. To learn more about how to offer your feedback regarding accessibility of the site, visit **wlu.ca/accessibility**

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