

Technology Services Improving Accessibility in Remote Meetings

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Lawrence Eta, CTO



Background

- 2013 - The City began using Cisco WebEx as its standard enterprise video conferencing tool.
- March 2020 - Regular usage of WebEx was escalated across the corporation as a result of the pandemic.
- March 2020 - Bill 187 receives Royal Assent and permits the City of Toronto to amend procedure by-laws to allow for electronic participation. City Clerk's Office begins establishing practices to support meetings of City Council, Boards and Tribunals using the Corporately approved WebEx video tool.

Background - continued

- May/June 2020 - Gaps in accessibility were identified as more City Staff gained access to the tool; Technology Services Division begins investigating issues.
- July /August 2020 - Formal complaints received on accessibility of WebEx promoting a full-scale review.
- November 2020 - City Council requested the Chief Technology Officer, in consultation with the City Clerk, to explore options for improving accessibility for all participants in remote meetings of Council and Committees, such as captioning, and report back to the Toronto Accessibility Advisory Committee.

Testing Methodology

- For the City's review of WebEx, we executed using a comprehensive evaluation. Because of the size and breadth of WebEx, our comprehensive evaluation was executed by one of the City's Web Accessibility Specialists and lasted for 17 working days.
- An initial test – Red Flag Test – was a high-level sweep of the application to understand the overall digital accessibility health of the application and understand if a viable path to remediation is available
 - As part of this review, major issues (i.e. blockers) were identified and development teams were asked to fix these items before any further evaluation is performed.

Testing Methodology – continued

- A comprehensive evaluation was a deep-dive into the application, executing a digital accessibility audit on a page-by-page level as per customer behaviour, using a combination of:
 - Automated testing (i.e. colour contrast checkers)
 - Semi-automated testing (i.e. browser plugins such as aXe and Wave)
 - Manual testing (i.e. screen readers such as JAWS and NVDA)
 - Testing executed on both desktop and mobile platforms

Product Progress – Initial State

Initial State (August 2020)

- 37 issues were identified, they affected features such as:
 - Keyboard navigation was non-functional, unable to use keyboard-only on Chat, Q&A, Polling, Participants panel, Panelists panel, and any dialog.
 - Key features like Chat, Polling were non-functional for assistive technology, options would not be read out by screen readers. Instead of reading “Option A”, screen reader would announce, “blank”.
 - Button functionality was not compliant for screen readers and for keyboard navigation. This included mute/unmute, “more options”, sharing functions, side panels, and chat features. Screen readers would announce “button” without description.

Product Progress – Today

- 33 issues resolved, including:
 - Keyboard navigation is smoother, colour contrasts are met, buttons are correctly labelled, focus order are logical, keyboard focus are visible and noticeable.
 - The available buttons and contents are now compliant, allowing users with different types of colour blindness to still be able to identify the text on the buttons and the contents.
- The application itself is being constantly changed and improved, the City is heavily involved in the feature suggestions and improvements, recognizing the differences of how users access our meetings. We continue to focus on accessibility and testing against accessibility standards.
- Additional added features:
 - Artificial Intelligence (AI) captioning has become available with high accuracy and displaying the correct speakers.
 - A list of keyboard shortcuts allowing users to reference and customize.
 - Custom layouts and the ability to zoom-in on ASL interpreters.

Product Progress – Future State

Future State (Upcoming Release)

- Remaining 4 issues:
 - Ensure all status messages are correctly announced through screen readers. This includes three specific functions:
 - Chat – Instructional information needs to be identified by screen readers
 - Polling – Screen readers need to be able to identify when polling options are selected
 - Drop down options are not always specifically announced.
 - While keyboard navigation can be customized, it's not intuitive. The City is seeking to improve user experience by making navigation more intuitive. WebEx uses F6 for keyboard navigation and needs to make foundational changes to improve navigation.

Ongoing Collaboration and Improvements to ensure accessibility in Legislative meetings

- Meetings of City Council, Committee, Boards and Tribunals are produced as a result of a collaboration between City Clerk's Office and Technology Services Division.
- City Clerk's Office has invested in Communication Access Real-time Translation (CART) Services and American Sign Language (ASL) for electronic meetings when required and requested.
- City Clerk's Office staff work with Members of Council, Boards and Tribunals to address any concerns, questions and issues they have with WebEx and/or their hardware.

Ongoing Collaboration and Improvements to ensure accessibility in Legislative meetings

- Public who register to speak at Committee, Boards and Tribunals can do so via various devices (phone, computer or tablet) to ensure their WebEx experience meets their specific needs.
- As WebEx technology is changed and or enhanced, Technology Services Division advises City Clerk's Office of changes. Considerations are made on how changes might impact the overall meeting process, Members, public and staff.
- City Clerk's Office is continually reviewing electronic meeting process.

Ongoing Collaboration and Improvements to ensure accessibility in Legislative meetings

- Technology Services Division is committed to:
 - Broadening user experience and acceptance testing to wider audiences of employees.
 - Accessibility-testing each release, patch, or bug fix we implement.
 - Logging accessibility issues on an ongoing basis.
- A training video has been created to help members of the public and City staff to use accessibility features (video demo to follow presentation).

Appendix



Policy Context

- **Corporate Accessibility Policy**

- Relates to accessibility in the physical and the digital realm
- City goods, services and facilities are to be available to people with disabilities in a manner that:
 - is free from discrimination
 - strives at all times to respect the individual's dignity and independence

- **Digital Accessibility Standard**

- The is committed to ensuring that all our web-based services and information are accessible and usable by residents, businesses, visitors and City staff.
- All public websites, web applications and web content must conform with WCAG 2.0 Level AA, by Jan 1, 2021

Digital Accessibility Project

Technology Services initiative, responsible for digital accessibility leadership within the City. The scope of the project includes:

- Evaluate all existing public-facing and high-priority internal web applications.
- Partner with applications owners on remediation efforts.
- Deliver digital accessibility training, education and awareness.
- Establish City Digital Accessibility Standard and Digital Accessibility Principles & Knowledge Base.
- Implement an "Accessibility by Design" approach in City processes – considering accessibility from the start, not as an afterthought.