



Broadcasting Accessibility Fund

Meeting the Challenge of Content Accessibility

Summary of Projects

June 2025

Who we are and what we do

The Broadcasting Accessibility Fund (the Fund) is mandated to provide financial support for projects that target barriers or gaps in content accessibility for people with disabilities, whether this content is provided via television, radio, online or via other platforms – and is the only fund of its kind, anywhere.

The Fund originated from CRTC-approved purchase of CTV by Bell Media, and a concerted effort from consumer groups representing people with disabilities to include “accessibility” as part of transaction benefits.

Each February, a Call for Letters of Intent is announced, inviting project proposals that fit with the Fund’s mandate. Projects are encouraged in areas such as R&D (such as new apps or software), Education (such as developing post-secondary courses in Accessible Content), Business Innovation (such as seed funding or new business cases), or combinations of these streams.

Project Descriptions

2015-2025



- The Fund has completed eight cycles of grant awards, supporting 41 projects with a total of \$4.4M of funding committed to addressing on-going gaps in broadcasting accessibility. The average grant per project is approximately \$110K. Strong funding guidelines are in place.
- Grants are provided incrementally, based on the progress of a project, and are tied to binding Project Management Agreements negotiated by the Fund and the grant recipient.
- Grant recipients are required to provide financial reporting, and abide by the Fund's established criteria for the appropriate use of all monies.
- Grant recipients are contractually required to share the results of their work, and provide non-proprietary access to software and other products resulting from initiatives supported by the Fund.

Completed Projects



1. [Mohawk College of Applied Arts and Technology](#) - Accessible Media Production Course
2. [Canadian Broadcasting Corporation \(CBC\)](#) - Making CBC Radio Accessible projects (2 projects)
3. [Canadian Hard of Hearing Association \(CHHA\)](#) - Broadcasting Accessibility for Hard of Hearing Canadians
4. [Komodo OpenLab Inc.](#) - Tecla Remote Switch Access Device
5. [Rogers Communications Inc.](#) - Designing Screen Reading Capabilities for the 10-foot User Interface
6. [Vues et Voix](#) - Radio with a Voice (French-language project)
7. [Mediac Systems](#) - Enhanced real-time & post-production captioning for VoiceWriter software
8. [Centre de Recherche Informatique de Montréal \(CRIM\)](#) - Access Filmodio (French language project)
9. [Canadian Hearing Society \(CHS\)](#) - Barrier-Free Emergency Communication Access and Alerting System
10. [Radio-Canada](#) - Video-description Accessible Audio-Video Player (French language Project)
11. [Canadian Association of the Deaf \(CAD\)/Captioning Consumers Advocacy Alliance \(CCAA\)](#) – Live CC project
12. [Humber College](#) - Accessible Design in Broadcast Media
13. [Accessible Media Incorporated \(AMI\)](#) - Integrated Described Video Instructional Series

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Completed Projects

14. [Ryerson University](#) - Market Analysis re: Continuing Education Course
15. [PAVO Digital Inc.](#) - VoiceWriter captioning software
16. [Ryerson Radio](#) - SmartTones Powered Radio App
17. [Neil Squire](#) - Mapping Physical Access Solutions to Broadcast Television
18. [Centre de Recherche Informatique de Montréal \(CRIM\)](#) - Web DV (French-language Project)
19. [Keeble Media](#) - NER Consumer Evaluator Project
20. [PAVO Digital Inc.](#) – AI Voice Recognition Project
21. [Mohawk College and Inclusive Media and Design](#) - CapScribe 2.0
22. [Carleton University](#) - Universal Intelligent Assistive Devices for Media Content Accessibility
23. [Radio-Canada](#) – Providing transcription for “Aujourd’hui l’histoire” radio show (French-language Project)
24. [Radio-Canada](#) - Evaluation and testing of Langue de Signes Québécois content (French-language Project)
25. [Humber College](#) - Accessibility as Aesthetic in Broadcast Media: Three Disability-Led Films
26. [Centre de Recherche Informatique de Montréal \(CRIM\)](#) – French VVD (French-language Project)

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- 27. [Ryerson University](#) - Continuing Education Course Series for Inclusive Media for Broadcast Production
- 28. [Canadian Broadcasting Corporation](#) - Advancing the current state of accessibility to broadcasting content in Canada by increasing the volume and breadth of content offered with American Sign Language
- 29. [Ryerson University](#) - Development of a method of automatic closed captioning quality subjective assessment using an AI Technology
- 30. [Inclusive Media & Design and Inclusive Design Research Centre](#) - CapScribe 3.0
- 31. [Seneca College](#) - Producing Accessible Podcasts
- 32. [Northern Alberta Institute of Technology](#) - NAIT Captioning and Court Reporting Diploma Online
- 33. [Canadian Association of the Deaf](#) - Understanding User Experiences of Play-by-Play Captioning in Fast-Paced Live Sports
- 34. [University of Montreal](#) - Certificate Pilot Project (30 credits) in Inclusive Media with a focus on developing captioning and audio description skills (French-language Project)
- 35. [CRIM](#) - VD-Qual – English and French Described Video
- 36. [PAVO Digital](#) - Improving live captioning delivery quality with Artificial Intelligence

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Completed Projects



37. [PAVO Digital](#) - Measuring Caption Quality for Automatically Generated Captions: NER and CAIS Comparative Evaluation, Enhancement and Integration

38. [CBC](#) - Optimization of Closed Captioning for Children with Disabilities

[Ongoing Projects and Future Competitions](#)

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Mohawk College of Applied Arts and Technology

Accessible Media Production Course - Journalism (\$80,000)
October 2016 – November 2017

- Accessibility Issue: On-going need for accessibility training for media professionals.
- Developed an Accessible Media Production Course as a required course for all Journalism program students. Made available online for free to colleges and universities across Canada.
- Impact: Sharing accessibility best practices, technologies and regulations ensures that journalists are better informed of their role in creating and distributing accessible media to all Canadians.

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Topics Covered



Legislation

Examine disability legislation as it applies to media and content creation.



Disability Perspective

Investigate disability models and examine how assumptions, stereotypes and misconceptions have shaped traditional media content.



Alternative Communication

Explore augmentative and alternative communication methods and how individuals with communication disabilities interact with information and communication.



Assistive Technologies

Investigate assistive technologies and interaction with digital content.



Accessible Meetings & Events

Explore how to organize inclusive and accessible meetings and events.



Video Captioning

Students will be introduced to CC, DV and IDV.

Canadian Broadcasting Corporation (CBC)

A National Conversation – Making CBC Radio Accessible (\$61,630)

December 18 2015 – March 21 2016

Continuing the National Conversation: Making CBC Radio Accessible (\$61,953)

September 1 2016 – November 15 2017



- Accessibility Issue: Accessible radio programming content for underserved groups, particularly deaf-blind Canadians.
- Transcripts of CBC's national flagship program *The Current* and *As It Happens* produced and posted daily on cbc.ca; monthly documentaries produced in ASL and posted to cbc.ca
- Impact: Creating transcripts allows a more accessible programming experience for:
 - Those who experience difficulty understanding audio on its own.
 - Those who wish to consume the content at their own pace.
 - Providing an accessible means for those with hearing loss to access content.
 - Offering a new way for people to access and reference the content online.

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Canadian Hard of Hearing Association

Broadcasting Accessibility Education for Hard of Hearing Canadians (\$125,000)

April 1, 2016 – December 15, 2017

- Accessibility issue: Lack of awareness about accessibility technology already available to consumers with disabilities
- Project to assist hard of hearing Canadians with accessible technologies, building knowledge to improve accessibility of broadcast content
- Impact: Created resources to ensure consumers with hearing loss have the information and tools they need to access broadcast media, to know what to do when things are not accessible, and to provide tangible tools to organizations so they may create accessible online content.



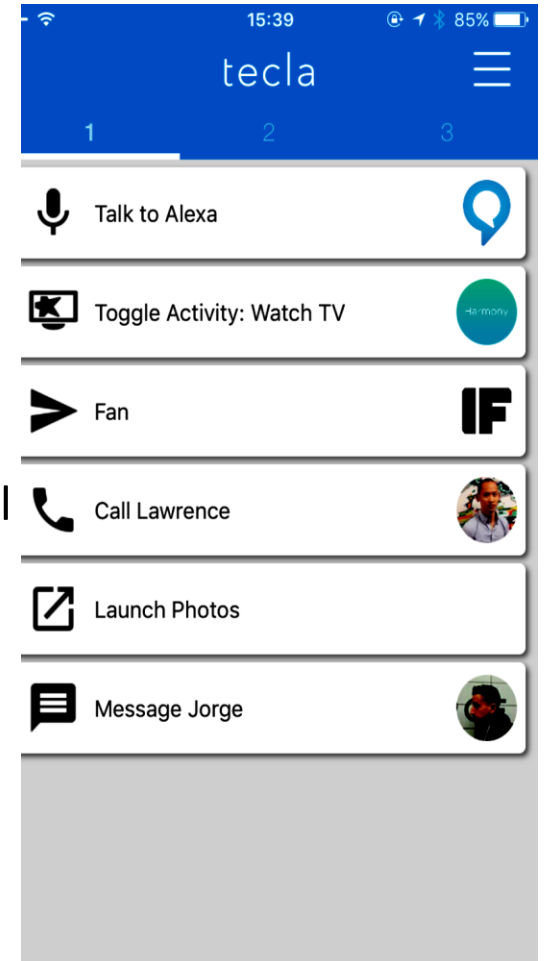
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Komodo OpenLab Inc.

Tecla Remote Switch Access Device (\$77,500)

December 1, 2015 – August 13, 2016

- Accessibility issue: Simplified access to media content devices for people with mobility disabilities.
- The project enabled the development of a fully accessible mobile application, “The Tecla remote”, a switch access device enabling users with limited mobility to control a range of media devices, using the same controls they use to operate wheelchairs.
- Impact: This versatile mobile application offers users with limited mobility greater control and customization of their own personal remote to access a wide variety of appliances, and smart phone/tablet functions using either voice or touch commands.



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Rogers Communications Inc.

Designing Screen Reading Capabilities for the 10-foot User Interface

(\$140,000) January 1, 2016 – March 1, 2017

- Accessibility issue: Huge barriers to the navigation of on-screen menus for blind and low vision consumers.
- Developing screen reading capabilities on a prototype set-top box, for people who live with low or no vision within a “10-foot user experience”, that allows easier access to menu navigation.
- Impact: This research improves accessibility to television menu content for low and non-sighted users. Using the prototype, participants were able to use screen reading capabilities to navigate menu options, and with additional voice assistance instructions to complete initial system setup steps, and through to the usage of common menu features.

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Vues et Voix

Radio with a Voice (French-language project) (\$115,765)

November 30, 2015 – September 30, 2016

- Accessibility issue: Making web-sites hosting disability-targeted broadcast content accessible to its audience.
- This project increased radio programming focusing on disability and accessibility related stories in the French language program “Vues et Voix”, and improved website accessibility so that Canadians of all abilities can enjoy the content online.
- Impact: The improvements made to the website ensure the greatest possible accessibility of radio and disability content, responding to new on-demand listening habits, increased audience participation and interactivity, and connection with the community.

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Mediac Systems Inc.



Enhanced real-time & post-production captioning for VoiceWriter software (\$123,170)

December 1, 2015 – November 30, 2016

- Accessibility Issue: On-going issues with accurate and intelligible closed captioning for live programming content
- This project aimed to create an enhanced captioning software with CEA708 digital captioning functionality, animated caption options and added speaker-dependent shadow captioning functionality for real-time and post production captioning.
- Impact: Providing Alternative Viewing Opportunities (PAVO) includes a modular design with compatible file formatting and Internet transmission encoding, text customizability, multi-lingual design, an improved user interface, and the ability to import dictionaries. The initial rendition of the software was an important first step in creating an improved captioning tool.

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Centre de Recherche Informatique de Montréal (CRIM)

Access Filmodio (French language project) (\$101,442)

October 15, 2016 - November 30, 2017

- Accessibility Issue: Video Description (VD), while available for many televised programs, only provides a limited amount of information for non-sighted users. Online forums currently offer very limited options that offer VD.
- This project includes the development of a new online media player, Filmodio, that offers enhanced VD to accompany video clips, with a level of detail similar to an audiobook.
- Impact: This prototype furthered the development of accessibility technology well beyond minimum standards for those who rely on VD, as well as being in an online forum where such features are seldom implemented.



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Canadian Hearing Society (CHS)

Barrier-Free Emergency Communication Access and
Alerting System (\$135,000)

October 15, 2016 - March 31, 2018

- Accessibility Issue: Systemic barriers for people who live with hearing loss, are Deaf or Deafblind to emergency alerts
- This project involved intensive research to develop practical recommendations to make emergency broadcasting accessible to Canadians who are Deaf, Deafblind or live with hearing loss.
- Impact: The recommendations are being used to inform members of the national public alerting system and associated broadcasting agencies and update best practices. This will result in expanded services offered through multiple platforms and improved accessibility to emergency broadcasting systems for people living with hearing loss, identify as Deaf or are Deafblind.

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Radio-Canada

Accessibilité web



Video-description Accessible Audio-Video Player (French language Project) (\$96,200)

October 15, 2016 - January 31, 2018

- Accessibility Issue: Updating Radio Canada's website to include a video-description accessible audio-video player, and integrating other accessibility features such as captioning, screen reader compatibility, enhanced visibility of website features and keyboard accessibility among other additions.
- Impact: This project furthered the development of online accessibility technology well beyond minimum standards for those who rely on VD. The additional updates that increase web accessibility across platforms, screen reader compliance and keyboard navigation also enhance access for users of all abilities.

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The Canadian Association of the Deaf (CAD)/ The Captioning Consumers Advocacy Alliance (CCAA)

Understanding User Responses to Live Closed
Captioning in Canada (\$125,000)

November 2015 - June 2018



- Accessibility Issue: Ongoing issues with live captioning are not clearly understood at present, but there are generally known problems such as delays, missed information and difficulty for viewers to differentiate speakers.
- This research project has established a validated baseline for how consumers evaluate captioning, and the results help inform broadcasters, captioning providers and consumer organizations to advocate for and implement improvements to this essential service.
- Impact: The research, analysis and resulting publications created through this project can be used to support funding stream activities in the future while supporting the existing regulatory obligations of the broadcasting industry.

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Humber College

Accessible Design in Broadcast Media (\$130,900)

October 1 2016 - November 15 2017



- Accessibility Issue: On-going need for accessibility training for media professionals.
- Humber College has implemented a new six-module course to raise awareness of the systemic, attitudinal, physical and technological barriers that interrupt accessibility in current broadcast media practices. This course is now available to all School of Media Studies and Information Technology students as well as the public through free, online modules.
- Impact: This project increases knowledge of a wide variety of accessibility features for current and future broadcasting professionals, helping to increase compliance with CRTC regulatory obligations (as well as measures that go beyond these obligations), promoting sensitive and inclusive language in journalism.

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Accessible Media Inc. (AMI)

Integrated Described Video Instructional Series (\$82,500)

September 15, 2017 - February 16, 2018



- Accessibility Issue: Sighted users can find traditional Video Description (VD) narration off-putting, and in the case of mixed viewing audiences (eg: a family with sighted and blind viewers), the blind viewer may opt out of watching television with family members.
- AMI's bilingual web video series outlines the concept and benefits of Integrated Described Video (IDV). Inclusive media can be seamlessly consumed by mixed viewing audiences by integrating the description of visual elements into the script (instead of having additional voice-over narration, as is done with traditional DV).
- Impact: Due to the manner in which IDV programming is created, an optimal viewing experience is provided for a mixed viewing audience, fostering inclusion. Through this initiative, Integrated Described Video is promoted to the broadcast industry through a web series that provides tangible examples of IDV.

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Ryerson University

Phase One: Market Feasibility and Analysis to determine interest in a Continuing Education Course Series for Inclusive Media for Broadcast Production among adult learners (\$11,995)

October 25 2017 - March 31 2018

- Accessibility Issue: Determine the need and interest in a continuing education course for Inclusive Media in Broadcast Production, designed for adult learners.
- Two studies were conducted, via online forums and face to face interviews.
- Impact: The results of both studies suggest that students are interested in accessibility and consider it important enough to recommend that accessibility topics be included in undergraduate programs as well as a separate certificate. As a result of this market survey, a course series is recommended to be developed and offered at Ryerson University, and potentially other post-secondary institutions.

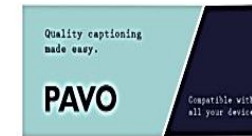
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PAVO Digital Inc.

Enhanced real-time and post-production captioning for VoiceWriter captioning software (\$81,440)

October 5 2017 - February 26 2018

- Accessibility Issue: Deaf viewers may have difficulties identifying the speaker and sound effects in a way that makes sense to them. Previous captioning systems were unable to resolve these issues, but PAVO implements new solutions by including animated captions and speaker identification.
- Impact: PAVO Digital Inc. has developed software called PAVO using a CEA-708 digitally compatible system for captioning. Several modules were developed: PAVO-Cap (for post-production captioning), PAVO-Quick (for real-time transcription or CART), and PAVO-Cat (for stenographic court reporting).



easy to share



customize & configure



efficient

FEATURES FORMATTED
FOR ATSC BROADCASTING



support multi-platforms



real-time & off-line projects



colour scheme

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Ryerson Radio

SmartTones Powered Radio App for Increased Accessibility & Enhanced Audience Engagement (\$64,655)

October 18 2017 - July 31 2018

- Accessibility Issue: Addressing accessibility barriers to radio content via mobile devices.
- SmartTones uses 100% silent audio tones to deliver context-driven experiences from broadcast media to mobile devices.
- Impact: The mobile app will trigger contextual content related to the broadcast that is accessible so that all audience members will be able to participate, share and take action in response to what they see or hear, regardless of ability. For example, deaf audiences being able to receive visual emergency alerts, and accessible second screen content is available for blind and low-vision audiences.

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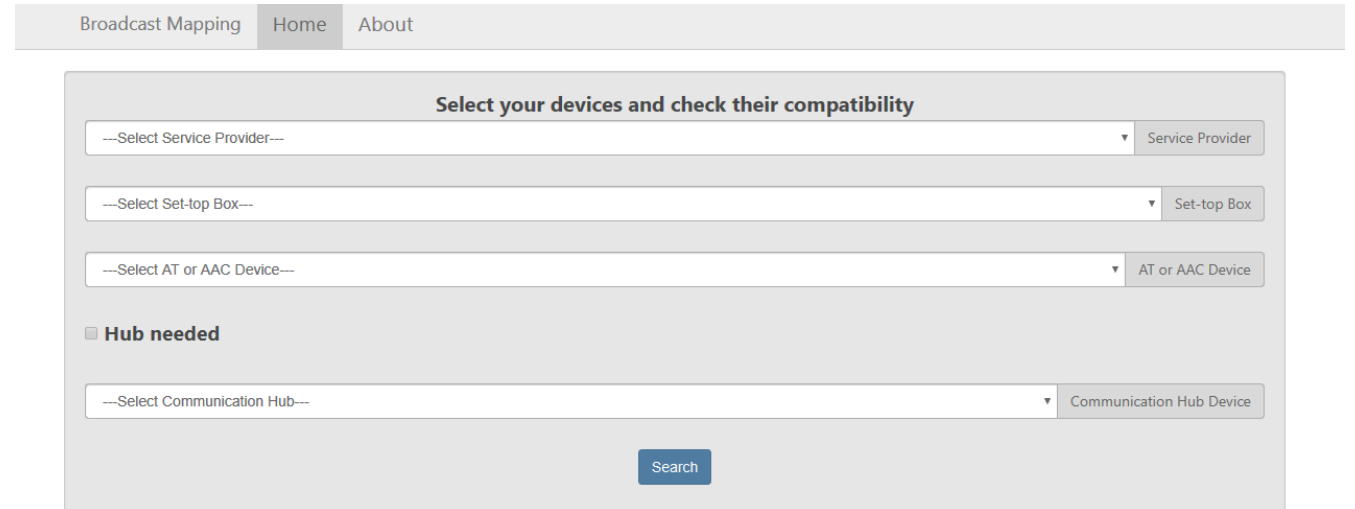
HOME PAGE



Neil Squire Society

Mapping Physical Access Solutions
to Broadcast Television (\$169,208)

November 1 2017 - May 31 2019



The screenshot shows a web interface for 'Broadcast Mapping' with a navigation bar containing 'Broadcast Mapping', 'Home', and 'About'. The main content area is titled 'Select your devices and check their compatibility'. It features four dropdown menus: '---Select Service Provider---' (labeled 'Service Provider'), '---Select Set-top Box---' (labeled 'Set-top Box'), '---Select AT or AAC Device---' (labeled 'AT or AAC Device'), and '---Select Communication Hub---' (labeled 'Communication Hub Device'). There is a checkbox labeled 'Hub needed' and a 'Search' button at the bottom.

- Accessibility Issue: Research into accessibility barriers and solutions for people with limited or no use of their hands, and information about using existing and emerging assistive technologies to access broadcasting content through set-top boxes and broadcaster smartphone based applications.
- Impact: This online app offers a simplified compatibility checking tool for commonly used Augmentative and Alternative Communication (AAC) and Assistive Technology (AT) devices for three major broadcasting services in British Columbia.

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Centre de Recherche Informatique de Montréal (CRIM)

Web DV (French-language Project) (\$65,290)

January 2019 - March 2020

- Accessibility Issue: Testing the feasibility of video insertion technology designed for advertising, this project tested two extended Web Described Video (DV) production approaches. This project builds upon existing production technologies previously developed by CRIM, and was tested by users with low or no vision.
- Impact: The results of this research encourages Broadcasters to continue to seek out and test novel DV broadcasting solutions to meet the needs of individuals living with low or no-vision, in both official languages in Canada.

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Keeble Media

NER Consumer Evaluator Project (\$156,000)

January 2019 - March 2020

- Accessibility Issue: Using the NER tool for measuring captioning accuracy, nine deaf and hard of hearing consumers have been trained to assess English language live captioning.
- Impact: Training consumers with hearing loss will generate feedback to improve NER implementation and raise awareness of NER testing among broadcasters. The NER Evaluators certified through this program will have postings on the [NER Canada](#) website, indicating the evaluators who are prepared to undertake freelance evaluations. The work these evaluators do will tangibly increase accessibility in broadcasting by improving the accuracy of live captioning.

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PAVO Digital Inc.

Developing Artificial Intelligence Post Processing Methods for Improving Speaker-Independent Voice Recognition (\$111,375)

January 2019 - January 2020

- Accessibility Issue: Speech recognition technology is not yet a suitable tool for captioning, due to the high frequency of errors.
- Impact: Research into the use of Artificial Intelligence (AI) to increase the accuracy of closed captioning using speech recognition technology. This type of post-processing software, called Cognitive AI for Realtime Linguistics (CARL) has the potential to optimize voice recognition as a captioning method by focusing on patterns of context in a text format, ultimately enabling the development of an AI text correction system that would ideally reduce the rate of errors in captioning to less than 1%. While a great deal of functionality was achieved with CARL, there is still more work to be done to develop a marketable software. A new Letter of Intent for a project extension has been submitted in February 2020.

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Mohawk College and Inclusive Media & Design Inc.



CapScribe 2.0 (\$163,029)

January 2019 - September 2020

- Accessibility Issue: There are few user-friendly tools available to help content creators add in their own captioning or described video tracks.
- Impact: CapScribe 2.0 offers greater access to broadcast content for persons with disabilities, predominantly those with hearing and vision loss, by providing a free application to add in captioning and DV tracks in video clips. This application has been modernized to ensure compatibility to existing operating systems and devices and provide compatibility with alternative access systems used by captioners and describers with disabilities. There is still more work to be done to develop a finalized application for launch. A new Letter of Intent for a project extension has been submitted in February 2020.

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Carleton University

Universal Intelligent Assistive Devices for Media Content Accessibility (\$83,600)

January 2018 - April 2021

- Accessibility Issue: Modern entertainment technologies lack accessibility features to ensure access for persons with functional deficits.
- Impact: The project aims at developing generic communication boxes (with prototype hardware, software, EMG and Vision processing, as well as communication code with the Roku media delivery system) that can communicate with various devices and also the custom tools/sensors used by persons with disability.

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Radio-Canada

Providing transcription for Radio-Canada content:

a forward-looking project for Francophone Canadians living with hearing impairments (French-language project) (\$103,550)

October 2019 - October 2021

- Accessibility Issue: Accessible radio programming content for underserved groups, particularly deaf-blind Canadians.
- Transcripts of Radio-Canada's national flagship program "Aujourd'hui l'histoire"
- Impact: Developed a functional prototype to generate automated transcripts for audio programming. The trial program for transcription will be Aujourd'hui l'histoire (Today in History), a half-hour series that runs Monday to Friday on Radio-Canada's main radio network.



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Radio-Canada

Evaluation and testing of Langue de Signes Québécois content: A first step towards developing signed content at Radio-Canada (French-language Project) (\$31,800)

October 2020 - 2021

- Accessibility Issue: Accessible programming content for underserved groups, particularly Deaf Canadians.
- Impact: This initiative explored promising opportunities for signed content in Langue de Signes Québécois (LSQ) with research to determine the status of LSQ users and identify: their content needs, initiatives that have led to signed content at the national and international levels and current approaches to signing audio and video content. These results will serve as the basis for Radio-Canada's LSQ content strategy, and results are openly shared with other broadcasters and organizations interested in LSQ content development. The LSQ content strategy has been implemented in delivering signed content for the [2021 Montreal municipal election](#).

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Humber College

Accessibility as Aesthetic in Broadcast Media: Three Disability-Led Films (\$131,481)

October 2019 - August 2021



- Accessibility Issue: Several updates to Humber's Making Accessible Media course, including new topics on representation, digital design, interactive design and real time events have been integrated.
- Impact: Fully accessible films and podcast content led by filmmakers with disabilities, will inform the Canadian broadcasting industry of the importance and value of inclusive design. The project will raise the profile of inclusion through the perspectives offered in the three films. The project stems from the Making Accessible Media course that was originally funded by BAF and became a permanent part of Humber's course offerings in the School of Media Studies and Information Technology.

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Centre de Recherche Informatique de Montréal (CRIM)

French-language Video and Video Description (French-language Project) (\$137,894)

October 2019 - August 2021

- Accessibility Issue: Developing described video in any language is a time-intensive process, using AI to streamline this process and allow for human editing after an initial draft is created would reduce post-production time and labor.
- Impact: This project utilizes a machine learning method known as Deep Learning to the automatic production of French-language Described Video. The project saw the compilation of a French-language video description dataset and compared it with the dataset already produced in English. A set of annotated French-language videos called VVD (video and VD) were created and form a solid foundation for future work.

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Ryerson University

Continuing Education Course Series for Inclusive Media for Broadcast Production (\$119,636)

January 2019 - January 2022



- Accessibility Issue: Lack of educational resources specifically focused on re-speaking techniques for closed caption production, and audio description techniques.
- Impact: Developing continuing education course series focused on inclusive design for broadcast production, with a key focus on the instruction of re-speaking techniques for live closed captioning, and audio description techniques including scripting.

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Canadian Broadcasting Corporation (CBC)

Advancing the current state of accessibility to broadcasting content in Canada by increasing the volume and breadth of content offered with American Sign Language (\$83,505)

October 2021 - July 2022



- Accessibility Issue: Lack of ASL interpretation in broadcast television – specifically, sports content.
- Impact: This project increased the volume and breadth of content offered with American Sign Language (ASL) by providing interpretation for the 2022 Beijing Olympics and Paralympics Opening and Closing ceremonies, as well as in daily signed recap shows. Research on best practices of signed content development, via review of current approaches and regulatory requirements, initiatives undertaken by other broadcasters, and focus groups with Deaf Canadians, informed new strategies to ensure smooth integration into workflow. New CBC production facilities, designed especially for ASL interpretation, were used to record sign language interpretation.

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Ryerson University

Development of a method of automatic closed captioning quality subjective assessment using an AI Technology (\$79,984)

October 2019 - March 2022

- Accessibility Issue: Need for greater Deaf and Hard of Hearing perspective in live closed captioning assessment.
- Impact: An artificial intelligence system to automate the assessment of live closed captioning by consumers, and to reflect the perspectives of Deaf and Hard of Hearing consumers of captioning was developed. This system will create the initial research base for a cost-effective way to include the perspectives of Deaf and Hard of Hearing audiences in the assessment of captioning quality, as a compliment to human assessment.

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Inclusive Media & Design and Inclusive Design Research Centre



CapScribe 3.0 (\$160.000)

October 2020 - July 2022

- Accessibility Issue: This project built upon previous work undertaken in CapScribe 2.0 by creating a more efficient workflow, an upgraded interface design addressing a wide range of accessibility needs, and pilot integration with Learning Management Systems.
- Impact: Captioning and description modules will be enhanced and support for ASL/LSQ video has been provided along with new features promoting ease of use, automation and team collaboration. Marketing and sustainability models have been implemented to support free models for post-secondary organizations.

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Seneca College

Producing Accessible Podcasts (\$115,750)

December 2021 - June 2022



- Accessibility Issue: A paucity of accessibility in podcasting production courses, despite a growing market of podcasts online.
- Impact: Development of an accessible podcast production micro-credential course, that offers content creators the skills and resources needed to produce accessible podcasts (including topics that address a range of accessibility issues) and offers students who are deaf and hard of hearing the tools to produce their own podcast content and alleviates a growing gap in online content accessibility. The curriculum has been developed using Inclusive Design principles, in partnership with the Canadian Hard of Hearing Association.

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Northern Alberta Institute of Technology (NAIT)

NAIT Captioning and Court Reporting Diploma Online (\$100,000)

October 2019 - March 2022

- Accessibility Issue: Limited access to in-person Captioning training programs that would be alleviated by converting NAIT's existing diploma program to an online format.
- Impact: The NAIT Captioning and Court Reporting Program converted its existing diploma program to an online format, and now delivers a web-based curriculum training in English-language steno captioning. Transitioning to an online format will increase the number of students able to enroll in the Captioning and Court Reporting Program, and will result in greater captioning support for the broadcasting industry.

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Canadian Association of the Deaf (CAD)

Understanding User Experiences of Play-by-Play Captioning in Fast-Paced Live Sports
(\$191,570)

October 2019 to May 2023

- Accessibility Issue: Ongoing challenges in the efficacy of live captions, particularly for fast-paced sports.
- Impact: Fast paced live sports (such as hockey) continues to be one of the most difficult genres of programming to accurately caption with minimal loss of information. This project sought to better understand how the presence and nature of play-by-play captioning of fast-paced live sports programming contributes to or detracts from the user experience and satisfaction of live sports programs. Eye-tracking technology and user feedback on various forms of captioning were explored and analyzed in a [Technical Report](#), and on the [Live Captioning Canada website](#).

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University of Montreal

Faculté des arts et des sciences
Département d'histoire de l'art
et d'études cinématographiques



Certificate Pilot Project (30 credits) in Inclusive Media with a focus on developing captioning and audio description skills (French-language Project) (\$75,000)

October 2020 to August 2023

- Accessibility Issue: Severe paucity of French language accessible media production courses in Canada.
- Impact: Development of the first [inclusive-media certificate program in French](#) offered by a Canadian university, providing advanced training in closed captioning, sign language videography, audio description and scriptwriting techniques. The certificate program consists of 10 courses offered by Labo CinéMédias and offered by the University of Montreal's Department of Art History and Film Studies. This project fills a gap in the broadcasting industry for the training and education of French-language captionists and video description professionals available to the public.

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Centre de Recherche Informatique de Montréal

VD-Qual – English and French Described Video Writing Assistant (French-Language Project) (\$134,405)

December 2021 to September 2023



- Accessibility Issue: Lack of free resources to edit/update described video versioned content.
- Impact: The VD-Qual project includes a suite of diagnostic and correction tools for described video texts in order to improve their quality in both English and French. CRIM has deployed a demo version of VD-Qual on an [accessible website](#), allowing users to submit a video description, either in plain text or in a “Timed text” format, and to view a highlighted video description and download the results for personal use. [Source Code](#) is also provides so future research can build upon this work.

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Improving live captioning delivery quality with Artificial Intelligence (\$131,216)

October 2020 to January 2024

- Accessibility Issue: Need to combine several captioning software tools developed by PAVO into a single usable product
- Impact: This project has consolidated several captioning software tools into a single product, building on two previous projects. Further development of a captioning software that promotes the role of captioners to supervisors of AI-based speech to text outputs using a real time English-language prediction engine. This project saw further integration of this software into the [PAVO captioning offerings](#) as well as performance benchmarking and system evaluation by trained and novice captioners. An [Instruction Manual](#) and [Website](#) were created for a subsequent marketable version to be developed in the future.

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Measuring Caption Quality for Automatically Generated Captions: NER and CAIS
Comparative Evaluation, Enhancement and Integration (\$123,251)

October 2022 – May 2024

- Accessibility Issue: Seeking novel approaches to assessing auto-generated captions to reflect the preferences of deaf/Deaf/Hard of Hearing viewers
- Impact: Building upon previously funded projects – specifically, the NER Evaluator Project (Keeble Media, Round 4) and Caption Quality Assessment Intelligent System or CAIS (Ryerson University, Round 6) – this project employed an Active Learning algorithm based on Query-by-Committee, incorporating multiple Artificial Neural Networks to assess live captioning samples by various source datasets (representing d/Deaf and HoH group preferences) en masse, per evaluation. These tools reflected qualitative errors based on subjective Deaf/Hard of Hearing viewer perspectives, particularly for auto-generated captions.

Canadian Broadcasting Corporation (CBC)

Optimization of Closed Captioning for Children with Disabilities (\$107,467)

October 2023 – July 2024

- Accessibility Issue: Lack of research into the preferences of children who rely on closed captioning
- Impact: With research partner CanChild at McMaster University, using existing and new targeted research, the CBC's "Optimization of Closed Captioning for Children with Disabilities" evaluated the effectiveness of three closed caption styles in children's programming: traditional bottom placed CC, karaoke-style synchronized CC, and CC placed dynamically near focal points on the screen. The study involved 67 children aged 6 to 10, with varied reading levels and abilities, to assess how these styles impacted their reading behaviour, comprehension, and preferences. CBC created three videos using different stories provided by CanChild. The stories chosen were fun topics for children and could easily be made into videos and mirrored CanChild's comprehension testing. Eye-tracking was used for in-person participants to observe preferences in real-time reading behaviour and to determine which caption style most effectively aided

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On-going Projects and Future Competitions

- Projects that are currently on-going:
 - Canadian Cultural Society of the Deaf
 - Accessible Sign Language Animation Prototype with Technical and Pedagogical Guidelines designed to Benefit Animation Companies and Broadcasters (\$120,000)
 - January 2023 – April 2024
 - This initiative will research and deliver an animated sign language character prototype model and publicly available best practices Technical and Pedagogical Guide for Accessible Broadcast Sign Language Animation. Partnership with expertise from Deaf community leaders and sign language linguists, paired with technical animation experts will lead to the first best practice guide for accessible sign language animation for animation companies and broadcasters. The technical focus is to apply motion capture technology in order to explore ways to animate ASL movements. Research findings will be shared with the animation industry and would be presented at key animation creator events (e.g. the Toronto Animation Arts Festival, Toronto Comic Arts Festival, Ottawa International Animation Festival, Youth Media Alliance / Alliance Médias Jeunesse, SIGGRAPH and Kidscreen). The best practice guide will be made available on the CCSD website.

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On-going Projects and Future Competitions

- Launch of the Round 9 Call for Letters of Intent in February 2026

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