Using Assistive Technology to Create an Inclusive Classroom

Dr. Rob Power

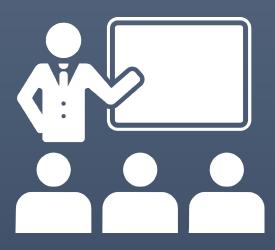
Assistant Professor, Education Cape Breton University

Land Acknowledgement

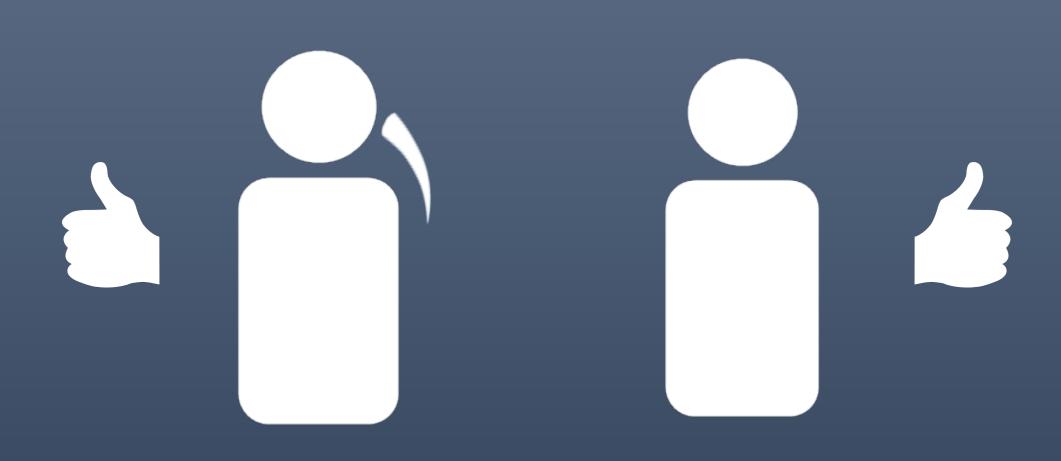
Cape Breton University's Department of Education recognizes that Cape Breton Island is in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People. This territory is covered by the "Treaties of Peace and Friendship" which Mi'kmaq and Wolastoqiyik (Maliseet) people first signed with the British Crown in 1725. The treaties did not deal with surrender of lands and resources but in fact recognized Mi'kmaq and Wolastoqiyik (Maliseet) title and established the rules for what was to be an ongoing relationship between nations.

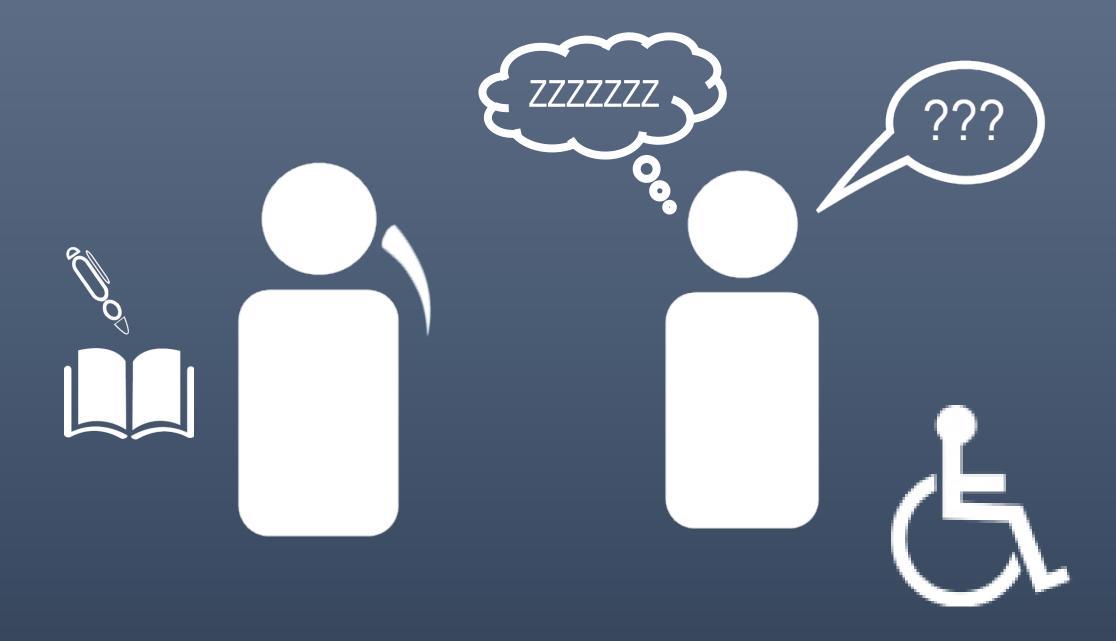
My Perspective











Reasons to Leverage Technology for Inclusivity





Image: Shovel the Ramp (Giangreco & Ruelle, 2002)

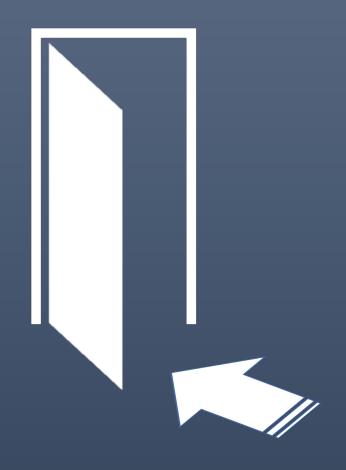
"Could you please shovel the ramp?"

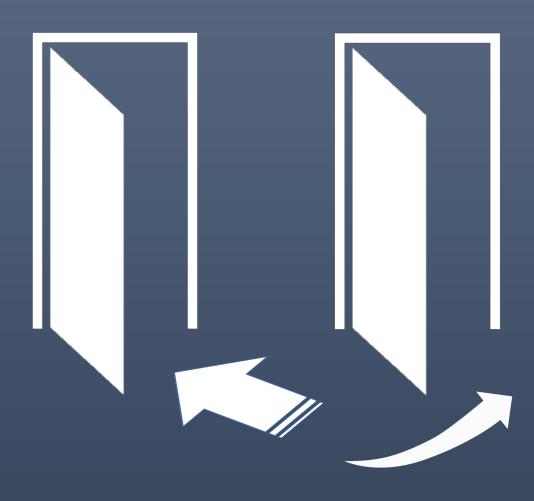
"All the other kids are waiting to use the stairs. When I get through shoveling them off, then I will clear the ramp for you."

"But, if you shovel the ramp, we can all get in!"

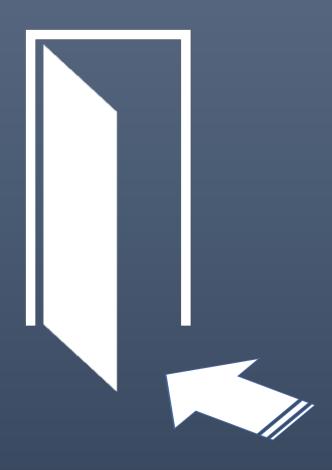
ACCOMMODATION

MODIFICATION





ACCOMMODATION



What About the Students' Perspectives?





Image: The Hushme voice muffler (Dormehl, 2017)



Image: The Magic School Bus (Scholastic, 2020)

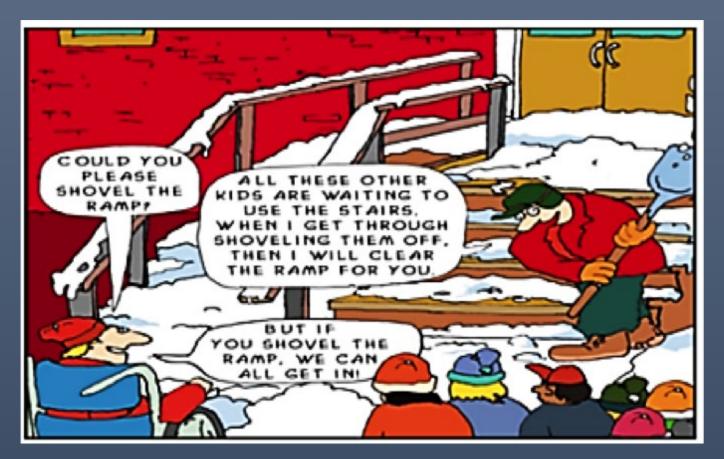
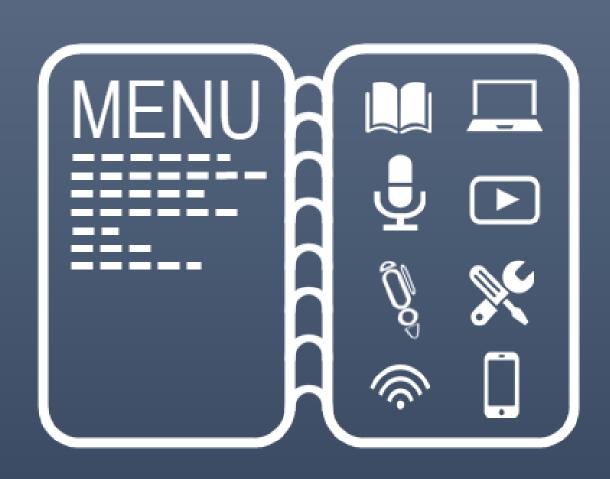


Image: Shovel the Ramp (Giangreco & Ruelle, 2002)









Strategies to Promote Inclusivity with Technology



DIGITAL ACCESSIBILITY CHEAT SHEET

Easy strategies to increase Digital Accessibility for documents and online content created by students, instructors, and instructional designers.



HEADINGS

Do not manually alter font, sizes, or colors, to create headings

Use the formatting toolbar in your word processor or web editor to tag your headings as "Heading 1," "Heading 2," "Heading 3," etc., and your main text as "Paragraph." This will allow digital screen reader applications to navigate your document or web content using a keyboard or digital switch.



IMAGES

Do not embed text within an image. It is not machine readable, so it is not accessible.

If the image is purely decorative, check the "Mark as Decorative" option when inserting it. Digital screen reader applications will ignore it.

If the image contains important content, include ALT text. Add a sentence or two that describes the image for visually impaired audiences.



COLOR

Do not rely on color to convey important messages. Some audiences may not be able to distinguish the different colors for a variety of reasons.

Use a strong contrast between the color of your text and your background. When in doubt, stick to black and white.



VIDEO CAPTIONS

Many users may not be able to hear the narration in videos you choose or create to add to your course or web-based content. Many other users frequently choose to watch videos with the sound turned off.

Make sure you select videos that have Closed Captions available.

Use your video editor or YouTube's closed captioning tools to add captions to your own



LEARNING MATERIALS



PROVIDE "LOW-TECH" (PRINT) ALTERNATIVES



FIND EXISTING MEDIA RESOURCES



PRE-RECORD NEW MATERIALS

DON'T REINVENT THE WHEEL IF YOU DON'T HAVE TO. FIND AND SHARE EXISTING RESOURCES (ADD COMMENTARY IF NECESSARY). AND PROVIDE BOTH LOW AND HIGHER-TECH ALTERNATIVES.

COMMUNICATIONS



PRINTABLE (OR MAILABLE) SUMMARY COMMUNICATIONS



SHARE A PHONE NUMBER AND TIMES WHEN YOU'LL MAKE OR ACCEPT CALLS



USE "LIVE" ONLINE TIME COLLABORATIVELY

DON'T WASTE YOUR SCARCE "LIVE" CONNECTION TIME PRESENTING NEW MATERIAL. THAT CAN BE DONE WITH SHARED MATERIALS. INSTEAD, USE "LIVE" TIME TO CONNECT, ANSWER QUESTIONS, TROUBLESHOOT, AND ENGAGE IN COLLABORATIVE GROUP ACTIVITIES. BE SURE TO PROVIDE BOTH LOW AND HIGH-TECH WAYS TO CONNECT.

ASSESSMENTS & FLEXIBILITY



MULTIPLE WAYS TO COMPLETE AND SUBMIT



USE AUTHENTIC, PROBLEM-BASED ASSESSMENTS



PROVIDE FLEXIBILITY WITH TIMELINES

EMPATHY, ENGAGEMENT, AND AUTHENTICITY ARE KEY. USE AUTHENTIC, PROBLEM-BASED ASSESSMENTS RATHER THAN SIMPLE TESTS. AND UNDERSTAND THAT NOT ALL STUDENTS WILL HAVE THE TOOLS OR CONNECTIVITY TO COMPLETE HIGH-TECH ASSESSMENTS, OR THE SAME TIME AVAILABLE (ESPECIALLY IF THEY ARE WORKING OR CARING FOR FAMILY AT HOME).



DIGITAL ACCESSIBILITY CHEAT SHEET

Easy strategies to increase Digital Accessibility for documents and online content created by students, instructors, and instructional designers.



HEADINGS

Do not manually alter font, sizes, or colors, to create headings.

Use the formatting toolbar in your word processor or web editor to tag your headings as "Heading 1," "Heading 2," "Heading 3," etc., and your main text as "Paragraph." This will allow digital screen reader applications to navigate your document or web content using a keyboard or digital switch.



IMAGES

Do not embed text within an image. It is not machine readable, so it is not accessible.

If the image is purely decorative, check the "Mark as Decorative" option when inserting it. Digital screen reader applications will ignore it.

If the image contains important content, include ALT text. Add a sentence or two that describes the image for visually impaired audiences.



COLOR

Do not rely on color to convey important messages. Some audiences may not be able to distinguish the different colors for a variety of reasons.

Use a strong contrast between the color of your text and your background. When in doubt, stick to black and white.



VIDEO CAPTIONS

Many users may not be able to hear the narration in videos you choose or create to add to your course or web-based content. Many other users frequently choose to watch videos with the sound turned off

Make sure you select videos that have Closed Captions available.

Use your video editor or YouTube's closed captioning tools to add captions to your own videos.





Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore

Heading Two

Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.

HEADINGS

Do not manually alter font, sizes, or colors, to create headings.

Use the formatting toolbar in your word processor or web editor to tag your headings as "Heading 1," "Heading 2," "Heading 3," etc., and your main text as "Paragraph." This will allow digital screen reader applications to navigate your document or web content using a keyboard or digital switch.

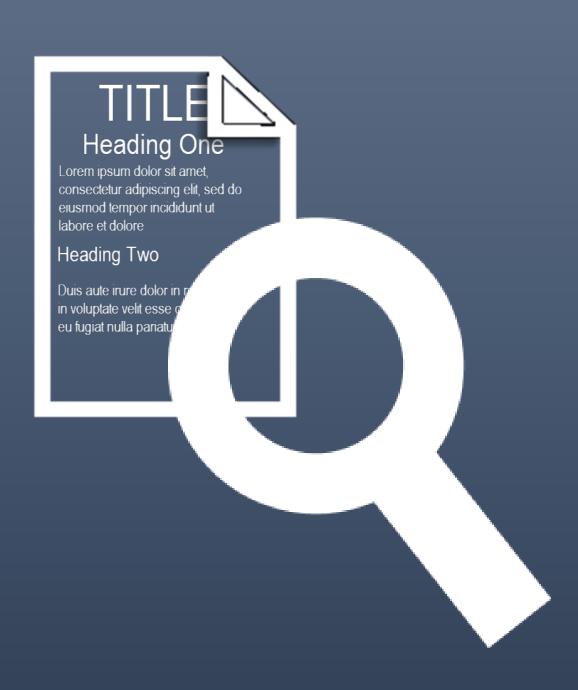
IMAGES



Do not embed text within an image. It is not machine readable, so it is not accessible.

If the image is purely decorative, check the "Mark as Decorative" option when inserting it. Digital screen reader applications will ignore it.

If the image contains important content, include ALT text. Add a sentence or two that describes the image for visually impaired audiences.





HOW-TO DEMONSTRATION



COLOR

Do not rely on color to convey important messages. Some audiences may not be able to distinguish the different colors for a variety of reasons.

Use a strong contrast between the color of your text and your background. When in doubt, stick to black and white.



HOW-TO DEMONSTRATION

Colour Contrast Analyzer (CCA) (The Paciello Group, n.d.) https://developer.paciellogroup.com/resources/contrastanalyser/



VIDEO CAPTIONS

Many users may not be able to hear the narration in videos you choose or create to add to your course or web-based content. Many other users frequently choose to watch videos with the sound turned off.

Make sure you select videos that have Closed Captions available.

Use your video editor or YouTube's closed captioning tools to add captions to your own videos.



HOW-TO DEMONSTRATION

THANK-YOU POWERLEARNINGSOLUTIONS.COM

References

ClipartXtras (n.d.). Chalkboard. [Image file]. https://clipartxtras.com/categories/view/de245518959d7fb4318c464ae3016506010232ea/chalkboard-clipart-transparent.html

Described and Captioned Media Program (2018). Caption It Yourself. [Web page]. https://dcmp.org/learn/213

Dormehl, L. (2017, May 11). Be the Bane of eavesdroppers with Hushme, a mask that muffles private calls. [Web log post]. *Digital Trends*. https://www.digitaltrends.com/cool-tech/husme-hands-free-acoustic-muffling/

Giangreco, M., and Ruelle, K. (2002). Shovel the Ramp. [Image File]. https://i.pinimg.com/originals/41/30/bf/4130bfbc91e95ad1fc42a5540e6ab909.png

Kisspng (2019). Chalkboard eraser. [Image file]. https://www.kisspng.com/png-chalkboard-eraser-blackboard-sidewalk-chalk-2228618/download-png.html

The Paciello Group (n.d.). Colour Contrast Analyzer (CCA). [Web page]. https://developer.paciellogroup.com/resources/contrastanalyser/

PlusPNG (2019). Regular Zombie. [image file]. http://pluspng.com/png-7866.html

Power, R. (2018, June 6). Accessibility in Online Teaching and Learning. [Web log post]. *Power Learning Solutions*. https://www.powerlearningsolutions.com/blog/accessibility-in-online-teaching-and-learning

Power. R. (2019, February 5). The Zombie of Instructional Design and Teaching: Learning Styles. [Web log post]. *Power Learning Solutions*. https://www.powerlearningsolutions.com/blog/the-zombie-of-instructional-design-and-teaching-learning-styles

Power, R. (2020, February 13). Helping Everyone Access Your Online Learning Resources. [Web log post]. *Power Learning Solutions*. https://www.powerlearningsolutions.com/blog/helping-everyone-access-your-online-learning-resources

Scholastic (2020). The Magic School Bus. [Web page]. https://kids.scholastic.com/kids/books/the-magic-school-bus/