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Accessibility Dividend: Learning that Leaves No One Behind in a Post-pandemic World of Higher Education

davidberman.communicaions



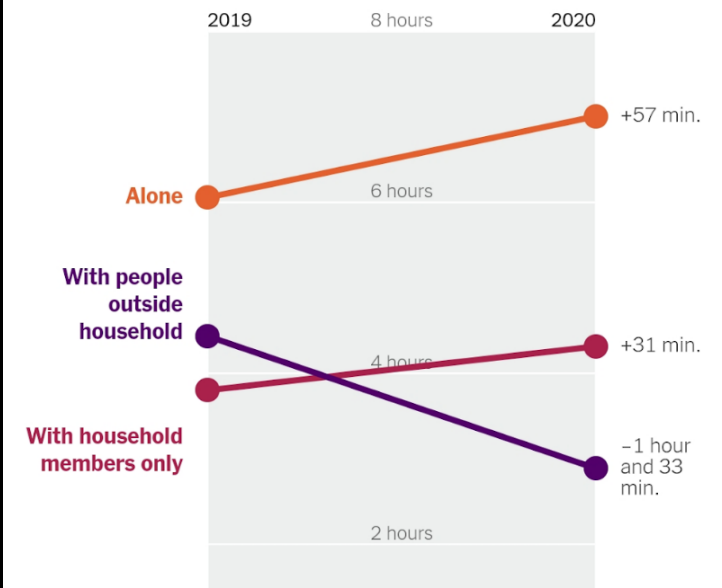
@davidberman @explorance

The Pandemic Changed How We Spent Our Time

By [Ben Casselman](#) and [Ella Koeze](#) July 27, 2021

A lonely year

Average time spent per day during waking hours, May through December in 2020 vs. 2019



Expert Speaker


David Berman, CPWA, CPACC, WAS

Every link I mention is available for you to launch at:


<http://www.davidberman.com/accessibilitylinks>

...or at this QR Code:



 facebook.com/davidbermancommunications

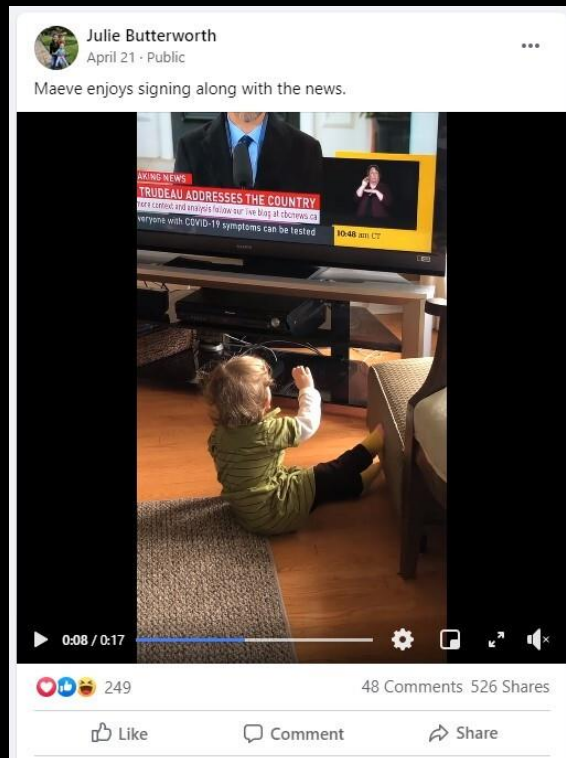
 linkedin.com/in/bermandavid

 twitter.com/davidberman



Covid-19 has silver linings

The common enemy has made us stronger.



```
Maeve-ASL-along-with-Justin-Trudeau-Covid.vtt - N
File Edit Format View Help
WEBVTT

00:00:00.000 --> 00:00:03.000 align:m
[inaudible] increasing our contributi

00:00:03.000 --> 00:00:05.900 align:m
in order to deal with this pandemic.

00:00:06.000 --> 00:00:09.900 align:m
We fund them to the tune of tens of m

00:00:10.000 --> 00:00:12.300 align:m
At the same time we do need to find

00:00:12.400 --> 00:00:14.400 align:m
answers to how this happened so

00:00:14.500 --> 00:00:16.500 align:m
we understand how to...

Ln 16, Col 32 100%
```

Pandemic's silver linings for the classroom: **remote** learning vs. **distance** learning

Courses benefitted from being forced online.

Many students benefit when they can choose:

- when to learn
- pace of learning
- watch again
- customized modes



Your first week in higher ed: David in Carleton University's tunnels



2018: Carleton Access Network



Joey, Grad '17

[Learn More About Grad Certs](#) ▶

- NEWS
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- FEATURES
- OPINIONS
- ARTS
- SPORTS
- BLOGS
- MULTIMEDIA

FORMER STUDENT RETURNS TO CAMPUS AS HEAD OF IT ACCESSIBILITY INITIATIVE

[November 29, 2012](#) | [Haley Ritchie](#) |



1984: Ottawa



The Charlatan

NOVEMBER 24, 1983

CARLETON'S WEEKLY NEWSMAGAZINE

VOLUME 13, NUMBER 15

THREE WISE MEN



Ronald: Peace in our time Margaret: A damn fine lady Brian: A hope for the future

DEAR MR. BRINER

ANARCHY NOW !!

THE CHARLATAN COVER STORY HAS BEEN
INTRODUCED BY DE-PRESS OF THE
SILENT LIBERATION ARMY. PRINT EVERYTHING
JUST AS IT IS. YOUR PRINTING PRESS IS
WRECKED AND BESIDES, WE HAVE YOUR 16-YEAR-
OLD DAUGHTER, TAWNT, AND YOUR DOG MUFFIN.
WE WOULD NOT WANT ANYTHING NASTY TO
HAPPEN TO THEM. CUPIC GARDIOL KAPESH?
F.S. WE'RE NOT LYING,
NESTER EXTORTIONIST
MEMBER OF THE TRUE
PUBLIC WILL!!!!!!!

Sid Somoza
GTA

EXCLUSIVE INTERVIEWS

see pages 12-13

IMASH
THE
ESTABLISHMENT !!!

... appears as though he's about to blow the whistle on
... of Late Night
... Comedy at the GCTC.
... in the
... of the
... we did. He
... improve
... in converted
... quite well
... of com
... the show
... in the
... first
... days he
... per
... hand
... involved
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... and a
... own
... long with
... The ac
... timent
... on why
... giving
... a team
... of all
... will need to
... of score
... where the
... any par
... standards
... plition,
... willed per
... League
... and Theatre
... began
... in their pre
... good again
... of all kinds
... of established
... hole now
... that perhaps
... interested in
... theatre. He
... of the
... as such as
... he believes
... give
... the games
... the 1970s.
... Theatre
... films from
... organized
... the 1980s
... included
... the year
... Public Ad
... of the Com
... Second
... a community
... effort. It's not based solely on the whims
... of the director, nor on the concepts of a
... playwright, but a cooperative effort bet
... between the audience and the actors.
... Whatever it is, Friday night's Late
... Night Comedy is an excellent alternative
... to the late night movie. It's spontaneous,
... unpredictable and very, very funny. The
... laughs didn't stop coming... for fear of
... you'll think I'm
... as an act
... during
... sessions.
... if in theatre

Charlatan

983

ver 15

Jim Davidson

Debra Ann Yao
Ken Magor
Steve Mazzy
Kim Carter
Rob Ferguson
Bethany Keedy
Marka Kyriakidis
Inese Maruško
Patrick Mahai
Mark Nicholson
Andrea Prazmowski
Alisa Priddle
Laurel Sherrin
Bonnie Sullivan
Sharon Smith
Chris Wattie

Jan Antoniak
Mark Czeszki
Jeff Hale
Todd Hambleton
Jeff Henry
Shelley Ireland
Ken Jamyn
Christopher Johnson
Roger Theriault

Stephen Lee
Laureen Murray
Laslow Duke
Peter Laune

Randy Cantora
Angela Barker
Mark Foss
Aniela Friedmann
Iartha Muzychka
Louis Tesser

Armel Schreyer
David Thorpe
Sasa Petrivic
Tom Hallemann
Jeff Langille
Elio Mendonca
Melanie Pearce
Ale Boss
Ross Weatherly
Tim Wickens

CTION
David Berman
Cedric Foon
David Cox
Tina Gomez
Paul Gross
Sten St-Germain
Betty Dymond
Wayne Barclay
Bill Hurck
Karen Loko
Henry Sporn
Louis Tessier
Dan Lett

479
Ila Kuzmiski
Sharon Smith
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NEWS

CUSA, Kinsella taking legal action

by Ken Magor

CUSA AND ITS PRESIDENT, WARREN Kinsella, are taking separate legal action against Women's Centre lawyer Joseph Magnet and CJOH-TV for comments allegedly made by Magnet in one of the station's news reports.

Notices have been served to both parties under the Libel Act complaining of the supposedly defamatory remarks and warning that lawsuits may be launched.

However, Kinsella said what he and the students' association are really seeking is an apology "to ensure that the situation is corrected."

Kinsella said CUSA members, and he in particular, were slandered by comments made by Magnet in the Oct 12 news report. Magnet referred to CUSA's handling of its review of the Women's Centre and attributed to Kinsella remarks the president

did not make. Kinsella said when he saw the broadcast he "just about fell off my chair."

Magnet said he is "not worried" by the legal action. "I'd be perfectly happy in court to substantiate the full range of remarks that Warren did or did not make," the lawyer said. "I'm sure the Carleton students would be happy to know what their government did or did not do with respect to the

Women's Centre." Meanwhile, CJOH confirmed it has also been served under the Libel Act. Kinsella said his own legal action is being underwritten by his father while CUSA's is being paid out of students' association funds.

However, he added that so far legal fees would likely not amount to much "because our contact with the lawyers has been very minimal."

The actions are the latest chapter in a dispute which stretches back to this past summer. The Women's Centre had complained when it was put under review, and part of its budget was frozen. The conflict erupted again last month when the centre threatened legal action and hired Magnet to defend their interests.

Unions asked to vacate Unicentre

by Andrea Prazmowski

THE PRESIDENT OF CARLETON HAS asked two of the unions on campus to move out of their offices on the fifth floor of the Unicentre.

The unions' lease on room 501 does not expire until July 1, 1984, but President William Beckel has asked them to leave "as early as possible."

The president of the students' association Warren Kinsella said Beckel has agreed to give the rooms to CUSA because of a deal made in July.

But the switch could take longer than anticipated, because the unions have rejected Beckel's offer of alternate office space in the Residence Commons.

Room 501 is controlled by the university administration and is shared by CUPE locals 2323 and 2424, which represent Carleton's teaching assistants and support staff, and the Coordinator of the Program for the Disabled.

Kinsella said Beckel agreed to give the offices to the students' association on the condition CUSA find room for the Disabled Coordinator.

The deal was made after the university decided to take over the Arts and Crafts workshops on the third floor of the Unicentre. In exchange for giving up the space, Kinsella said Beckel promised him part of the Arts and Crafts area, plus room 501. At that time, Beckel said CUSA should have control of the room by January 1984.

Business manager for CUPE 2323, Morna Ballantyne, said after the unions learned of Beckel's intentions "through a leak" at the end of the summer, the president confirmed the information and a meeting was held.

Ballantyne said the unions are willing to move out before July 1984 if Beckel meets certain conditions. According to the collective agreement, the unions



PHOTO: DAVID THORNE

CUPE 2424 business agent Stuart Ryan says his union will be meeting with President William Beckel on Tuesday to talk about the space situation on campus that has the union slated to move its office from the Unicentre to Res Commons. The union doesn't want to move.

of the 900 square feet of space will not mean a re-opening of negotiations carried on in September by the other groups using the Unicentre. "They all have the space they need," he said, "and I don't think any of them will be coming to us for more."

"I can understand some of their concerns about being away from the centre of the university," said Kinsella. "But I

rejected the offer. They say the room is not accessible enough for the 600 support staff and 700 TA's, most of whom work near the centre of the campus.

Beckel has said he does not have any other room available, but he will keep looking. CUPE 2424 business agent Stuart Ryan said the unions will meet

of space for its offices and drop-in centre, he said.

The Services Review Committee (SRC) of CUSA is now assessing CUSA's needs and services. SRC Chairman David Plewes said the group could have more

Post WW2 University of Illinois puts curb cuts on campus



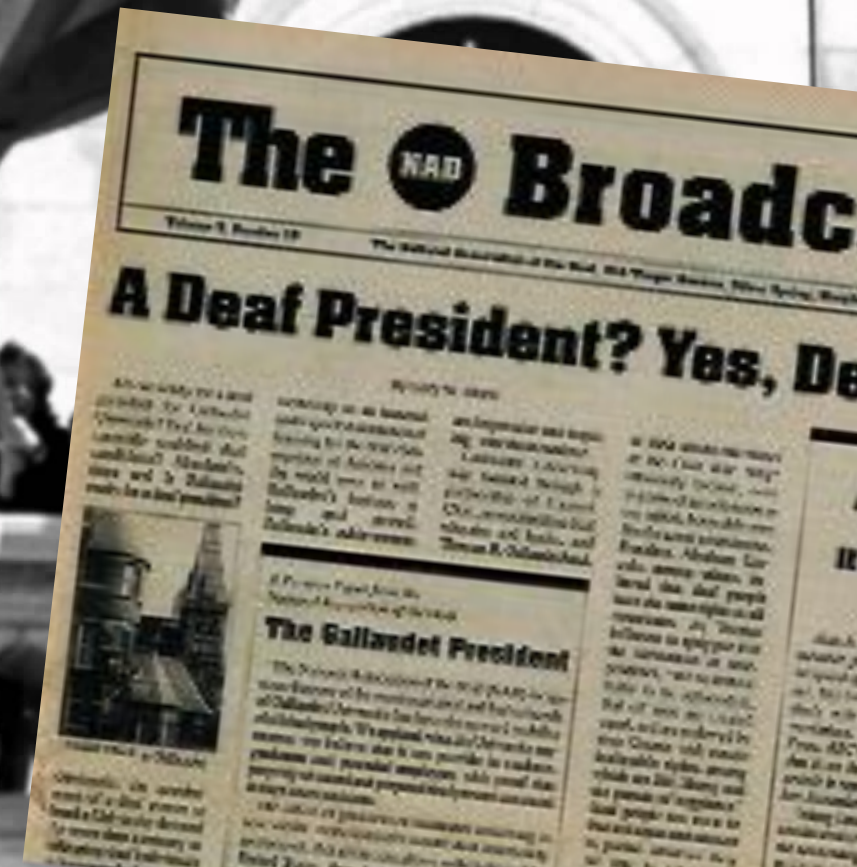
1971: UC Berkeley students get their city to install curb cuts



1977: "504 Sit Ins" across America



1988: Gallaudet University



1990: Washington



aster
afinitely!
Deal President for Gallaudet
Time, Isn't It?
By Dr. Alan S. Coerman, '82

100TH CONGRESS
2d Session

S. 2345

To establish a clear and comprehensive prohibition of discrimination on the basis of handicap.

IN THE SENATE OF THE UNITED STATES

APRIL 28, 1988

Mr. WEICKER (for himself, Mr. HARKIN, Mr. SIMON, Mr. STAFFORD, Mr. KENNEDY, Mr. DOBBS, Mr. MATSUNAGA, Mr. CHAFET, Mr. KERRY, Mr. PACKWOOD, Mr. LEAHY, Mr. INOUE, Mr. CRANSTON, and Mr. DOLE) introduced the following bill: which was read twice and referred to the Committee on Labor and Human Resources

A BILL

To establish a clear and comprehensive prohibition of discrimination on the basis of handicap.

1 Be it enacted by the Senate and House of Representa-
2 tives of the United States of America in Congress assembled,
3

4 SECTION 1. SHORT TITLE.

5 This Act may be cited as the "Americans with Disabil-
6 ities Act of 1988".

7 SEC. 2. FINDINGS AND PURPOSES.

8 (a) FINDINGS.—Congress finds that—

1999: WCAG

Web Content Accessibility Guidelines

TRACE R&D Center at the
University of Wisconsin

[\[contents\]](#) [\[checklist\]](#)



Web Content Accessibility Guidelines 1.0

W3C Recommendation 5-May-1999

This version:

<http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990505>
([plain text](#), [PostScript](#), [PDE](#), [gzip tar file of HTML](#), [zip archive of HTML](#))

Latest version:

<http://www.w3.org/TR/WAI-WEBCONTENT>

Previous version:

<http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990324>

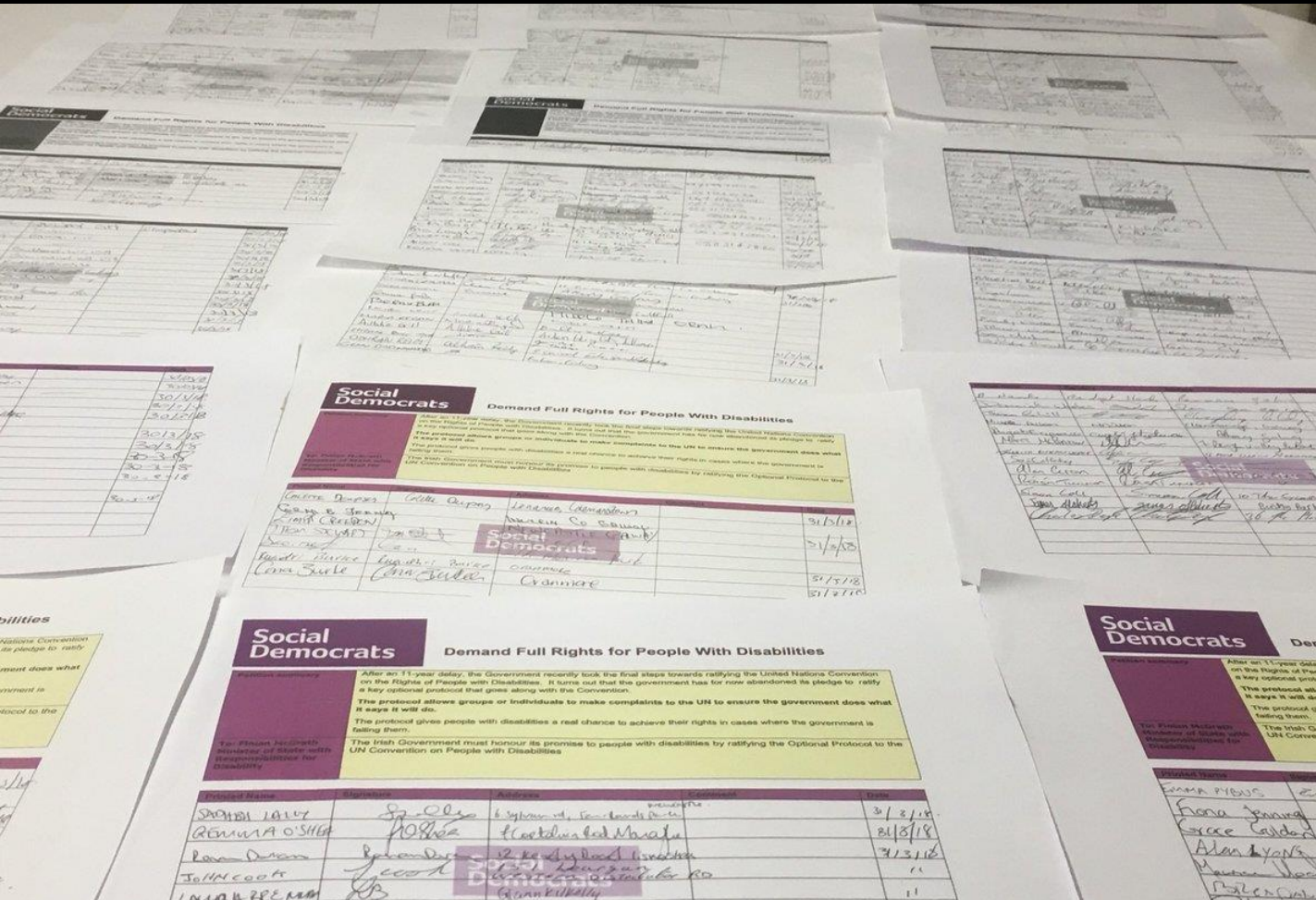
Editors:

Wendy Chisholm, [Trace R & D Center](#), University of Wisconsin -- Madison
Gregg Vanderheiden, [Trace R & D Center](#), University of Wisconsin -- Madison
Ian Jacobs, [W3C](#)



2006: UN Convention on the Rights of Persons with Disabilities

- 163 signatories



2010: Washington



OFFICE OF THE CLERK OF THE HOUSE OF REPRESENTATIVES
U.S. GOVERNMENT PRINTING OFFICE: 2010
GPO

PUBLIC LAW 111-274—OCT. 13, 2010

124 STAT. 2861

Public Law 111-274
111th Congress

An Act

To enhance citizen access to Government information and services by establishing that Government documents issued to the public must be written clearly, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Oct. 13, 2010
[H.R. 946]

Plain Writing Act of 2010.
5 USC 301 note.

5 USC 301 note.

SECTION 1. SHORT TITLE.
This Act may be cited as the “Plain Writing Act of 2010”.

SEC. 2. PURPOSE.
The purpose of this Act is to improve the effectiveness and accountability of Federal agencies to the public by promoting clear Government communication that the public can understand and use.

SEC. 3. DEFINITIONS.
In this Act:

(1) **AGENCY.**—The term “agency” means an Executive agency, as defined under section 105 of title 5, United States Code.

(2) **COVERED DOCUMENT.**—The term “covered document”—

(A) means any document that—

(i) is necessary for obtaining any Federal Government benefit or service or filing taxes;

(ii) provides information about any Federal Government benefit or service; or

(iii) explains to the public how to comply with a requirement the Federal Government administers or enforces;

(B) includes (whether in paper or electronic form) a letter, publication, form, notice, or instruction; and

(C) does not include a regulation.

(3) **PLAIN WRITING.**—The term “plain writing” means writing that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience.

SEC. 4. RESPONSIBILITIES OF FEDERAL AGENCIES.

(a) **PREPARATION FOR IMPLEMENTATION OF PLAIN WRITING REQUIREMENTS.**—

(1) **IN GENERAL.**—Not later than 9 months after the date of enactment of this Act, the head of each agency shall—

(A) designate 1 or more senior officials within the agency to oversee the agency implementation of this Act;

5 USC 301 note.

Deadline.

Designation.

2015: European Union





Prime Minister
Justin Trudeau

2019: Accessible Canada Act

“Every day, let us take action to break down the barriers that exclude Canadians with disabilities. We cannot rest until persons with disabilities have the same opportunities as everyone else.”

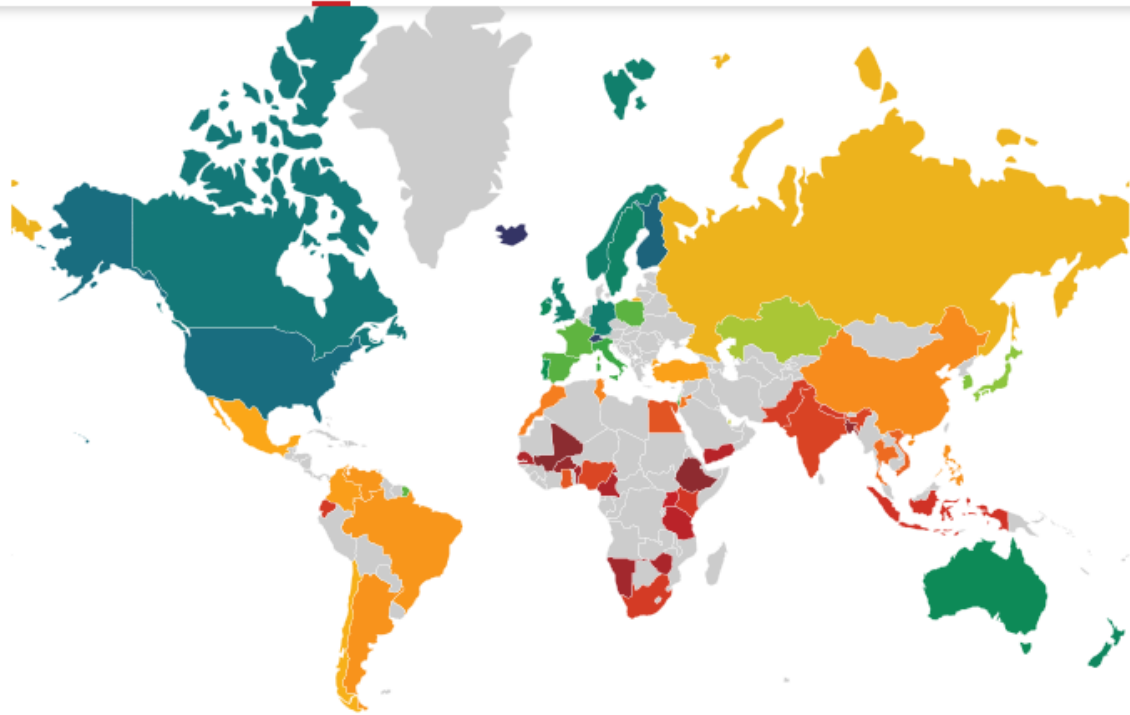
Leadership: Canada



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WEBINDEX Weighting

IMPACT

READINESS

THE WEB

Web Content

Web Use

- Percentage Of Individuals Using The Internet
- Web Use By Illiterate People
- Web Use By People Susceptible To Seizures
- Web Use By The Elderly
- Web Use By Those With Hearing Disability
- Web Use By Those With Learning Disabilities
- Web Use By Those With Visual Disability

- 15: To what extent does the government provide e...
- 16: To what extent does the government provide e... stresses?
- 17: To what extent do business associations or ag... government and/or other sources on the Web...

9 Accessibility

- 18: To what extent is Web accessibility (access to...
- 19: To what extent is Web accessibility (access to... developers?
- 20: To what extent is there a law or other legally bi... various disabilities?
- 21: This question is to allow us to send informatio... addresses of 1) the websites of the country's 2... telecommunications providers, 4) the national... welfare department, and 6) if it exists, the main...


10 Open Data

- 22: To what extent is there a well-resourced open...
- 23: To what extent does the country have a function...
- 24: To what extent are civil society and information...
- 25: To what extent is a user community utilizing a...

Made in Canada: OCAD University

← → × idrc.ocad.ca

↻ RESET



inclusive design research centre
OCAD University

→ **Home**

About

Research and Development

Resources

Education

Welcome to the IDRC

The IDRC is a research and development centre at OCAD University where an international source developers, designers, researchers, advocates, and volunteers work together to information technology and practices are designed inclusively. [Learn more about the IDRC](#)

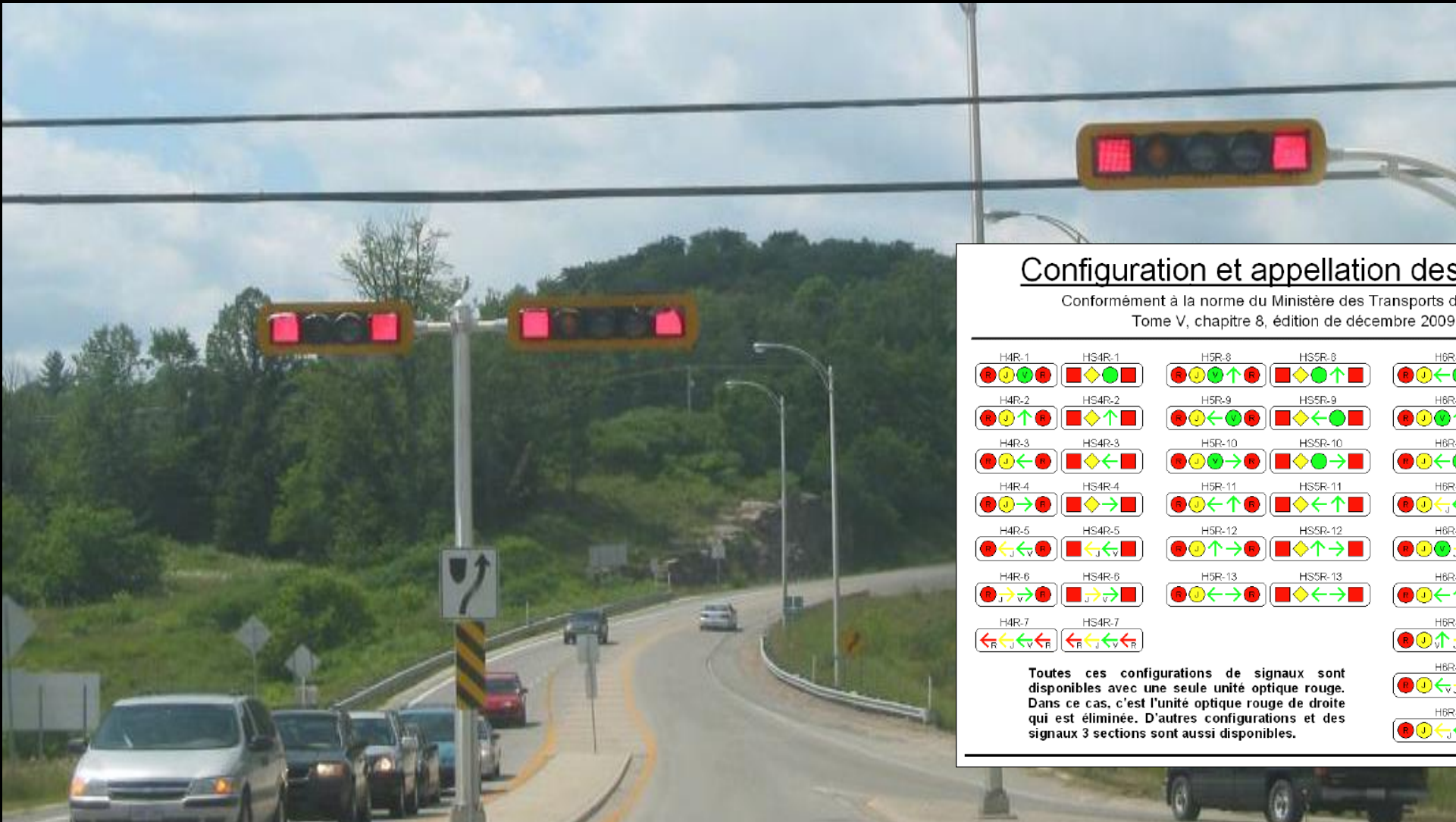
The Three Dimensions of Inclusive Design

The Inclusive Design Research Centre and the MDes in Inclusive Design are working to

Colorblind = life + death

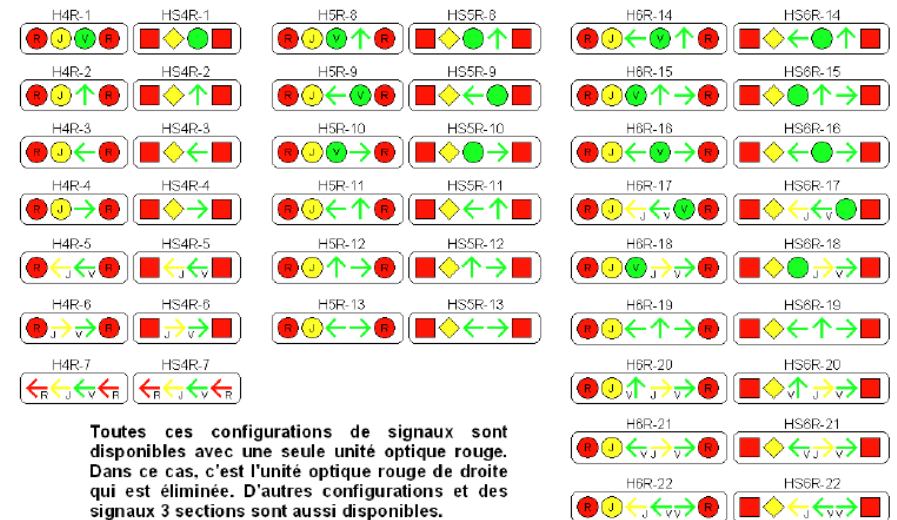


Multiple means solution from Quebec: hue + shape + how many



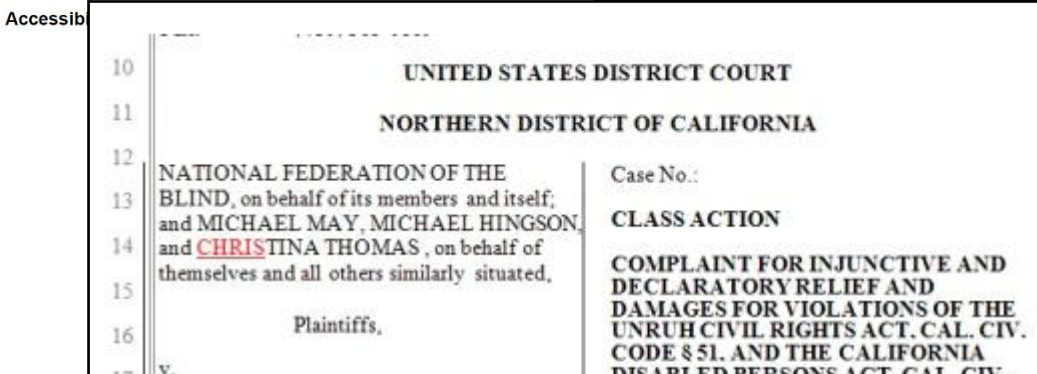
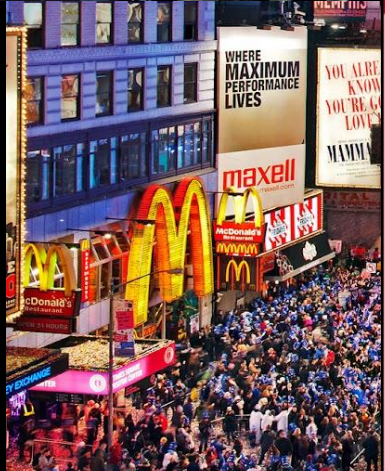
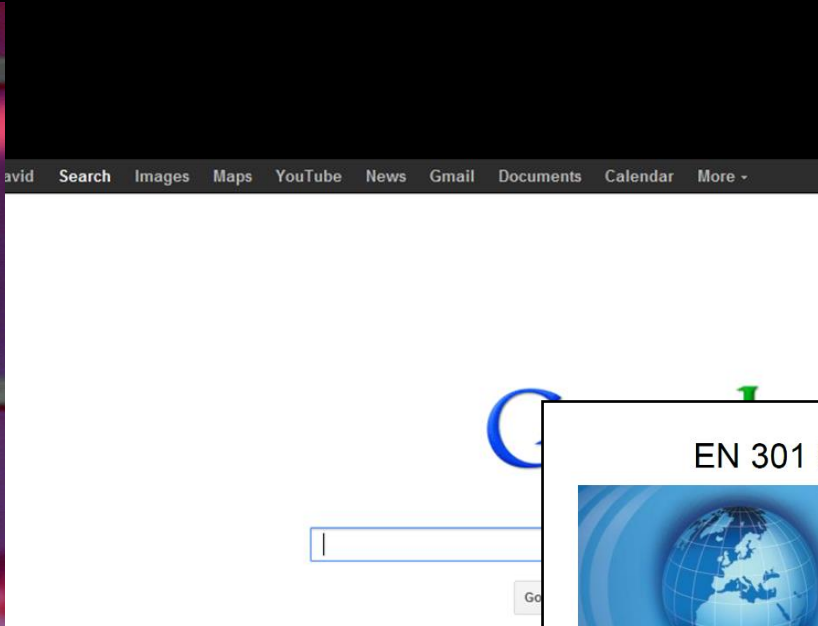
Configuration et appellation des signaux

Conformément à la norme du Ministère des Transports du Québec
Tome V, chapitre 8, édition de décembre 2009



Toutes ces configurations de signaux sont disponibles avec une seule unité optique rouge. Dans ce cas, c'est l'unité optique rouge de droite qui est éliminée. D'autres configurations et des signaux 3 sections sont aussi disponibles.

Six reasons to care about accessibility



2021: legal expectations are shifting

Defendants with lawsuits brought against them recently:

- Bank of America
- BMI
- Connecticut Attorney General
- Domino's Pizza
- Government of Canada
- Harvard University
- MIT
- NBA
- Netflix
- Penn State University
- Priceline
- Ramada
- Reebok
- Southwest Airlines
- Target
- United Airlines

Airline faces legal action for having inaccessible website for blind users
February 1, 2012 By Kevin May

Beyoncé's Parkwood Entertainment sued over website accessibility
A lawsuit claims beyonce.com violates the Americans With Disabilities Act by failing to accommodate visually impaired users



The Washington Times
POLITICS
Prosecutors defend search of Manafort...
HOME \ CULTURE
Berkeley removing 20K free videos after DOJ ruling, closed-captioning com



SECTIONS
In Eric Garner Case, Judge Rules Against Releasing Grand Jury Evid...
EDUCATION
Harvard and Captions
By TAMAR LEWIN FEB. 12, 2015
Email



CNBC
POLITICS
Supreme Court hands victory to blind man who sued Domino's over site accessibility
PUBLISHED MON, OCT 7 2019-9:40 AM EDT
UPDATED TUE, OCT 8 2019-6:31 PM EDT
Tucker Higgins
@IN/TUCKER-HIGGINS-5B162295/
@TUCKERHIGGINS
SHARE f t in

2018

Section 508 now points to WCAG 2.0 AA

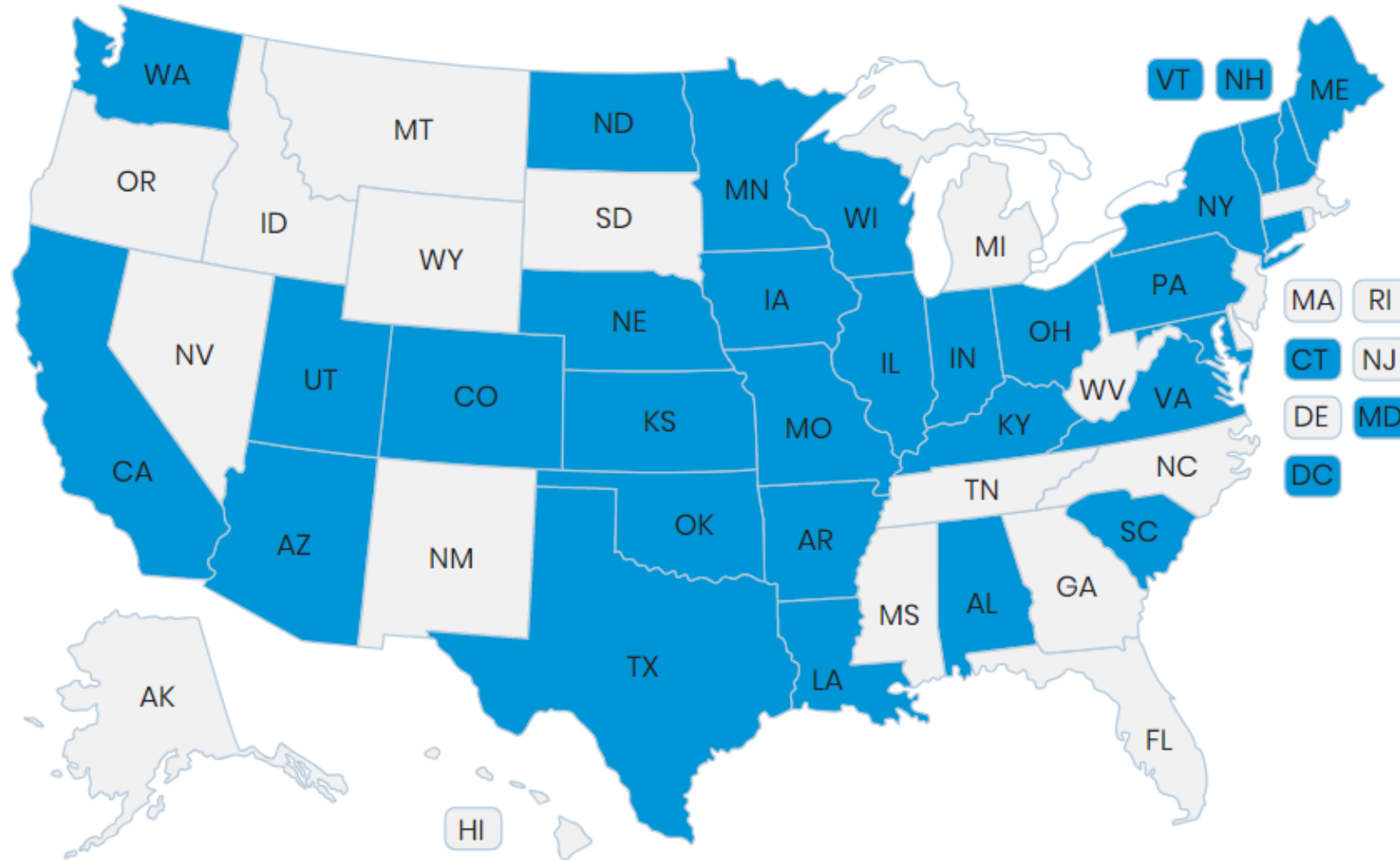


“The Section 508 Refresh”: The U.S. Access Board (the independent federal agency that stewards Section 508) refreshed Section 508 in early 2017.

The final rule updated **Section 508** (and Section 255, which is about access to telecommunications products and services, and applies to manufacturers of telecommunication equipment) to **WCAG 2.0 AA**.

- Why? To harmonize with other guidelines and standards within the U.S. and abroad (EU, WCAG)
- Effective March 20, 2017
- Deadline was **January 18, 2018**

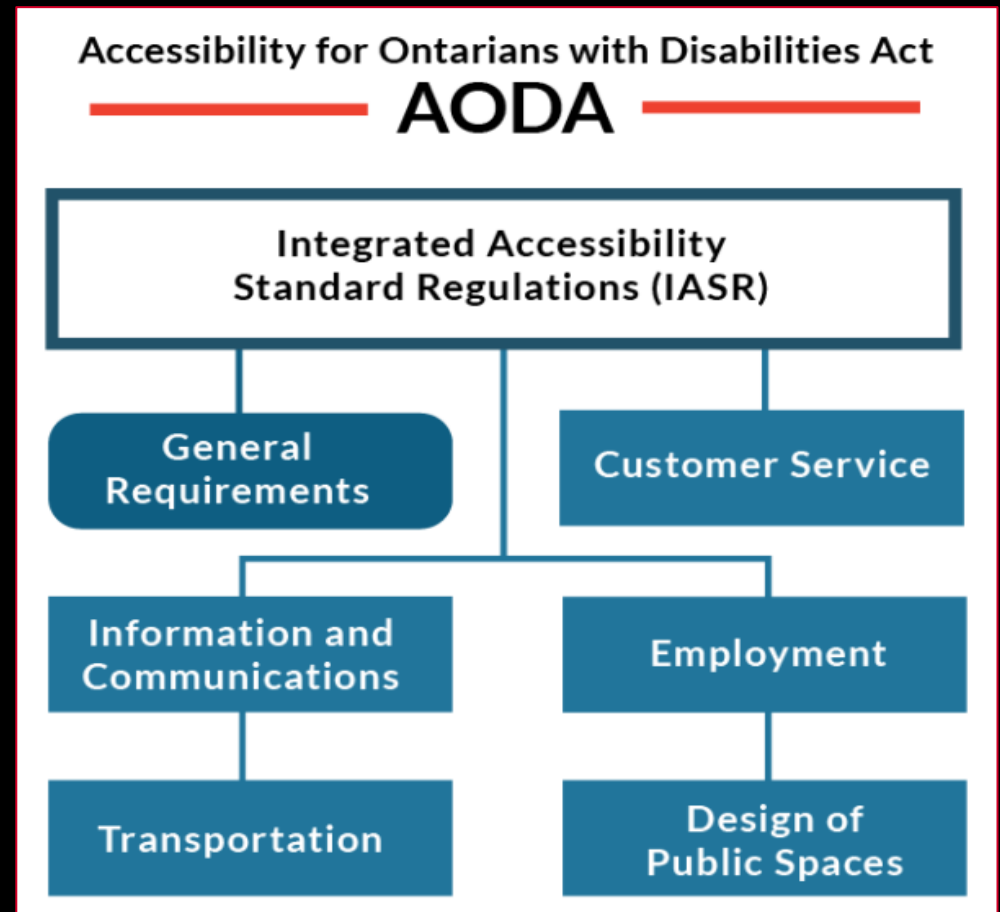
Most states have eAccessibility laws as well



AODA: Ontario's accessibility legislation



Accessibility for Ontarians with Disabilities Act (2005) pertains to both government and private sector



WCAG 2 as a legal standard trending *globally*

| | | | |
|----------------------|----------------------------------|------------------|------------|
| Canada govt. | CLF 2.0 | WCAG 1.0 | 2001 |
| Canada govt. | Standard on Web Accessibility | WCAG 2.0 AA | 2011 |
| Ontario govt. + bus. | AODA IASR | WCAG 2.0 A/AA | 2012-2021 |
| Quebec govt. | SGQRI 008 | ~WCAG 2.0 | 2011 |
| Manitoba | Accessibility for Manitobans Act | WCAG 2.0 A/AA | 2023? |
| USA, NY govt. | Original Section 508 | WCAG 1.0 partial | 1973, 1998 |
| USA govt. | Revised Section 508, ADA | WCAG 2.0 AA | 2017/2018+ |
| Illinois govt. | IITAA 2.0 | WCAG 2.0 AA | 2018 |
| Australia govt.+bus. | IPS/NTS | WCAG 2.0 A/AA* | 2012-2014 |
| EU | WAD, EN 301 549, EAA | WCAG 2.0/2.1 AA | 2018+ |
| UKEquality Act 2010 | PSBAR | WCAG 2.1 AA | 2018+ |
| Norway govt.+biz | UU plus WAD | WCAG 2.0 AA | 2014,2021? |
| New Zealand govt. | NZGWS 2.0 | WCAG 2.1 AA | 2021 |



WCAG 2 success criteria



W3C's WAI (Web Accessibility Initiative) publishes
WCAG 2 (Web Content Accessibility Guidelines)
made up of 5 **conformance requirements**
including **success criteria**
classified by 3 **levels**
fulfilled by **techniques**



WCAG 2 "conformance levels"

(WCAG 2.0 published 2008, ratified 2010)

NOTHING

LEVEL **A**

LEVEL **AA**

LEVEL **AAA**

Worst ←

→ Best



- Without level **A**: some people will find it **impossible**
- Without level **AA**: some people will find it **difficult**
- Without level **AAA**: some people will **miss** full impact

For your product to be WCAG 2.0 Level AA compliant, you must meet all 25 WCAG 2.0 Level A and 13 WCAG 2.0 Level AA criteria (and *none* of the 23 WCAG 2.0 Level AAA criteria).

WCAG 2.1 "conformance levels"

(WCAG 2.0 published 2017, ratified 2018)

NOTHING

LEVEL **A**

LEVEL **AA**

LEVEL **AAA**

Worst ←

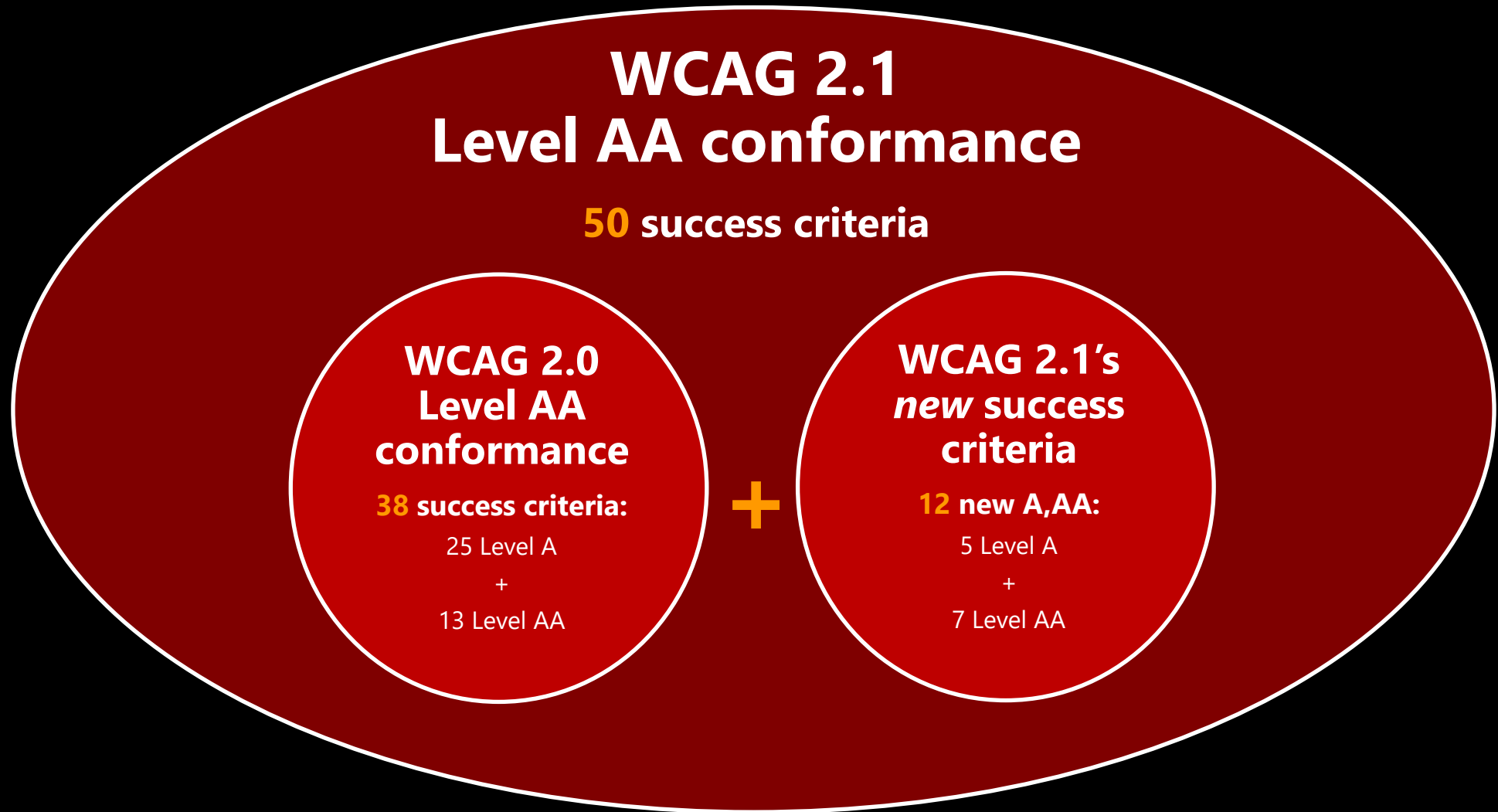
→ Best

- Without level **A**: some people will find it **impossible**
- Without level **AA**: some people will find it **difficult**
- Without level **AAA**: some people will **miss** full impact

For your product to be Level WCAG 2.1 AA compliant, you must meet all 30 WCAG 2.1 Level A and 20 WCAG 2.1 Level AA criteria (and none of the 28 WCAG 2.1 Level AAA)



WCAG 2.1 AA contains everything in WCAG 2.0 AA...plus 12 new success criteria



EU's EN 301 549, Web Accessibility Directive (WAD), and WCAG 2.1



- The European Union's norm **EN 301 549** is an evolving standard that defines minimum accessibility standards for ICT
- WAD first referenced ETSI EN 301 549 (2018): Version 2.1.2
- The current version of ETSI EN 301 549 (2019): Version 3.1.1
- Chapter 9 designates **WCAG 2.1 AA** as the standard for websites
- EU's Web Accessibility Directive law (WAD) demands that all EU countries have laws in place that require their obligated organizations to comply with EN 301 549 ... and every EU state did so by the September 23, 2018 deadline
- WAD demands compliance at the national government level (e.g., the government of Denmark), the regional government level (e.g., provincial governments in Belgium), and local government level (e.g., the town of Fisby).

Functional Performance Criteria of the EU's 301 549

- **Standard 4.2.1 Usage without vision**
- **Standard 4.2.2 Usage with limited vision**
- **Standard 4.2.3 Usage without perception of colour**
- **Standard 4.2.4 Usage without hearing**
- **Standard 4.2.5 Usage with limited hearing**
- **Standard 4.2.6 Usage without vocal capability**
- **Standard 4.2.7 Usage with limited manipulation or strength**
- **Standard 4.2.8 Usage with limited reach**
- **Standard 4.2.9 Minimize photosensitive seizure triggers**
- **Standard 4.2.10 Usage with limited cognition**
- **Standard 4.2.11 Privacy**

EN 301 549 going **global** (including WCAG 2.1)

Australia

Austria

Belgium

Bulgaria

Canada

Croatia

Cyprus

Czech Republic

Denmark

Estonia

Finland

France

Greece

Hungary

Iceland

Ireland

Italy

Latvia

Lithuania

Luxembourg

Malta

Mexico

Netherlands

New Zealand

Ontario

Poland

Portugal

Romania

Slovakia

Slovenia

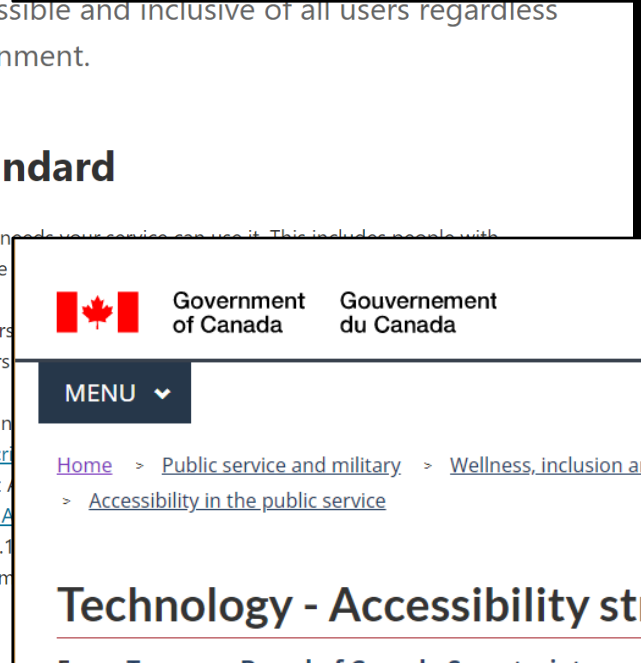
Spain

Sweden

Switzerland

United Kingdom

Coming soon to a country near you!



Reason 6: the "Accessibility Dividend"

By designing for both atypical and typical users we...

- drive down **maintenance costs**
- reduce "**form abandonment**" rates for all users
- Increase **conversion rates** for all
- Increase and benefit from a **Digital First** philosophy

Course Outline for Small Animal Clinical Procedures

Campus-wide strategies for universities, colleges, and school boards

We have many great stories to share about driving down costs by \$100,000s through a blend of inclusive strategy for courses, course outlines, instructor training, accessible convertible courseware, hybrid instructional design...

... but the pandemic has taught us way more.

Version Number:

Course Hours:

| Type of Hours | Number of Hours |
|---------------|-----------------|
| Class: | 30 |
| Lab: | 45 |
| Field: | 0 |
| Other: | 0 |
| Total: | 75 |

Co-Requisites: BIOL 201

Pre-Requisites: ANIM 101, ANIM 102, BIOL 104, ANIM 107, MATH 150

Prepared by Professor: Julie-Anne Valliant

Campus Dean/Associate Dean Signature of Approval: signature on file

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Accessibility dividend case study #1: Morphic Advisory Council

...from WCAG to Morphic

Gregg Vanderheiden, of University of
Maryland (via University of Wisconsin)





Meet Sarah

She wants to use any computer in the library – not just the few set up with assistive technology.

“For the first time I can use any computer in the library, participate in all library programs, use the stacks, and sit with my friends – just like anyone else.”



Meet Josh

The computers available for use at the college were not set up to meet his needs.

“I knew I was smart enough to finish college, but the technology was getting in my way until Morphic arrived.”



Meet Cynthia

She needs to be able to do her best on standardized placement tests.

“I want to get into a good college but was upset to learn that I can’t use my computer and AT for placement tests. Then they told me about Morphic.”



Meet Susan

She needs different computer set ups at different times of the day.

“Because of my disability, the way I use my computer needs to shift throughout the day. Morhic lets me instantly change any and all settings as my abilities shift.”



Meet Wesley

He needs to have tech set up correctly for his classrooms.

“I teach in different classrooms at the university, with different computers and setups. With Morphic, I no longer lose half my class time helping students set up their computers.”

Photos of Grandkids

Weather

Family Call



Kate

Worship Service

Mary Facebook

Gmail

[Web site]

Computer Assistance



morphic.org/morphic-plus/

Apps QUICK SLQD Editor Doughnut TODO! Task-Agenda Shared with me -... M OUTREACH Reading List

What in the World is Morphic?

Morphic is an all-in-one accessibility shortcut for you that accesses the accessibility features already built into your PC or Mac and makes them easier for you to customize. Did you know that your PC has the ability to read text to you or to allow you to change the overall appearance of your screen without downloading any additional software? Morphic comes in. Morphic puts all these features right into the operating systems of new computers so you can find the settings. That is where you can find the settings on an easy to use toolbar that you can move around your screen to work best for you. And the best part is that you can explore some of the options on

Morphic's Basic Toolbar
Morphic toolbar.

Have you ever been to a website where the font is just so small that you get frustrated and give up on reading it? On a touchscreen device, the font can

Magnifier
200%
Navigation icons: back, forward, search, zoom in, zoom out

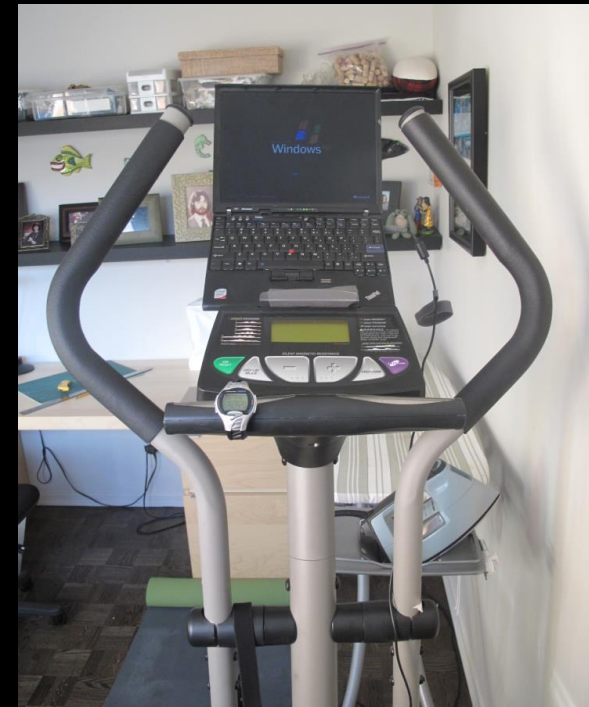
Kinds of disabilities and challenges

EXAMPLES

1. **Permanent:** face blindness since birth
2. **Episodic:** cast, driving, eye drops, tipsy, flu, PTSD, smoke-filled room, noisy place, pregnant, **distance**
3. **Acquired:** ageing-related
4. **Societal:** left-handedness

Impairments

- Visual...
- Dexterity (mobility)...
- Hearing...
- Language and speech...
- Cognitive...
- Social...



Assistive technologies



An **assistive technology** is a tool that assists with a disability or impairment:

- specialized (e.g., wheelchair)
- mainstream (e.g., Acrobat Reader, Skype)

An **electronic assistive technology** helps access documents:

- hardware alternatives
- software assists

In a world that assumes all faculties are available, **swapping and extending** senses is the creative response...



Beyond magnification, for less than a dollar

| Comisiones y/o recargos por tarjeta de débito | |
|--|---|
| Comisión | Cobro |
| Transacción en cajero automático red propia | \$ 0.50 (más IVA) gratis por día |
| Retiros en cajeros automáticos (Red SERFINSA) | \$ 0.60 (más IVA) gratis por día |
| Transacciones en cajeros automáticos en El Salvador | Hasta \$ 3.50 (más IVA) |
| Transacciones en cajeros automáticos fuera de El Salvador | \$ 4.50 (más IVA) |
| Gestión de reclamo en Transacciones de Tarjeta de débito (cuando no aplica el reclamo) | \$10.00 (más IVA) |
| Reposición de PIN | \$ 1.00 (más IVA) |
| Reposición de Tarjeta por pérdida, robo y extravío | \$ 5.00 (más IVA) |
| Membresía mensual por servicio | \$1.50 (más IVA) mensual (6 meses gratis) |
| Membresía Tarjeta Adicional | \$ 0.50 (más IVA) mensual |



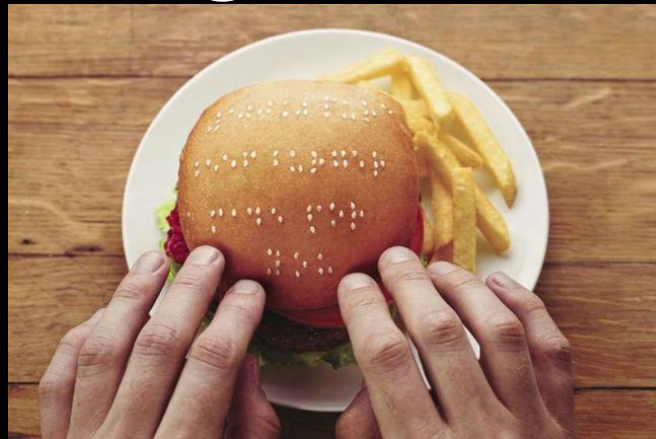
Davidberman.com

NOTAS:
• Las tasas y comisiones están sujetas a cambios previa comunicación.
• Las tasas y comisiones y recargos no incluyen IVA.
• Las definidas modalidades de depósito ofrecidas, han sido aprobadas por el Banco Central de El Salvador, en la conformidad a la transferencia a la intermediación, negociación y plazo.
• El Instituto de Garantías de Depósitos (IGD) es el garante de los depósitos por cuenta hasta por el monto máximo de \$10,177.00 de conformidad a lo establecido en el Art. 107 de la Ley de Bancos.

***NOTA: Comisiones no incluyen gastos de bancos corresponsales.
Boulevard El Hipódromo Avenida Las Magnolias, Col. San Benito
#144 San Salvador, El Salvador PBX: (503) 2213-1717



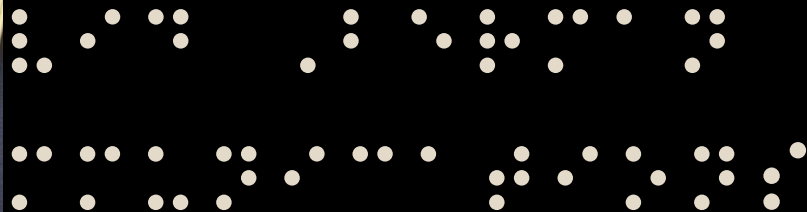
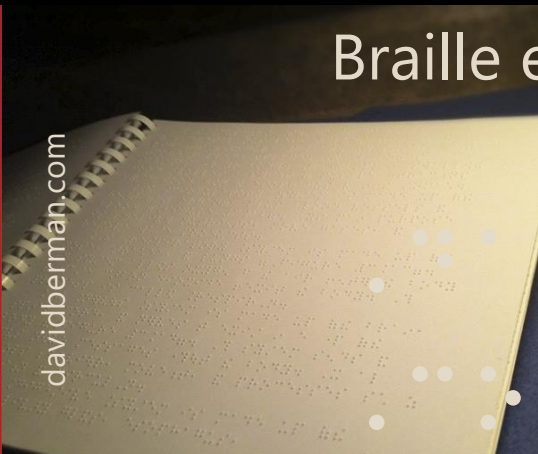
Instead of reading... **feel**



Dynamic Braille displays raise or lower dot patterns on command ... typically 12 to 80 characters wide.



Braille embossers print braille.



Instead of seeing unclear... **enhance**

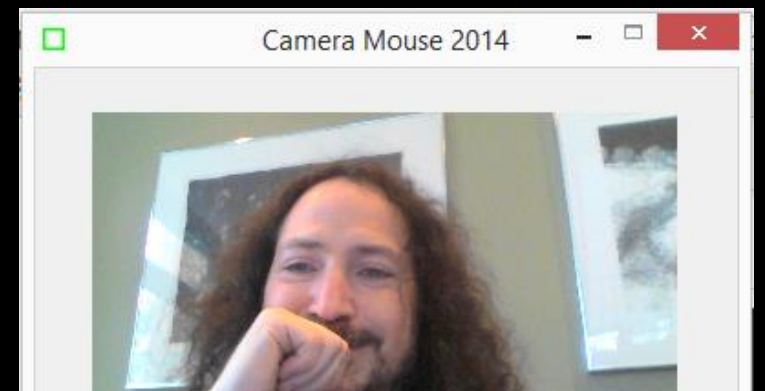


*"I can now be
the person I'm
supposed to be."
- Yvonne Felix*

Ottawa's eSight Corporation's computerized glasses reconfigures high-definition camera images to two LED screens

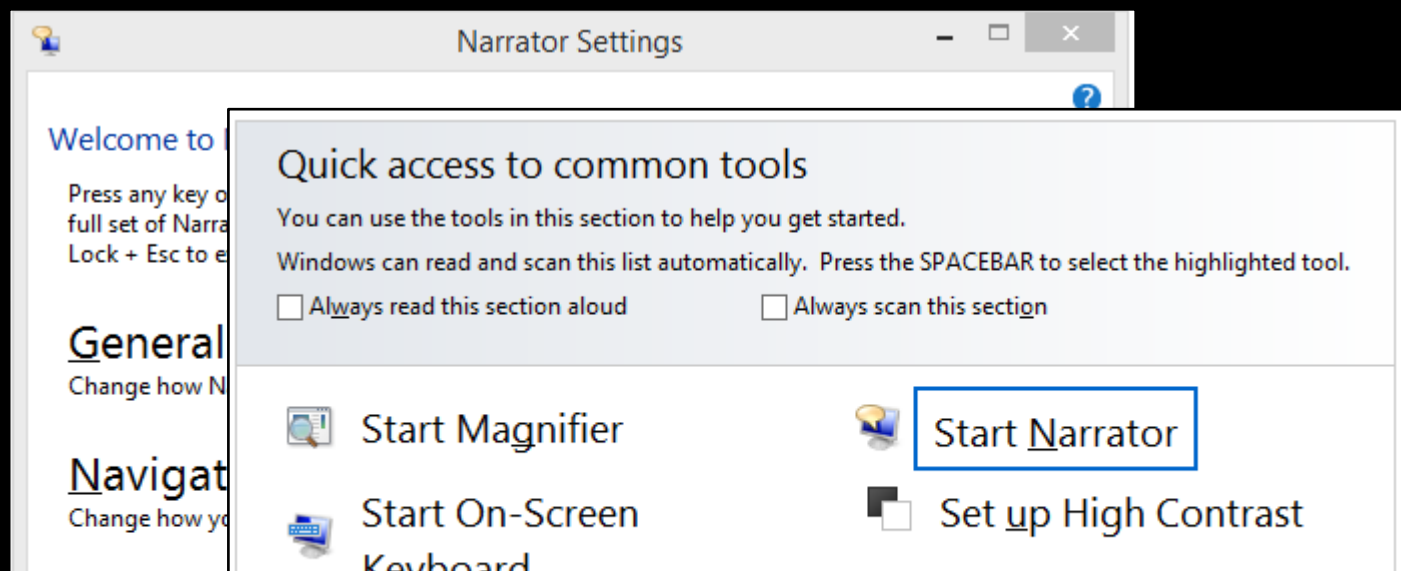
Instead of swiping or scrolling... **roll your eyes**

Tobii EyeMobile or EyeX uses gaze alone, with every Windows app

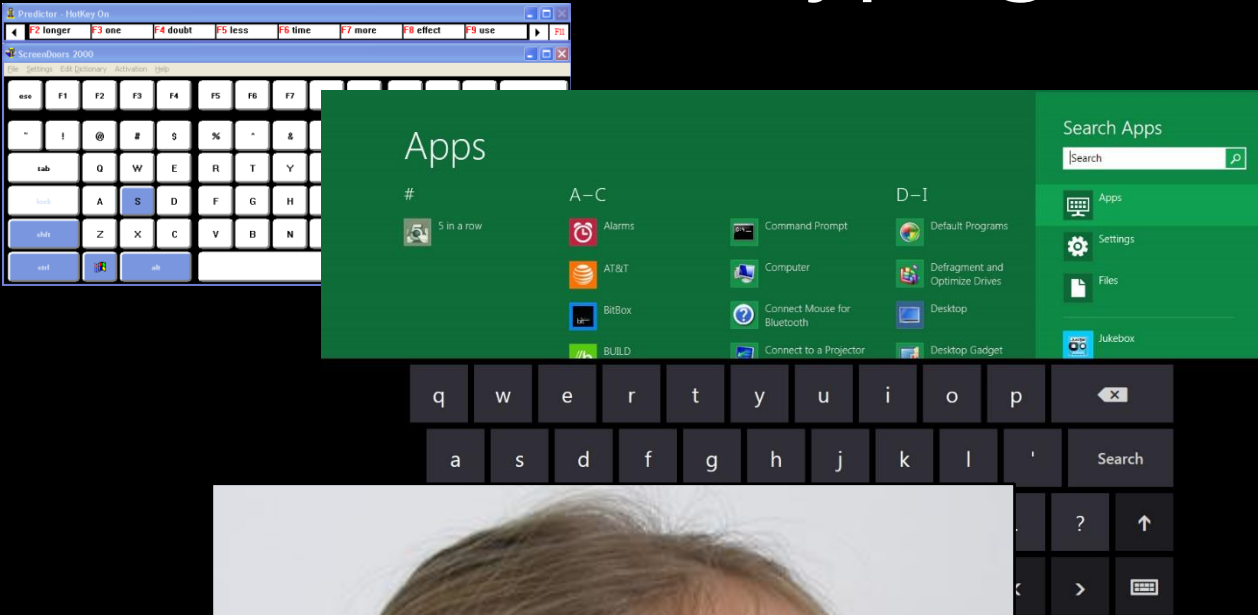


Instead of typing... talk

- Voice recognition commands the device through voice (Cortana, Dragon Naturally Speaking for Windows, Apple Siri, Google Home, Amazon Echo)
- ...or augment challenged typing by hearing what you have just typed



Instead of typing... **click, sip, puff, tap, shake**



- Alternative keyboards, input devices
- Software can assist typed input through anticipation and tremor filtering
- Scalable objects help too

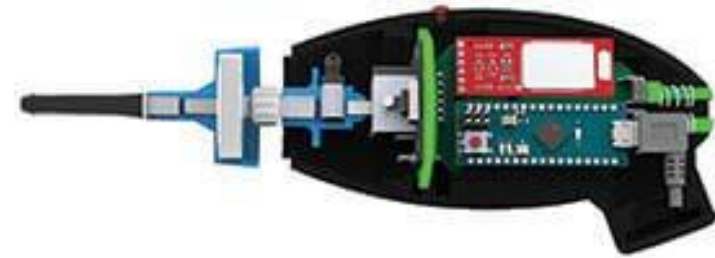


Neil Squire Society's LipSync



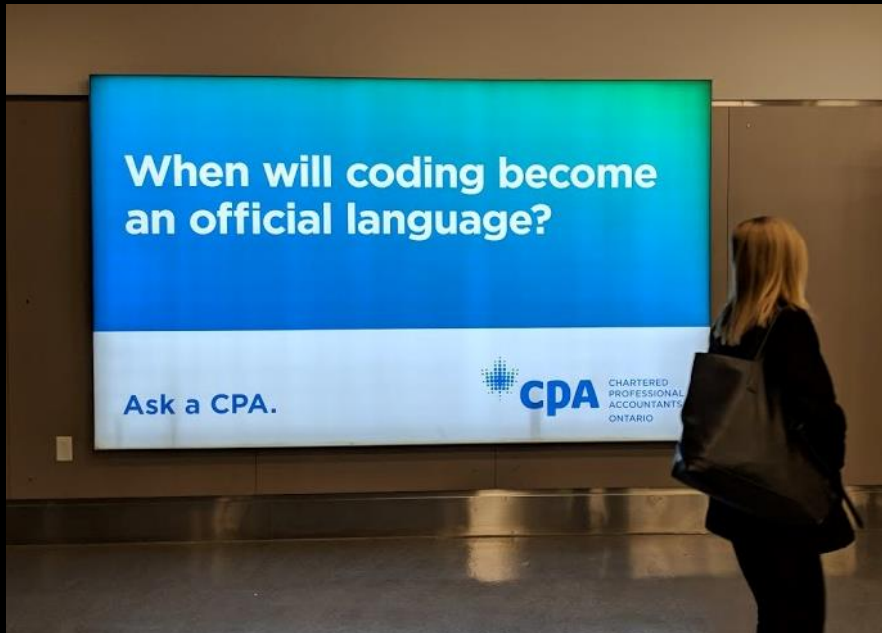
CONNECTING
CANADA

FIRM OFFERS
HIGH TECH,
LOW BARRIERS



The ideal accessible educational world

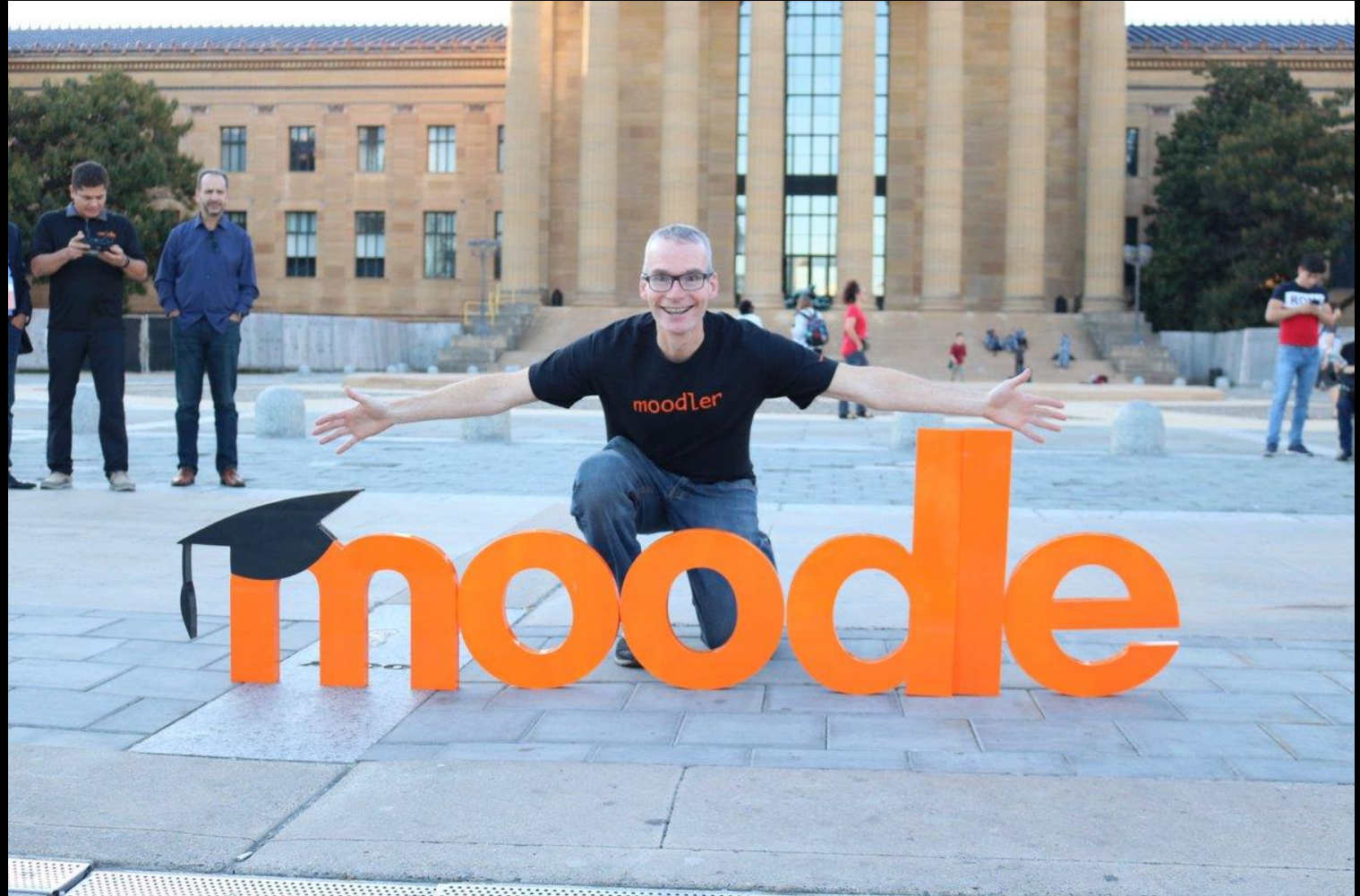
Usable, effective, barrier-free, and intriguing for **everyone**
on any **user agent** (e.g., browser, app, PDF/eBook reader)
on any budget of **device**
with any kind of **connection or location**
in any kind of **environment**
for any **gender, age, ability, or culture**
in any **learning style**



Accessibility Dividend case study #2: Blindside's BigBlueButton

"We've always invested in accessibility, because we always believed in online learning. We just never expected the entire world to go online at the same time."

– Fred Dixon, from Carleton University



Blindside's BigBlueButton

- In the past 13 months, Blindside hosted 250,000,000 students with 1.5 billion minutes of remote learning
- German regional government hosted 4,000 servers just to run BigBlueButton ... *"that would simply have not been possible if we hadn't already certified BigBlueButton as accessible"*.
- Now part of Moodle installation, due to the pandemic



Blindside Networks
supercharges
BigBlueButton,
the world's only
open-source
virtual teaching
platform.



In the past 13 months Blindside Networks has hosted 250,000,000 students across 1.5 billion minutes of learning.

When it came to calling on goodwill and the relationship with Blindside Networks ...they're as straight shooting and hardworking as they come - it's difficult to express how much they supported our success.

Eamonn Fitzgerald
Education Services Tech
Manager
University of Limerick

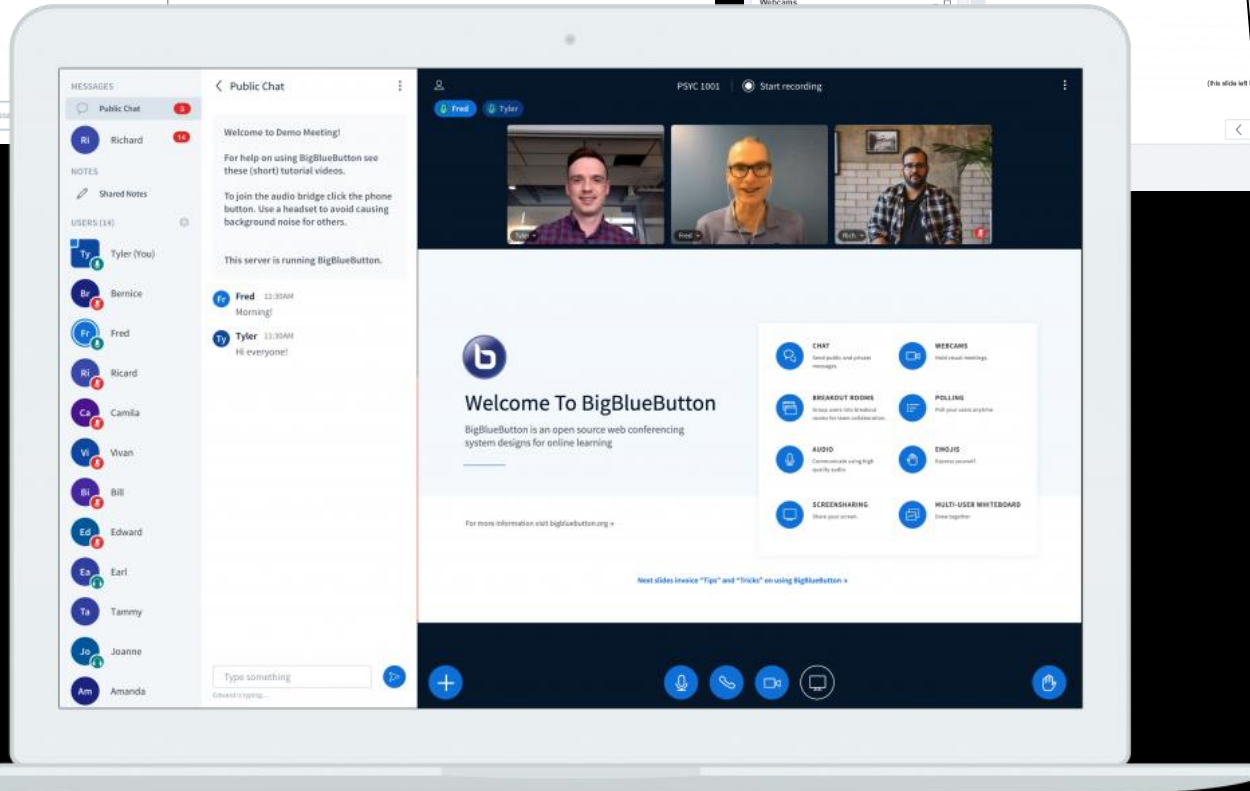
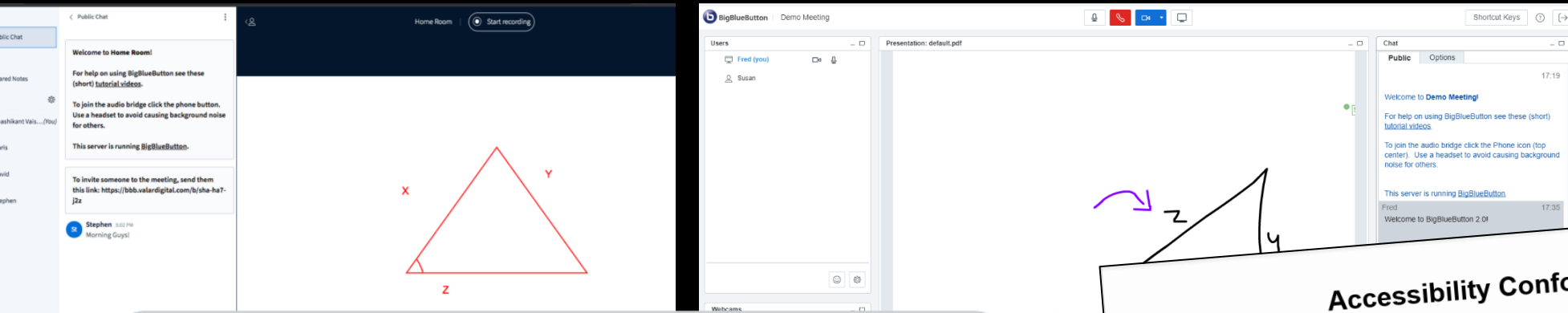


Welcome to classroom collaboration from a teacher's perspective.

BigBlueButton was born in a classroom and built for one audience: teachers. For more than a decade, Blindside Networks, the creators of BigBlueButton, overseeing 12 versions of the product and driven every new feature and product update.

We know BigBlueButton better than anyone on the planet and our premium hosting services give our clients access to options, tools, and customization and features simply not available on the free version.

Blindside anticipated accessibility years ago



Accessibility Conformance Report

VPAT® Version 2.2 (version of VPAT standard published by ITI July 2018)
prepared by [David Berman Communications](#)

This document complies with all applicable WCAG 2.0 and WCAG 2.1 Level A and Level AA guidelines for accessible digital documents. For alternative formats, please contact David Berman Communications at info@davidberman.com or 1-613-728-6777.

Name of Product/Version: Blindside BigBlueButton HTML5 release

Product Description: BigBlueButton is a web conferencing system designed for online learning.

Date: July 2019

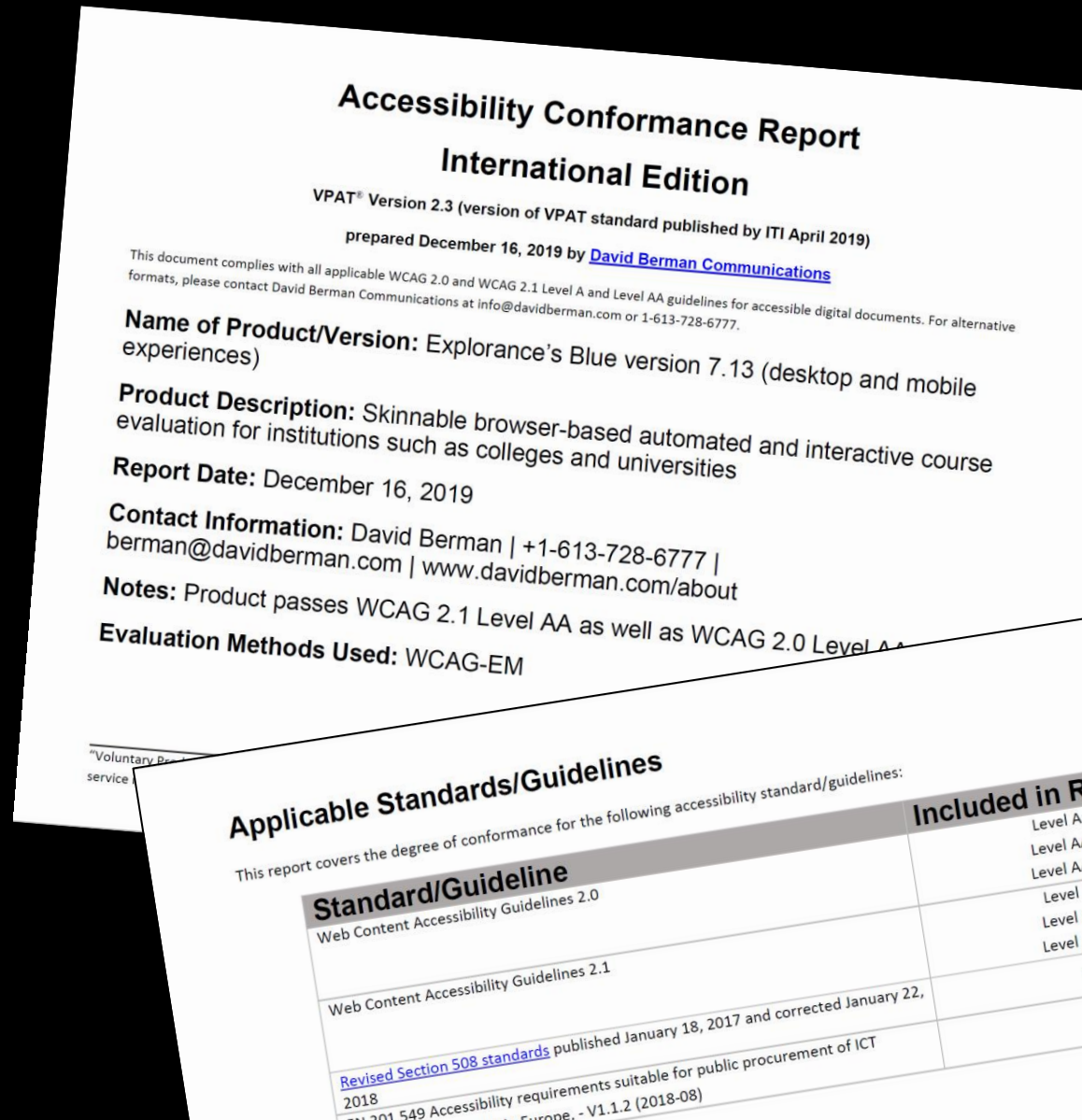
Contact Information: David Berman | +1-613-728-6777 | berman@davidberman.com | www.davidberman.com/about

Notes: Both the audience and the moderator views were fully tested. The product also complies with the pertinent aspects of E207 (specifically E207.2, E207.2.1, and E207.3).

Evaluation Methods Used: WCAG-EM

VPAT: Voluntary Product Accessibility Template

- The most popular global reporting format for informing buyers as to the accessibility of an ICT product
- Version 2.4 released in March 2020
- Each version has four editions: EU, US, WCAG, and International (which includes the previous three)
- VPAT is referenced by both the U.S. federal accessibility standard *Revised Section 508* and by the EU's procurement standard *EN 301 549*



VPAT: **Voluntary** Product Accessibility Template

Accessibility Conformance Report International Edition

VPAT® Version 2.3 (version of VPAT standard published by ITI April 2019)

prepared December 16, 2019 by [David Berman Communications](#)

This document complies with all applicable WCAG 2.0 and WCAG 2.1 Level A and Level AA guidelines for accessible digital documents. For alternative formats, please contact David Berman Communications at info@davidberman.com or 1-613-728-6777.

Name of Product/Version: Explorance's Blue version 7.13 (desktop and mobile experiences)

Applicable Standards/Guidelines

This report covers the degree of conformance for the following

| Standard/Guideline |
|--|
| Web Content Accessibility Guidelines 2.0 |
| Web Content Accessibility Guidelines 2.1 |
| Revised Section 508 standards published January 18, 2018 |

Product
evaluation

Report D

Contact
berman@

Notes: P

Evaluati

Revised Section 508 Report

Notes: None

Chapter 3: Functional Performance Criteria (FPC)

Notes: None

| |
|----------------|
| 302.1 Without |
| 302.2 With Lim |

WCAG 2.x Report

Tables 1 and 2 also document conformance with:

ility requirements suitable for p
s in Europe, - V1.1.2 (2018-08)

formance Level informatio

ctionality of the product ha
ent facilitation.

ceptions: Some functional

Accessibility dividend case study #3: InSpace: beyond Zoom fatigue



InSpace proximity-aware platform,
developed specifically for higher-ed
classrooms, by educators for educators

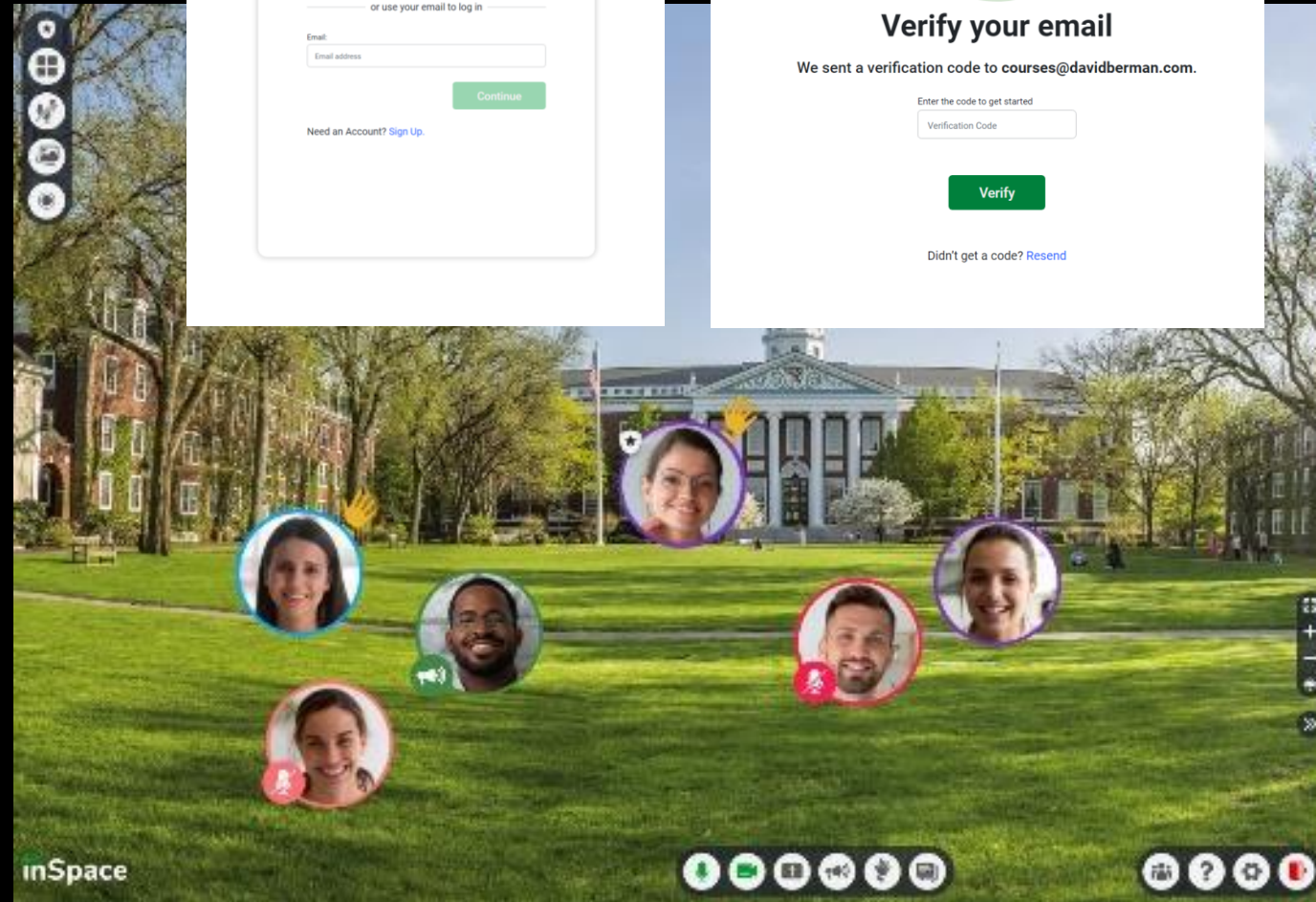
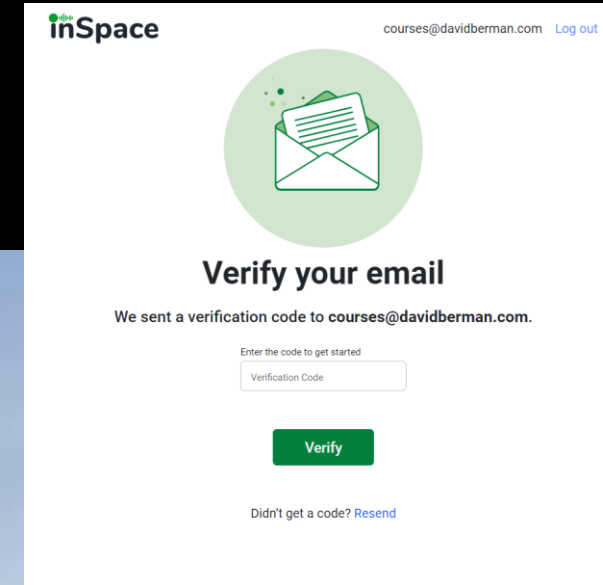
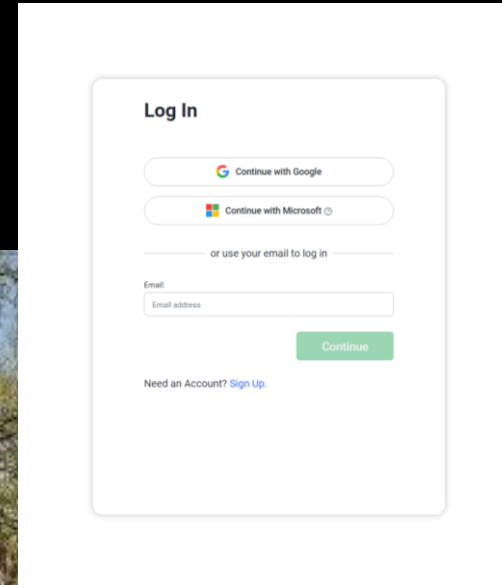
"During the pandemic, the need for accessible software became even more evident. We opted to prioritize work with David and his team because accessibility is at the core of our values as an edtech company. Creating a product to be used in educational settings that doesn't meet accessibility standards: that's not an option for us."

- Narine Hall, from Champlain College



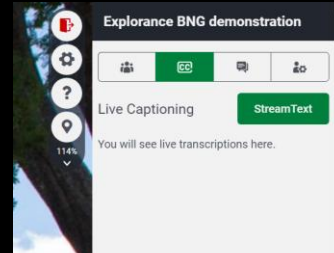
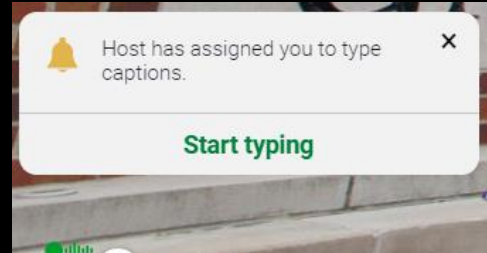
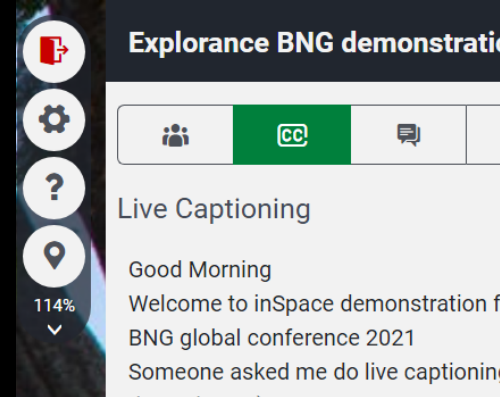
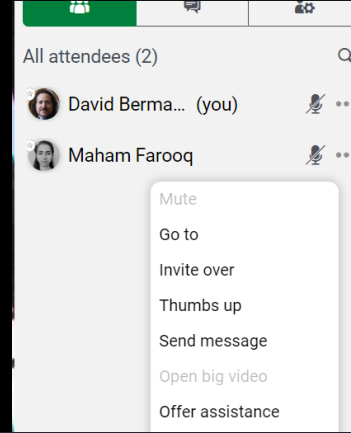
wcag2.com/bng2021 InSpace demonstration

*"One of the most valuable things that has come out of working with David and his team has been the opportunity to think big, and then even bigger, about what's possible. We've loved the partnership that asks, **"We've met the minimum requirement, but how do we take it up a notch to make this an exceptional experience for all?"**"*



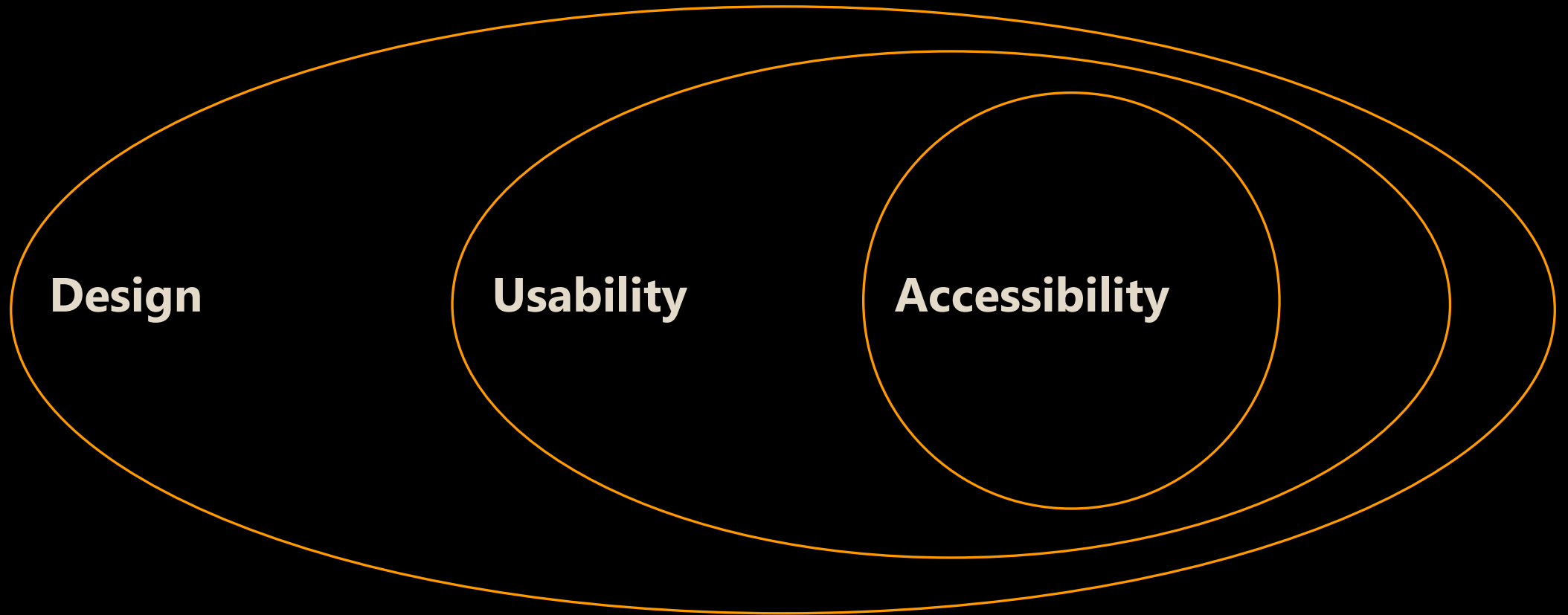
InSpace packed with accessibility features that benefit all learners

- Both amateur and professional caption support
- Attendant mode
- Full screen reader support for breakout rooms
- Invite over
- Graphically-rich chat
- Alternative text on backgrounds
- Pop-out window (outside browser tab) for specific attendees
- Multi-space conference mode
- Integrations, private self-disclosure, stereo proximity...



Accessibility is simply a subset of usability, focussed on extreme cases

When we design for the extremes, and we do it well, everyone benefits



Body Text

Variable Width



Edit

HTML

Subject: Contact David Berman Communications
Date: Thu, 4 Feb 2010 11:07:30 -0500
From: Samer Saab <ssaab@eXplorance.com>
To: info@davidberman.com

This is a submission from the 'Contact Us' page on davidberman.com.

Date: February 4, 2010

Name: Samer Saab

Email: ssaab@eXplorance.com

Organization: eXplorance Inc.

Message: Hello,

We are in the process of evaluating the effort and tangible steps we need to take in order to make our software Blue 2.0 compliant.

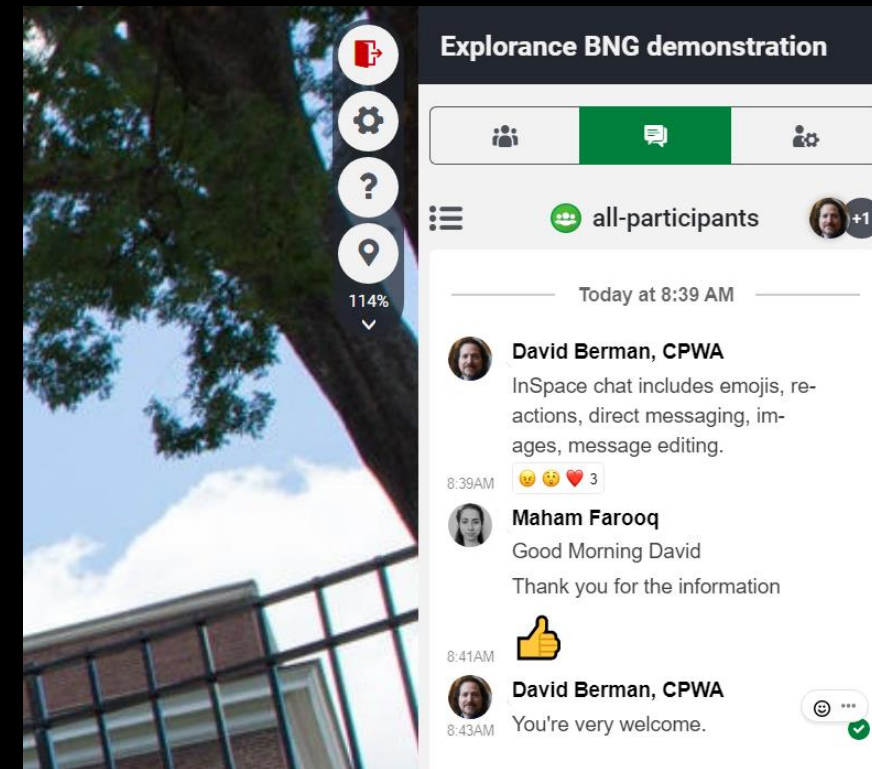
Do you have any seminars occurring in the near future? April 10 is a bit far away, as we have a release scheduled for September of 2010.

If not, what are the availability, conditions and fees associated with an onsite presentation at our premises, or even a special presentation in your Ottawa premises (we are in Montreal)?

Future of course evaluation and engagement: leveraging the remote classroom

- Possible realtime AI engagement **feedback** to instructor, if it matters to them
- Experience management analytics based on learner's (and presenter's) movements, chat engagement, chat mood
- Proximity tracking

What becomes possible when we can detect people's preferred learning modalities, in pursuit of each student's success?



Learn more: How to make your online classrooms more welcoming to all

wcag2.com/accessible-online-meetings



Accessible online meetings article

📅 July 29, 2021

“If you’re not sure what to do, just ask.”

By David Berman, with Maham Farooq and other contributors at David Berman Communications

[Some content used with permission from Brian Kon and from the Disabilities Issues Office, Government of Manitoba. Thank you also to the Canadian Association of the Deaf, CAST, and Autism Speaks for their help!]

If you don't have a lot of experience hanging with people with disabilities, you may be afraid to do or say the wrong thing, especially when you're in a live gathering with people you've perhaps just met.

Interacting with everyone is actually pretty easy: people living with disabilities are people first. They need the same things that every person needs. The easiest way to show respect is to focus on the person and not the disability.

You can think of distance participation as a basket of temporary disabilities: not being able to see or be seen, hear or be heard, or otherwise interact in ways that are easy to do in person and when fully abled.

So let's get you comfortable, and poise you to be able to help everyone get the most out of every meeting...

Welcoming everyone

Treat everyone with respect. If you are unsure what to do or how to assist someone, ask them. A person with a disability in an unfamiliar environment may be much more vulnerable or awkward than in familiar surroundings.

It's very cool that you'd like to help: however, do ask first ... what you think might be helping may be the opposite.

Just because someone is blind does not mean that they are Deaf. And just because they are Deaf doesn't mean they are blind. If you're not sure what to do, just ask: treat others the way you would want to be treated and we'll all be okay!

So first, get comfortable with what words are best...

Vocabulary

- In general, refrain from using negative terminology to refer to differing abilities. For example, a person is not *confined to their wheelchair*; they *use a wheelchair*.

The 7,500th generation

"Over the next 10 to 15 years, technology has the capacity to virtually eliminate barriers faced by people with disabilities in the workplace."

| STEVE BALLMER, MICROSOFT

DIY Clear Covid Mask: *WCAG 2.1 conformant accessible instructions!* [wcag2.com /clear-covid-mask](https://wcag2.com/clear-covid-mask)

wcag2.com

ACCESSIBILITY BY DESIGN

ABOUT

STRATEGY

TRAINING ▼

AUDITING

REMEDIATION

CONTACT US

Training home

Accessibility Cookbook

Search ...

Sarah Bloomfield's Clear Covid Mask

Sarah Bloomfield's Accessible Clear Covid Mask



Descriptive transcript of "Five reasons why we should care about accessibility"

Thank you!

 facebook.com/davidbermancommunications

 linkedin.com/in/bermandavid

 twitter.com/davidberman

Subscribe to our events: davidberman.com/subscribe



Upcoming events:

- New Standard On eAccessibility half-day course | online | 2021 November 12
- More: davidberman.com/courses/schedule

Need to reach me?

david@davidberman.com / +1-613-728-6777

Read the first 40 pages of *Do Good Design* free at Google Books

davidberman.com/dogoodgooglebook

Participants are entitled to a discount on a paper or eBook edition of **Do Good Design** by quoting this Discount Code:
DOGOOD

Don't just do good evaluations, do good!



Need a white paper? Links to everything I've mentioned? Questions?

Email me:
david@davidberman.com



Global Initiative for Inclusive Information
 and Communication Technologies

CRPD Implementation:

Promoting Global Digital Inclusion
 through ICT Procurement Policies &
 Accessibility Standards

White Paper

Solving Web Accessibility: Leaving No One Behind

Why Should We Care About Web Accessibility?

Worldwide, more than one billion people have a disability. Disability affects one in three families in North America, and if it doesn't affect yours, it is almost a certainty that it affects someone close to you. What is important to note when looking at these statistics is that, while these numbers already make up a significant percentage of the national and global population, the proportion of people living with a disability is growing.



This is happening for several reasons. Medical and technological advancements have increased the survival rate for premature babies, which is a wonderful thing. However, this means that more babies are being born with disabilities.

People are also living longer, and as they age, they develop disabilities such as hearing loss and Alzheimer's – in fact, the 2010 US Census found that 50% of adults 65 and older had a disability (as opposed to 19% across all age groups). The US is also coming out of a decade of war. With modern medicine and armor, soldiers are ten times more likely to survive an injury than in previous wars, which means that many soldiers are sustaining injuries that constitute a disability.

With miraculous medical and technological advancement comes a critical need to improve accessibility measures to accommodate the growing population of individuals with disabilities. This white paper is intended for administrators and developers of website content, media producers, accessibility

Acknowledgments and credits

Jeff Anderson, Ben Armitage, Mitchell Bellman, Tatiana Branicki, Jeff Braybrook, Dee Bouchard, Donnie Cheslock, Patrick Cunningham, Ray Farmilo, Andy Foley, Dr. Alan Frank, Alena Fraser, Edward Galagan, Paul Girvin, Jannicke Holen, Cynthia Hoffos, Paul Jackson, Joanne Kerr, Steve Krug, Daniel Langlois, Chuck Letourneau, Sabina Lysnes, Rob Mauchel, Marius Monsen, Vivian Nash, Jacob Nielsen, Peter O'Connor, Khadija Safri, Shebah Tatz, Sonia Théberge, Tamara Torok, Kelsey Voy, Deanna White

Adobe, AMI, Canada Council, Canada School of Public Service, Carleton University, CFIA, City of Hamilton, City of Ottawa, Correctional Service Canada, CRA, Department of Canadian Heritage, Explorance, Funka, Government of India, Government of Korea, Government of Queensland, Health Canada, IBM, Institute for Performance and Learning, LCBO, Microsoft, NetCentric, Norwegian Agency for Public Management and eGovernment, Norwegian Computing Society, Norwegian Design Council, National Research Council, NVDA, Public Health Agency of Canada, RGD Ontario, St. Lawrence College, Statistics Canada, Sultanate of Oman, T-Base, Treasury Board of Canada, uxforum.no, Virginia Foundation for the Humanities, W3C, WGBH Boston

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We work hard to ensure the accuracy of this learning guide. If you have any suggestions for improvement, please email berman@davidberman.com or visit www.davidberman.com/contactus

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About David Berman, CPWA, ADS

David Berman is one of perhaps 20 people in the world to hold CPWA certification and 100 people globally to hold CPACC certification, the World's only certifications for accessibility professionals. (In fact, he was the first person in Canada to take these exams!) These certifications are issued by IAAP (International Association of Accessibility Professionals). IAAP is a division of G3ICT, for which David is an International Advisor. In 2018, David was appointed to the Global Council of the IAAP.

David is on the ISO committee for accessible PDF (PDF/UA).

He has over 30 years of experience in design and communications, and has worked extensively in the adaptation of content for electronic distribution, including accessible Web and software interface development.

David was appointed by Ontario's Minister in charge of accessibility to serve on the standards review committee for Ontario's world-leading AODA accessibility regulations.

He was contracted by Sir Tim Berners-Lee's World Wide Web Foundation to audit online accessibility in over 40 countries for the annual [theWebIndex.org](http://www.theweblindex.org) benchmark report.

As author (Do Good Design [Peachpit/Pearson, 2009/2013/2018]), expert speaker, designer, communications strategist, and accessibility consultant, his path has brought him to over 50 countries.

In 2015, he was named an Invited Expert to W3C, the authors of WCAG 2.0. The same year he was appointed International Universal Design Champion for the Government of Ireland.

In 2009, David was appointed a high-level advisor to the United Nations on how accessible Web design can help fulfill the Millennium Development Goals.

He regularly teaches WCAG accessibility as part of his professional development workshops.

David and his team have been working with Treasury Board Secretariat going back to CLF 1.0 days. Over 40 departments and agencies have hired Berman's team for inclusive design and strategic expertise.

He has provided design and consulting work for the International Space Station, IBM, The World Bank.

David is Chair of Carleton University's Carleton Access Network for accessible information technology, run out of Carleton University's Paul Menton Centre for Students with Disabilities as an initiative of the School of Engineering and has provided accessibility training and consulting to schools across Ontario.

Full biography and CV:

<http://www.davidberman.com/about/biography>

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Courses and learning guides: davidberman.com/store (\$97)

- *The Standard on Web Accessibility: WCAG 2*
- *What's New in WCAG 2.1*
- *Accessible InDesign to PDF*
- *Accessible PDF with Adobe Acrobat Pro*
- *How to test for accessibility: automated and manual testing*
- *Accessible virtual meetings*
- *Accessible distance learning*
- *Accessible instructional design*
- *Writing for the Web with Accessibility in Mind*
- **COMING SOON: Accessible EPUB**

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