

# DO THE RIGHT THING

## **ACCESSIBILITY AND INCLUSIVE DESIGN (WITH DRUPAL)**

# WELCOME

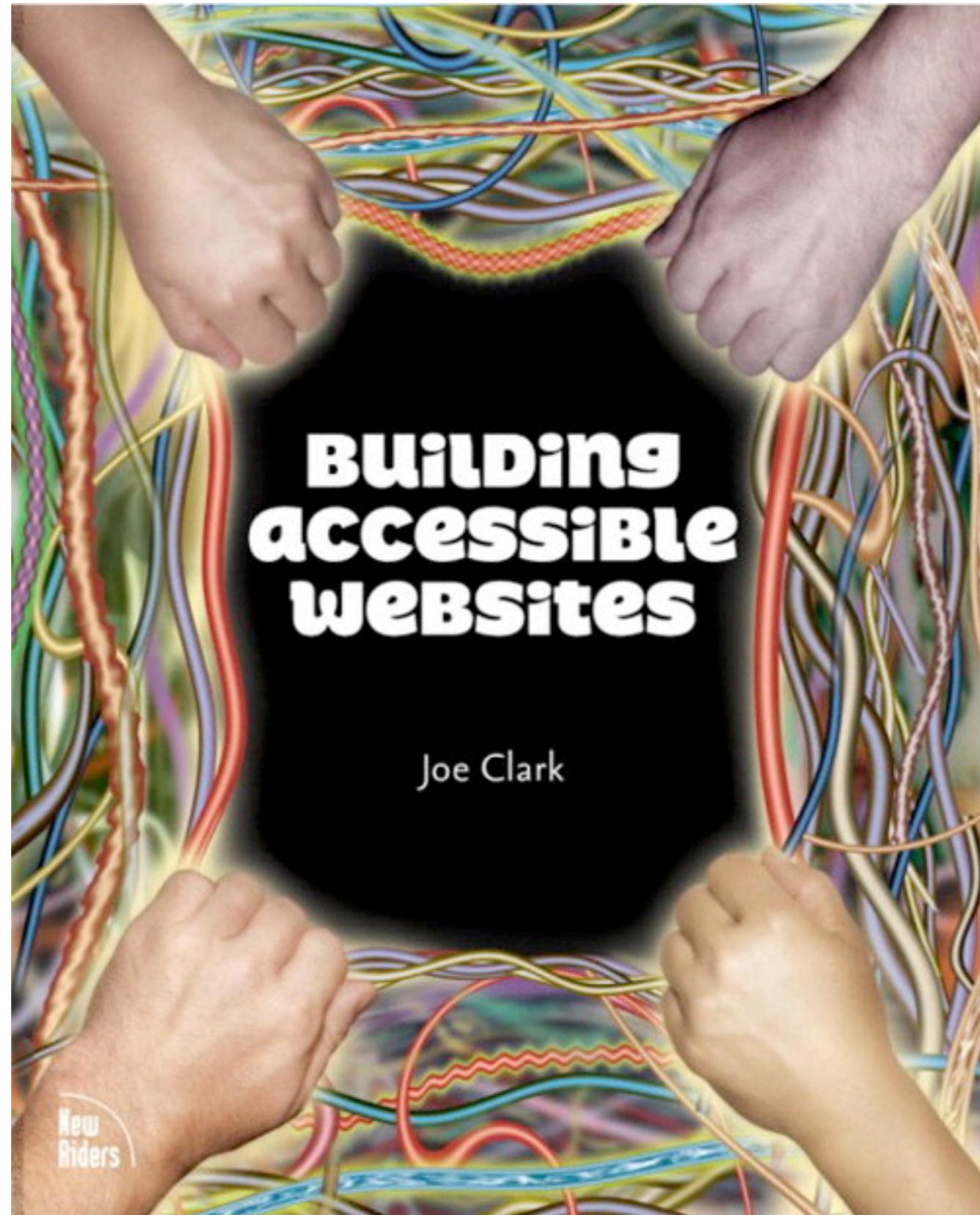
# **WELCOME**

**THANK YOU**

Therefore

We specialize in adaptive designs, cross device  
content accessibility and open source technologies,  
such as Drupal CMS.

My name is Crispin Bailey.  
I've been interested in Web Accessibility for  
over a decade.



@cspin

#ally

#DAX

#D7AX/#D8AX

These slides will be posted online

And the video will be captioned

# OVERVIEW

- What is Accessibility & Inclusive Design?
- Why should I care?
- How much is this gonna cost?
- Where do I start?
- What about Drupal?
- Where can I get more info?



The power of the Web is in its universality.  
**Access by everyone regardless of disability  
is an essential aspect.**

- Tim Berners-Lee, W3C  
Director and inventor of the World Wide Web



**Accessibility** is the degree to which a product, device, service, or environment is available to as many people as possible.

- Wikipedia



**Inclusive design** is design that is inclusive of the full range of human diversity with respect to ability, language, culture, gender, age and other forms of human difference.

- Inclusive Design Research Centre  
at OCAD University



# WHO ARE WE DOING THIS FOR?

- Anyone with a vision disability
- Anyone with a hearing disability
- Anyone with a mobility disability
- Anyone with a cognitive disability

# WHO ELSE?

- older people
- people with low literacy or not fluent in the language
- people with low bandwidth connections or using older technologies
- new and infrequent users
- future generations of connected devices











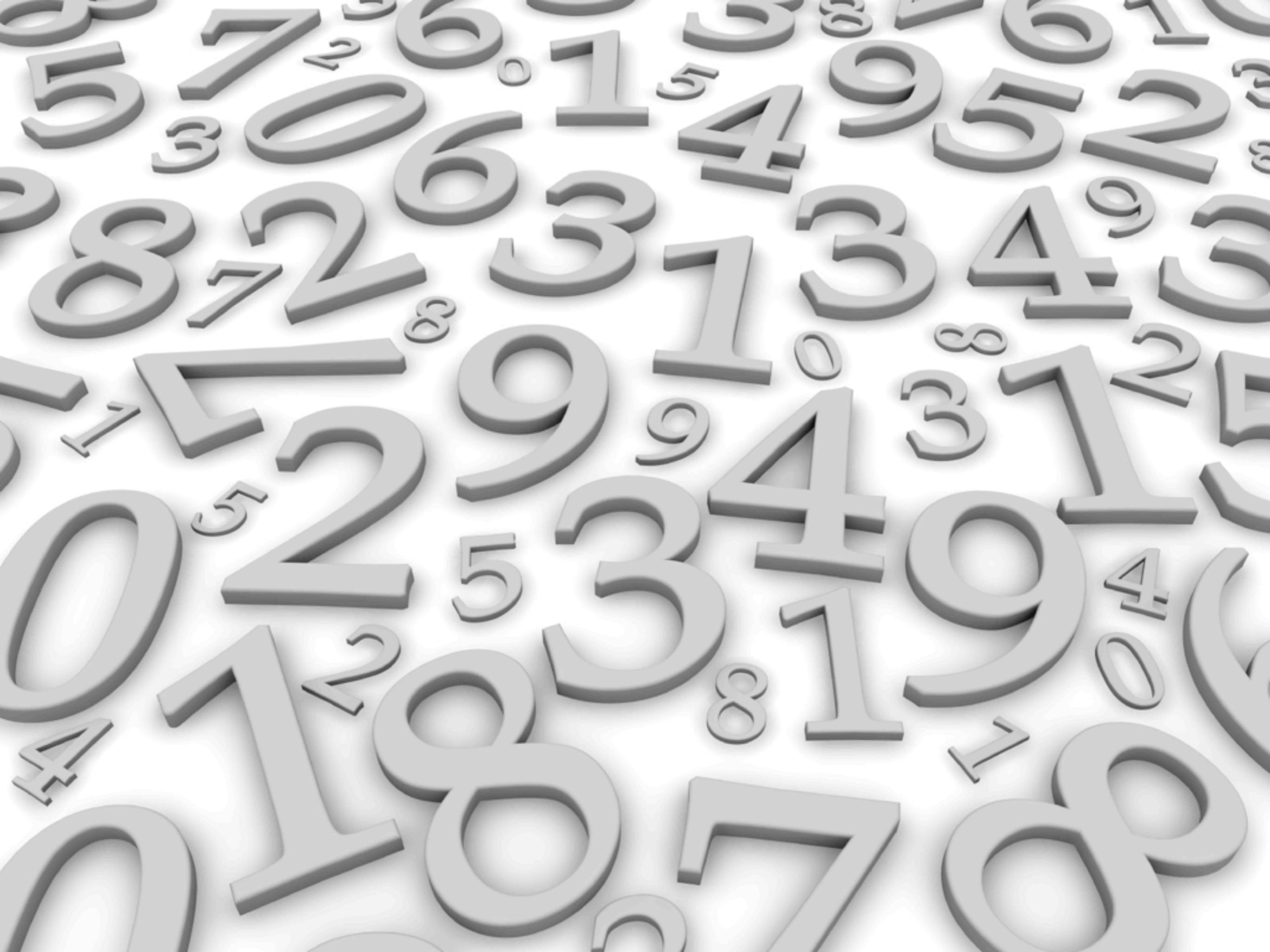












# SOME NUMBERS

About **4.4 million Canadians (14.3%)**  
reported having a disability in 2006.

Over 20% of them have a mobility  
or agility disability

5% of have a hearing disability

4.5% have a learning or memory disability

Over 3% have a vision disability

# IT'S WORTH IT

In the United Kingdom, 75 per cent of the companies of the FTSE 100 Index on the London Stock Exchange do not meet basic levels of web accessibility, **thus missing out on more than \$147 million in revenue.**

- UN Factsheet on Persons with Disabilities



# WHY NOW?

Accessibility for Ontarians with  
Disabilities Act (2005)

Requirements for Websites for Public sector organizations, businesses and non-profit organizations (50+ staff):

- **by Jan 1, 2014:** New public websites and web content must conform with **WCAG 2.0 Level A**.
- **by Jan 1, 2021:** All public websites and web content posted after January 1, 2012, must conform with **WCAG 2.0 Level AA** *other than criteria 1.2.4 (captions) and 1.2.5 (pre-recorded audio descriptions)*.

Penalties for major contraventions in both severity and history:

- corporations can be fined **up to \$100,000 a day**
- individuals or unincorporated organizations can be fined **up to \$50,000 a day**

# DON'T BE A TARGET

In May 2005 the National Federation of the Blind (NFB), a non-profit organization representing blind people in the United States, notified Target Corporation that its website, **Target.com**, was not accessible to blind and visually impaired users.

Key issues cited were:

- a lack of alternative (alt) text on the site
- online purchases could not be completed without the use of a mouse
- image maps to show store locations were inaccessible
- many headings important to navigating the site were missing

Target Corporation would not commit to  
any action to remedy this.

In January 2006, the NFB filed a class action lawsuit.

In August 2008 Target Corporation settled the suit for **\$6 million**.

The NFB was also awarded nearly **\$4 million** to cover their legal fees and costs in addition to Target's own legal costs.

Total cost to Target Corporation:

\$10,000,000+

# THE COST OF NOT DOING IT:

- Frustrating and alienating experience
- Brand damage
- Legal fees, fines and/or settlement payments
- Cost of retrofitting accessibility into your site

# WHAT DOES DOING IT RIGHT COST?

It depends.

# SOME ESTIMATES

Developing sites that meet WCAG 2.0 AA increases development costs by:

- **1% to 3% on simple sites** built with html and css (and little to no javascript)
- **3% to 6% on intermediate sites** built with html, css and an intermediate level of javascript
- **6% to 10% on heavy javascript sites** or flash sites

# DON'T WAIT

Retrofitting costs 2 to 3 times more.

WHERE DO I START?

# STEPS TO ACCESSIBILITY

1. Determine requirements (audio? video? images?)
2. Develop some rules (style guides and best practices)
3. Train staff (including design/dev partners)
4. Start implementing

WHERE THERE'S A WILL  
THERE'S A WAI

# WEB ACCESSIBILITY INITIATIVE (W3C/WAI)

<http://www.w3.org/WAI/>

# WAI-WCAG 2.0 (Web Content Accessibility Guidelines)

## 60+ Guidelines affecting

- Content owners
- Designers
- Developers
- Business stakeholders

# WAI-WCAG 2.0

## 4 Major Categories:

- Perceivable
- Operable
- Understandable
- Robust

# WAI-WCAG 2.0

## 3 Levels of Compliance:

- A
- AA
- AAA

# WAI-WCAG 2.0

## An example:

### **1.2.1 Prerecorded Audio-only and Video-only**

- A descriptive text transcript (including all relevant visual and auditory clues and indicators) is provided for non-live, web-based audio (audio podcasts, MP3 files, etc.).
- A text or audio description is provided for non-live, web-based video-only (e.g., video that has no audio track).



THIS GOES WAY BEYOND  
CONTENT...

# WHAT ABOUT WIDGETS?

## Find It Fast

Search here for cheap airline tickets, hotels, cars, cruises, and vacations

Flights      Hotels      Cars      Vacations      Cruises      Deals

Flight Only     Flight + Hotel Book together & Save    [One-Way](#), [Multi-City](#), [More...](#)

FROM      TO      DEPART      RETURN

MVD      [ ]      01/10/08      mm/dd/yy      SEARCH

ADULTS      CONNECTED

1      1

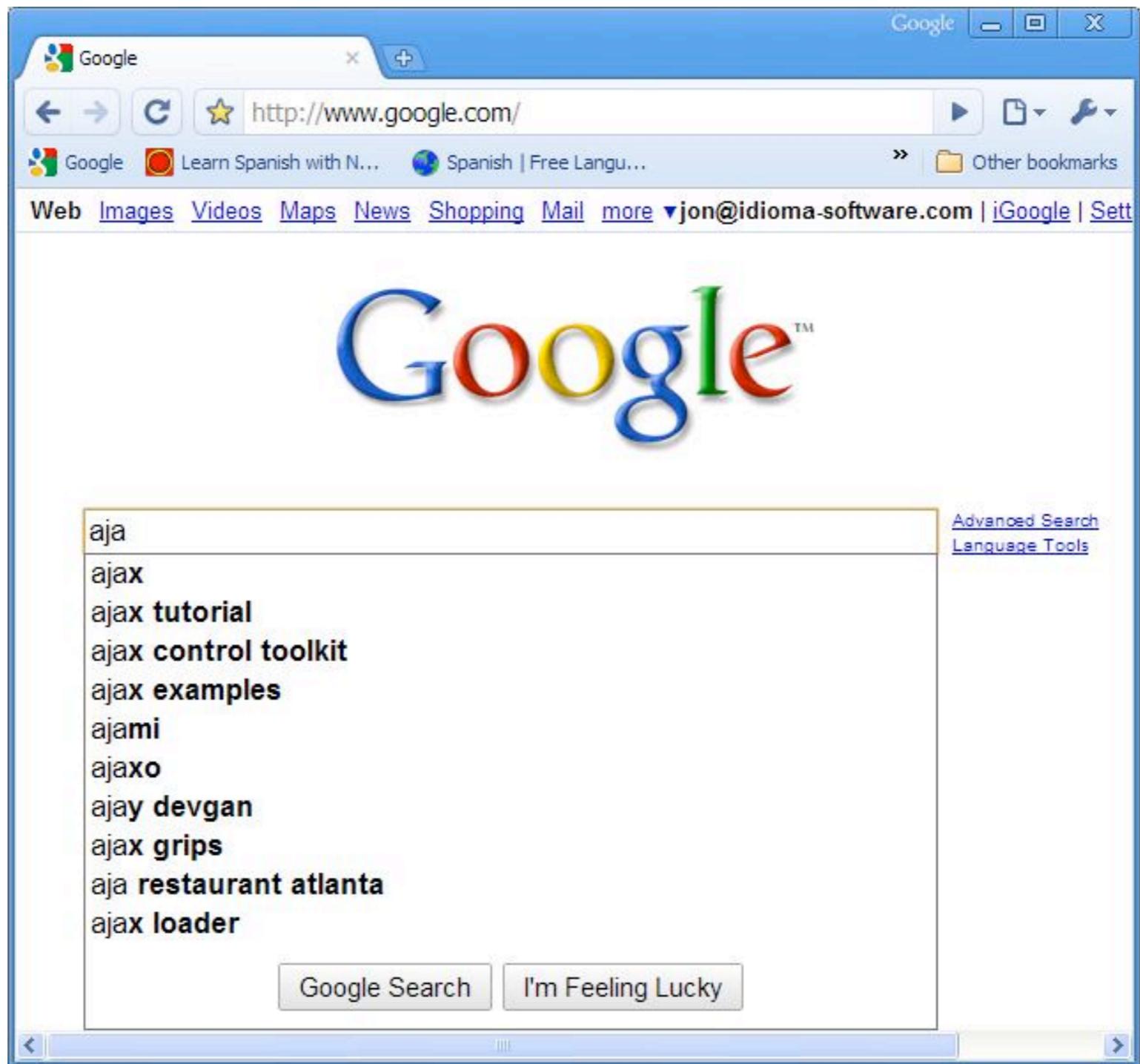
| December 2007 |    |    |    |    |    |    | January 2008 |    |    |    |    |    |    |
|---------------|----|----|----|----|----|----|--------------|----|----|----|----|----|----|
| Su            | Mo | Tu | We | Th | Fr | Sa | Su           | Mo | Tu | We | Th | Fr | Sa |
| 25            | 26 | 27 | 28 | 29 | 30 | 1  | 30           | 31 | 1  | 2  | 3  | 4  | 5  |
| 2             | 3  | 4  | 5  | 6  | 7  | 8  | 6            | 7  | 8  | 9  | 10 | 11 | 12 |
| 9             | 10 | 11 | 12 | 13 | 14 | 15 | 13           | 14 | 15 | 16 | 17 | 18 | 19 |
| 16            | 17 | 18 | 19 | 20 | 21 | 22 | 20           | 21 | 22 | 23 | 24 | 25 | 26 |
| 23            | 24 | 25 | 26 | 27 | 28 | 29 | 27           | 28 | 29 | 30 | 31 | 1  | 2  |
| 30            | 31 | 1  | 2  | 3  | 4  | 5  | 3            | 4  | 5  | 6  | 7  | 8  | 9  |

Canada only

Overlays and popups



Drag-and-drop



## Dynamic Updates (AJAX)

| Inbox                    |     |        |     |     |              |                            |        |      |
|--------------------------|-----|--------|-----|-----|--------------|----------------------------|--------|------|
| Sel                      | Msg | Status | Att | Pri | From         | Subject                    | Date   | Size |
| <input type="checkbox"/> | 1   | ✉      | 0   | ▼   | John Smith   | Trip to Florida            | Mar 10 | 2K   |
| <input type="checkbox"/> | 2   | ✉      |     | ▼   | Fred Jones   | Lunch on Friday            | Mar 12 | 1K   |
| <input type="checkbox"/> | 3   | ✉      | 0   |     | Jane Johnson | Proposal for you to review | Mar 13 | 12K  |
| <input type="checkbox"/> | 4   | ✉      |     | ▲   | Bill Smith   | Information on Weekend     | Mar 19 | 122K |
| <input type="checkbox"/> | 5   | ✉      | 0   | ▲   | Skip Roland  | Opportunity to participate | Mar 20 | 4K   |

Sortable Grids

A · R · I · A



# WAI-ARIA

(Accessible Rich Internet Applications)

... defines a way to make Web content and Web applications more accessible to people with disabilities. It especially helps with dynamic content and advanced user interface controls developed with Ajax, HTML, JavaScript, and related technologies.

<http://www.w3.org/WAI/ARIA/>

# WAI-ATAG 2.0 (Authoring Tool Accessibility Guidelines)

This specification provides guidelines for designing web content authoring tools that are both (1) more accessible to authors with disabilities and (2) designed to enable, support, and promote the production of more accessible web content by all authors.

<http://www.w3.org/TR/ATAG20/>

# WHAT ABOUT DRUPAL?



# DRUPAL IS ACCESSIBLE

As an inclusive community, **we are committed to making sure that Drupal is an accessible tool** for building websites that can also be accessed by people with disabilities.

- Drupal.org Accessibility statement

# DRUPAL IS ACCESSIBLE

Drupal 7 is designed to support the development of sites that comply with [WCAG 2.0](#) and [ATAG 2.0](#).

# ACCESSIBLE DRUPAL THEMES

The #D7AX (or #DAX) hashtag marks themes whose developers actively support accessibility improvements.



# ACCESSIBLE DRUPAL MODULES

Look for the #D7AX (or #DAX) hashtag on the page of each module you download for your site.

**Pathauto**

**Superfish**

**Token**

# ACCESSIBILITY-SPECIFIC MODULES

Drupal modules to make your site more accessible:

**Node Accessibility / Node Accessibility Statistics**

**Accessible Skip Links**

**YouTube Video Accessibility Controls**

**CCK Accessibility**

# “AA” DRUPAL WEBSITE

2013.drupalcamptoronto.org — DrupalCamp Toronto 2013 | Landing July 13 – 14, 2013 @ CSI Annex, Toronto, Canada Reader

News About Contact

drupalcamp<sup>TORONTO</sup> '13

Landing July 13 - 14, 2013  
@ CSI Annex, Toronto, Canada

EVENT INFO COMMUNITY SPONSORS REGISTER



PLATINUM SPONSOR



GOLD SPONSOR



REGISTER Sign up for one or both days

SCHEDULE View session schedule

SPONSOR Support the event & community

## [Vote for Your Favourite Session!](#)

Submitted by [admin](#) on Fri, 2013-07-05 12:55

Session voting is **now open** to registered users! A quick overview of all proposed sessions is available below.

The highest voted sessions will receive more prominent placement in the schedule. Keep an eye on [Twitter](#) and [Facebook](#) too - **retweets** and **likes** for individual session posts will *count towards voting* as well!

[Read more](#)

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Submitted by [admin](#) on Mon, 2013-06-24 15:33

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Please note: the traditional two-step process will be slightly delayed. Due to an issue with PayPal, this registration is *only for the website*. We'll send an update as soon as the PayPal issue is resolved and everyone will be able to *become a paid attendee*. We apologize for any confusion this may cause.

The cost of attending this year's camp will be \$30/day.

[Read more](#)

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# ACCESSIBILITY DEV TOOLS



## Firefox Extensions:

- WAVE Toolbar
- Juicy Accessibility Toolbar



## Chrome Extensions:

- Accessibility Developer Tools

# OTHER VALIDATION TOOLS

## **Web-based Tools:**

IDI Web Accessibility Checker: <http://achecker.ca/checker/index.php>

WebAIM Color Contrast Checker: <http://webaim.org/resources/contrastchecker/>

Photosensitivity Epilepsy Analysis Tool (PEAT): <http://trace.wisc.edu/PEAT>

## **Automated Tools:**

AriaLinter (requires Grunt.js): <https://github.com/globant-ui/arialinter>

A11yLint Brackets Extension : <https://github.com/DuaneOBrien/A11YLint-Brackets>

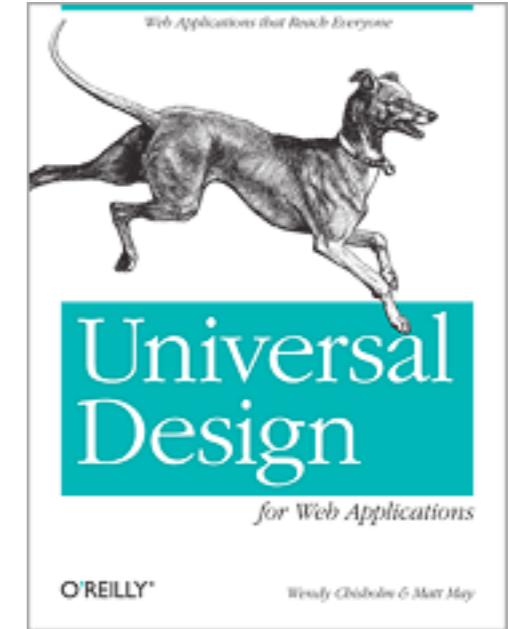
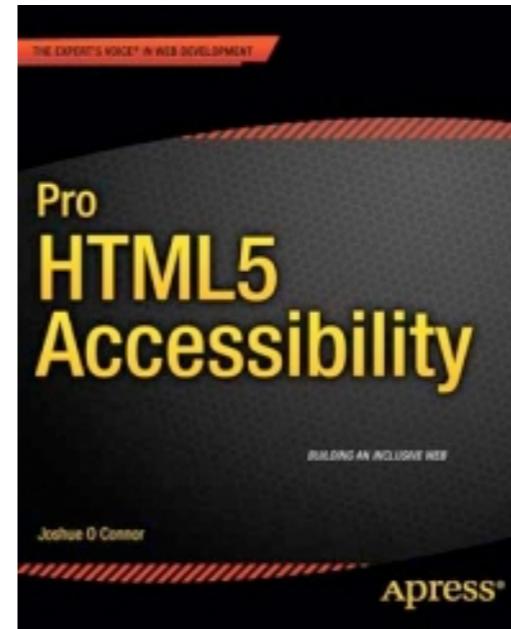
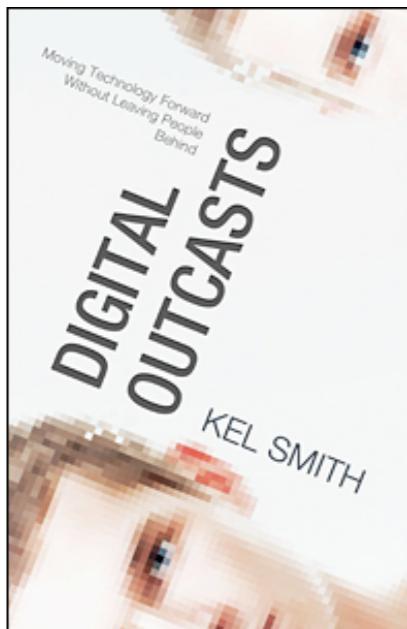
(requires Brackets and optionally brackets-grunt for Grunt.js integration)

## **Checklists:**

Gov. of Canada's WCAG 2.0 Conformance Assessment Tool:

<http://www.tbs-sct.gc.ca/ws-nw/wa-aw/wa-aw-assess-methd-eng.asp>

# RECENT A11Y BOOKS



*Digital Outcasts*, Kel Smith, (Morgan Kaufmann), (2013)

*Accessibility Handbook*, Katie Cunningham, (O'Reilly), (2012)

*Pro HTML5 Accessibility*, Joshua O'Connor, (Apress), (2012)

*Universal Design for Web Applications*, W. Chisholm & M. May, (O'Reilly), (2008)

# DRUPAL GROUPS

## Accessibility

<https://groups.drupal.org/accessibility>



# LOCAL MEET-UPS & EVENTS



Toronto Accessibility  
& Inclusive Design

<http://www.meetup.com/a11yTo/>



Toronto



Guelph

May 28 and 29, 2013  
UNIVERSITY OF GUELPH



<http://www.accessconf.ca/>



Designing Enabling Economies and Policies

<http://deep.idrc.ocadu.ca/>

# ADDITIONAL RESOURCES



[Accessibility Support Website](#)



*inclusive design institute*



**inclusive design research centre**  
OCAD University

# GET STARTED!



- Get educated
- Rally support
- Make a plan
- Become involved

# THANK YOU

# CONTACT ME!

Email: [cispin@therefore.ca](mailto:cispin@therefore.ca)

Twitter: [@cspin](https://twitter.com/cspin)

Skype: [cispinbailey](skype:cispinbailey)

Therefore