



Improving Accessibility, Reducing Risk

Martin Lind

April 3, 2018



Agenda



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Introductions & Accessibility Basics

- Introductions
- Background
- Disabilities 101
- Accessibility in Mind

2

Laws, Guidelines & Enforcement

- Section 508
- ADA
- WCAG 2.0
- Dept of Justice Settlements

3

Training & Best Practices

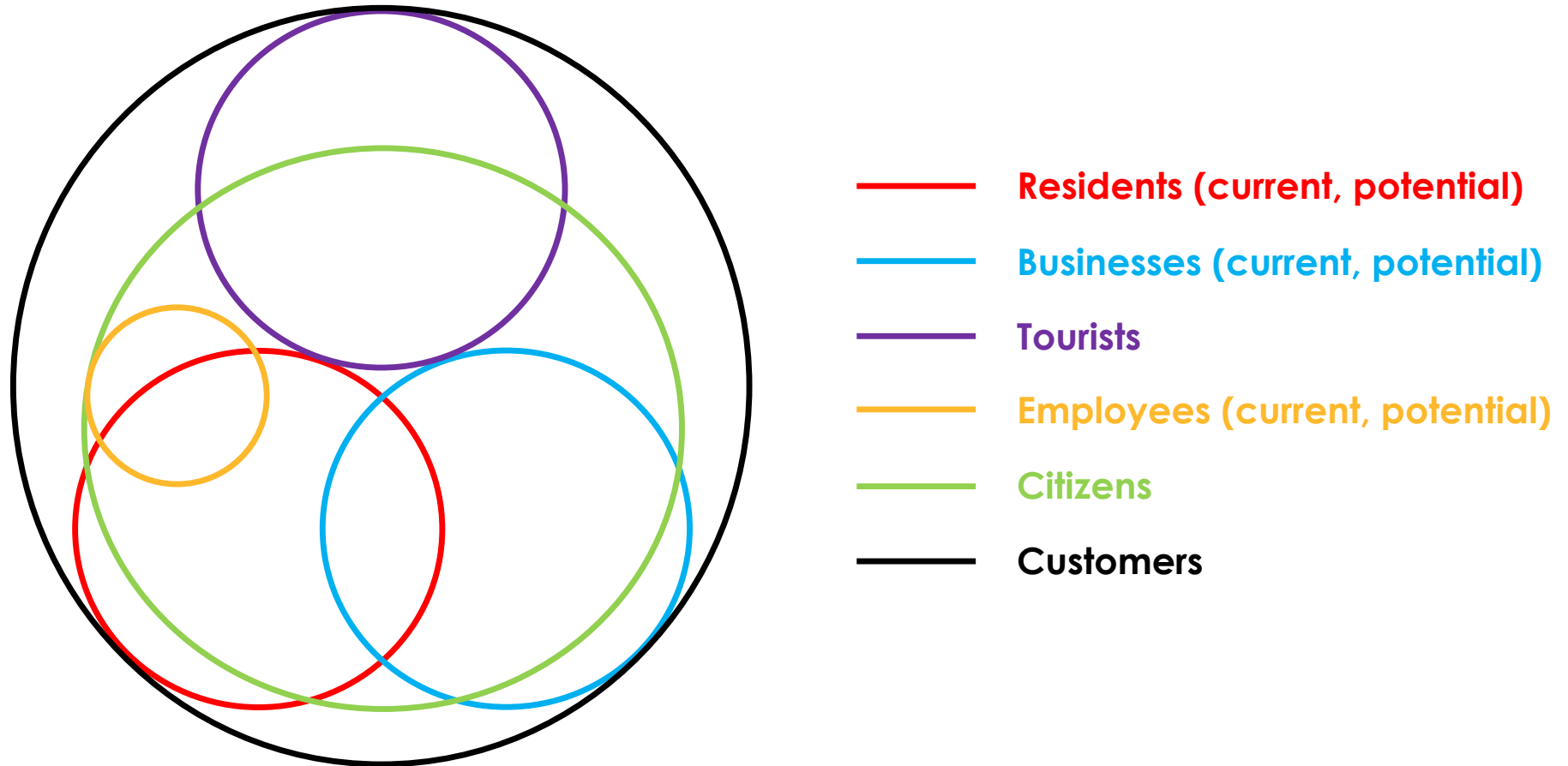
- Headlines & Links
- Images
- Text in Images
- PDF Files

About Vision

- For 20 years, Vision has been a recognized leader in local government website development and content management system software
- Developer of more than 800 state and local websites for agencies across North America
- Unique services include content strategy and web accessibility consultations
- Recently became part of the Granicus family
- Martin runs services and partnerships at Vision
 - 25 years in technology, including 15 years in government technology and consulting

Terminology: “customers”

Your website serves many different types of visitors, each with a different purpose:



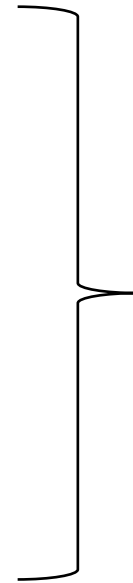
Terminology: “tasks”

Find information

Get answers

Complete actions

Share and socialize
information



“tasks”

What is web accessibility?

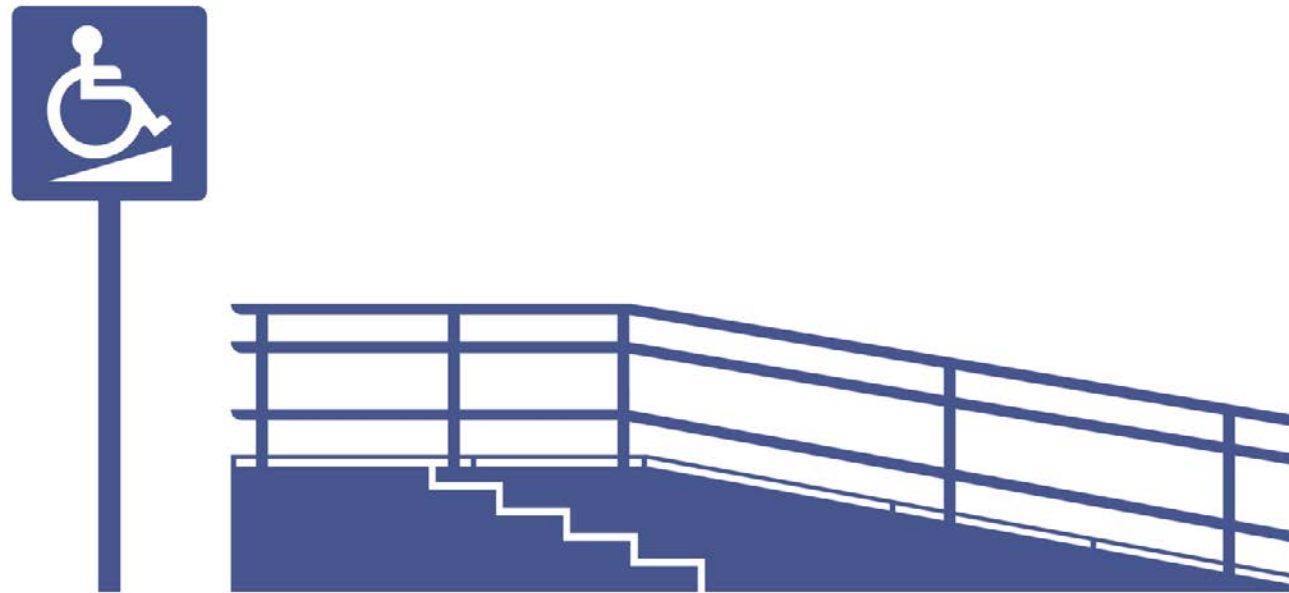
Web accessibility means that people with disabilities can use your site

Making sure that people with disabilities can use the web to:

- PERCEIVE: can't be unavailable to all their senses
- UNDERSTAND: have to be able to get what they read
- NAVIGATE: can get to information regardless of their disability
- INTERACT WITH THE WEB: must be compatible with their assistive technologies

Great resource is [World Wide Web Consortium's \(W3C\) Web Accessibility Initiative](#) and [WebAIM](#)

So web accessibility is just like wheelchair ramps?



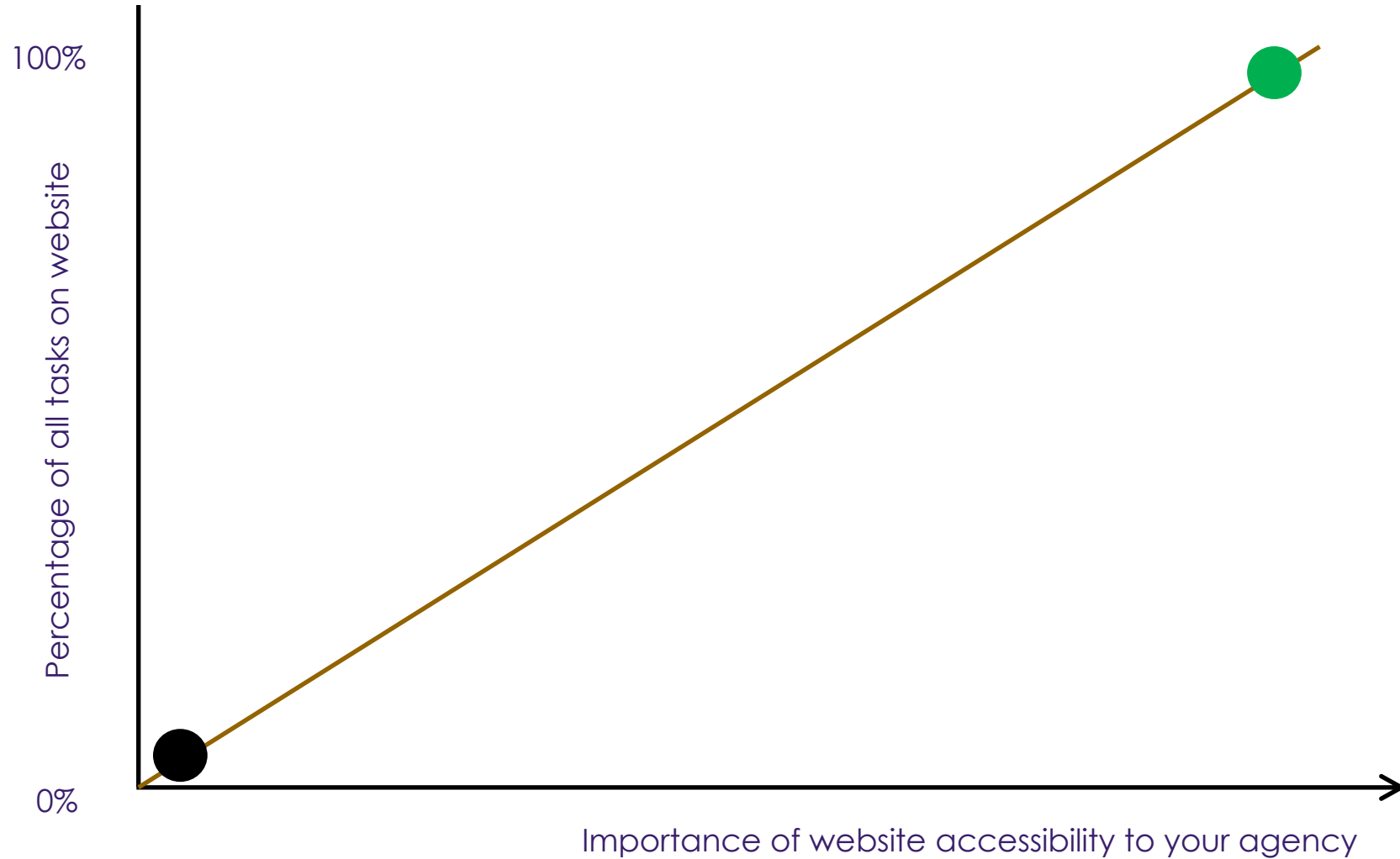
Yes, but dozens of people in your agency can break the ramp with the click of a mouse

Wow – this seems scary and a lot of work

It can be, but everyone wins with an accessible website:

- Better serves your customers, all your customers
- Presents your agency in a positive light
- Makes your life easier if processes that end digitally, start digitally
- Improves your rankings in Google
- It's the law

How accessible does my website have to be?



Accessibility is a spectrum, just like data security

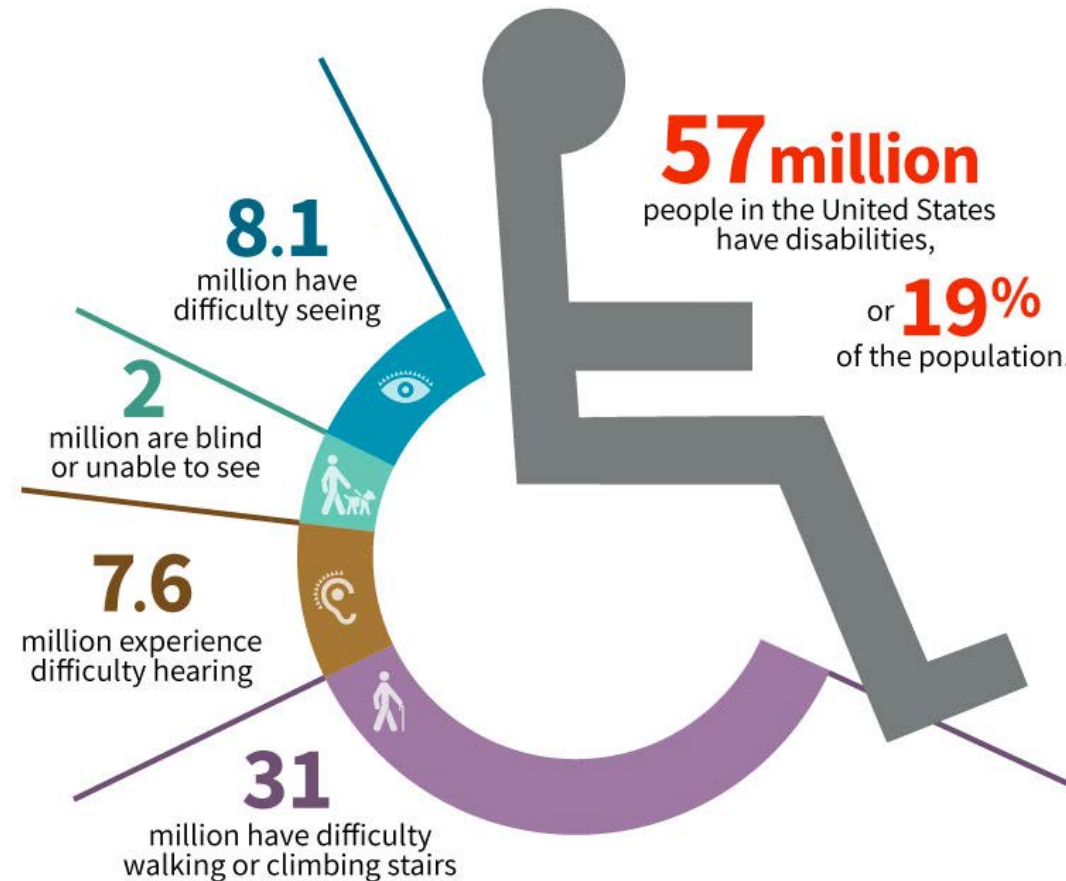
Where you probably
are now

Where you
should be

NON-COMPLIANT

COMPLIANT

Accessible content does not only benefit your blind customers



Source: Harris Blog, "[Beyond Complex: How to Keep Up with Changing ADA Regulations](#)"

Disability prevalence rates increases with age

	Age Range		
Disability Type	21 to 64	65 to 74	Over 75
Sensory	3%	10%	24%
Physical	8%	23%	40%
Cognitive	5%	8%	17%

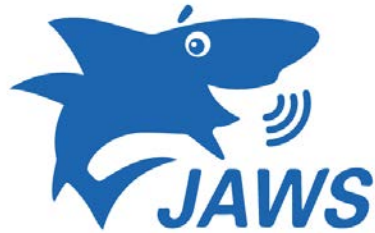
ADA National Network/StatsRRTC, 2006

Assistive Technologies

Assistive technology = a tool that allows someone to function in way that they otherwise would not be able to



Blindness and vision impairment



Screen readers read text aloud, following the structure of the webpage

Refreshable Braille displays push up towards the fingers as the software reads the page

Don't forget about vision impairment (e.g., cataracts and color blindness)

Audio descriptions are a supplement to videos that describes what's going on

“While the next speaker approaches the microphone, Councilmember Jones is seen flipping through the agenda packet.”

Motor and cognitive disabilities

What is cognitive disability?

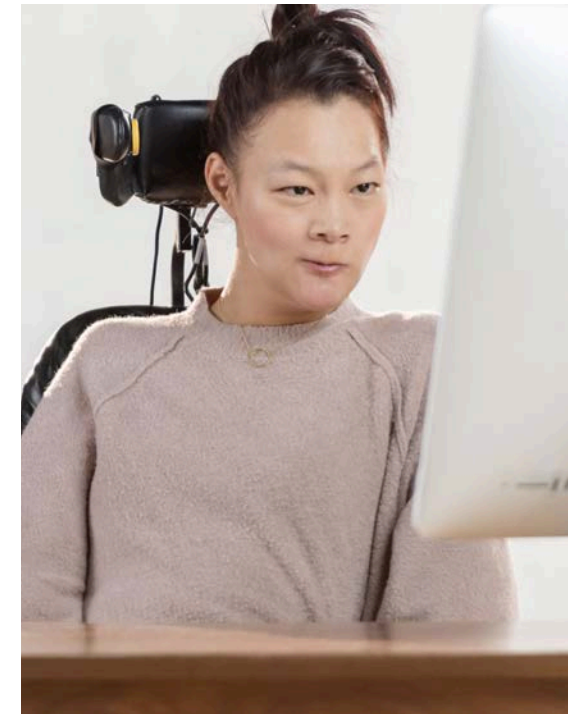
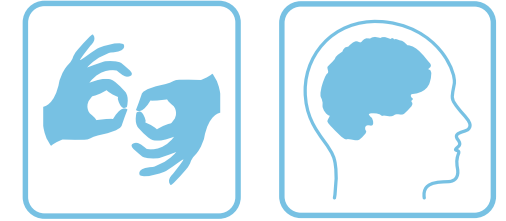
- Autism
- Down Syndrome
- Traumatic brain injury
- Dementia

Assistive technologies:

- Typing with a stick
- Voice activation
- Eye tracking
- Stripping out images and increasing contrast
- Special keyboards for low motor skills

Less severe cognitive conditions:

- Attention deficit disorder (ADD)
- Dyslexia (difficulty reading)
- Dyscalculia (difficulty with math)



Deaf and hearing impairment disabilities

The most common assistive technology is a hearing aid

Transcripts describe what's happening; captions are just what's said

- Can use a “shadow speaker” who describes what's happening live using voice recognition software

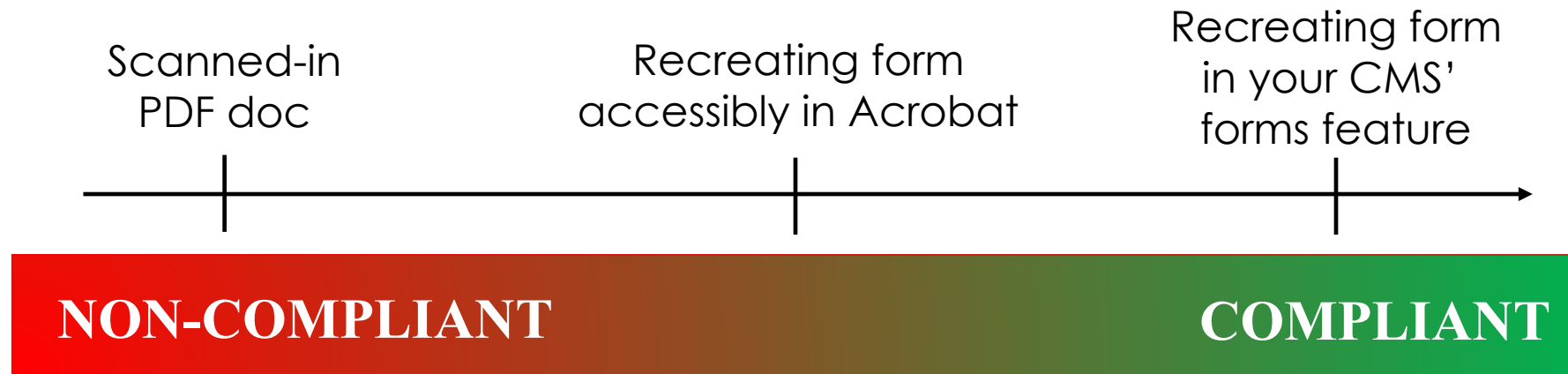
Additional benefits of captions/transcripts:

- Google ranks videos with edited captions higher in search results
- Can watch without audio
- Transcripts helps those who need to translate the video
- Information is better retained if it see video, hear audio and read text

If it's accessible to the deaf and it's accessible to the blind, it's accessible to those who are **deaf AND blind**



Example: filling out a form for a permit



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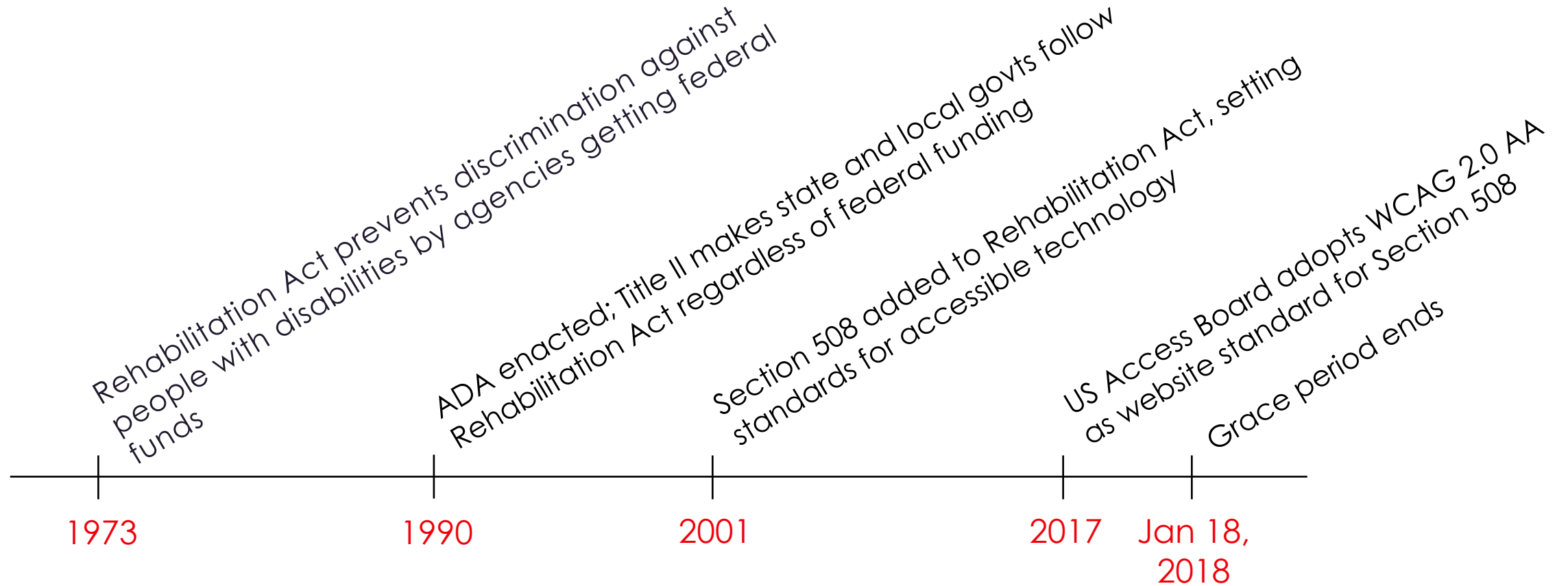
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Timeline of web accessibility in the U.S.



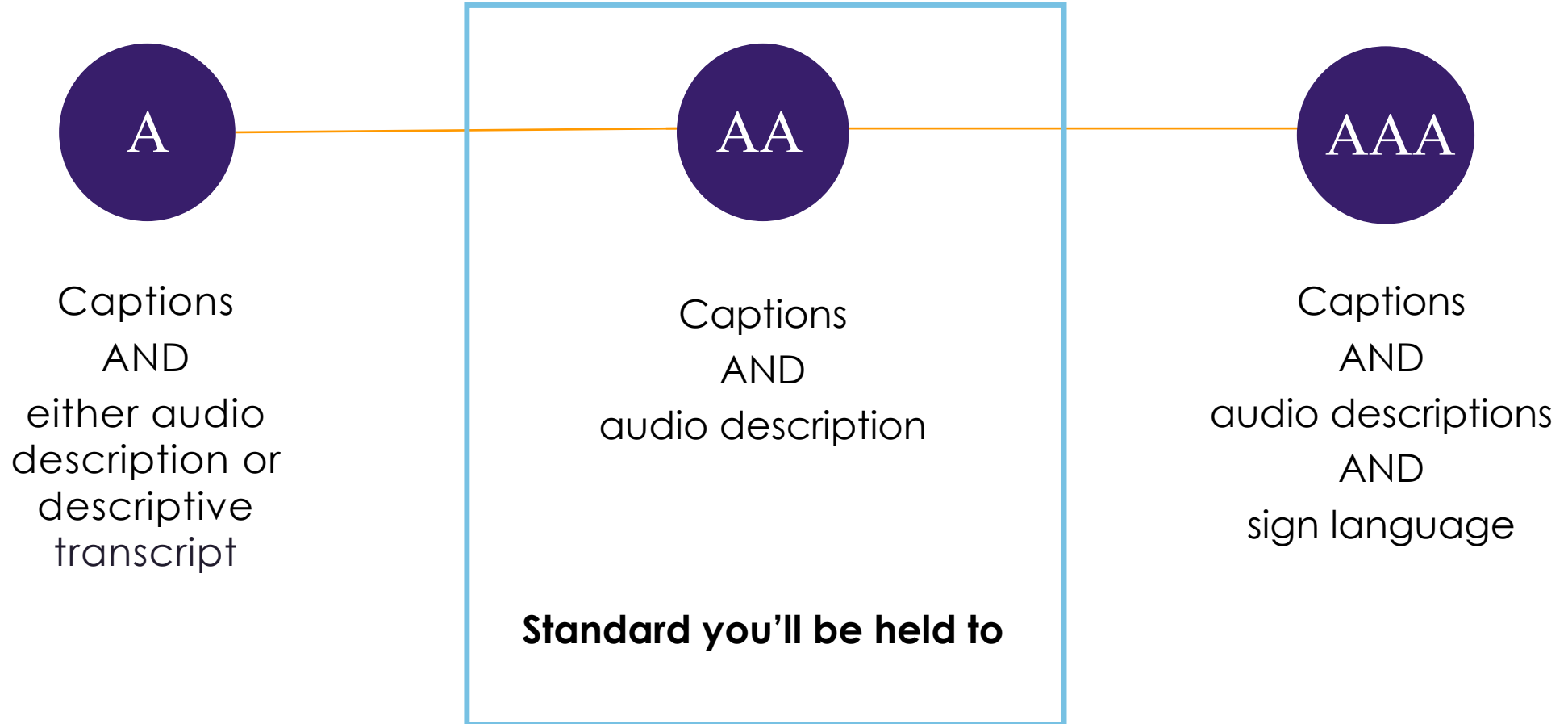
WCAG

Web Content Accessibility Guidelines

- International standard produced by the World Wide Web Consortium (W3C)
- First published in 1999; current standard 2.0 was adopted in 2012 (v2.1 likely released in 2018)
- All standards are available on W3C's website, and explained well on WebAIM's site



Success criteria example: meeting video



The US Department of Justice enforces web accessibility issues

Anyone can file a civil rights complaint with the DOJ and it **must** be investigated

- You don't have to have standing in the jurisdiction to file a complaint

DOJ forces a settlement where the accessibility issue must be fixed

- Often start cases based on a complaint about physical accessibility: "While we're here..."

Private parties can sue agencies for noncompliant websites and violator pays their legal fees

- DOJ can trigger an investigation after hearing about a private party suit

Section “L” of DOJ Settlement with a County in Texas

L. WEB-BASED SERVICES AND PROGRAMS

Within three (3) months of the effective date of this Agreement, the County will:

- Designate an employee as the web accessibility coordinator for the County who will be responsible for coordinating the County's compliance with the requirements of Section L of this Agreement. The web accessibility coordinator shall have experience with the requirements of Title III of the ADA, the Web Content Accessibility Guidelines (WCAG) version 2.0, and website accessibility generally; and
- Retain an independent consultant, approved by the United States, who is knowledgeable about accessible website development, Title III of the ADA, and WCAG 2.0 to evaluate the County's website and any proposed online services for compliance with the ADA and, at minimum, WCAG 2.0 Level A and Level AA Success Criteria and other Conformance Requirements (WCAG 2.0 AA), and who shall be responsible for the annual website accessibility evaluation. The County will bear all costs and expenses of retaining and utilizing this independent consultant, including the costs and expenses of any staff. The County will compensate this independent consultant without regard to the outcome.

With the exception of paragraph 50 (e), below, within six (6) months of the effective date of this Agreement, and annually thereafter, the County will:

- Adopt, implement, and post online a policy that its web pages will comply with WCAG 2.0 AA, published by the World Wide Web Consortium (W3C), Web Accessibility Initiative (WAI), available at www.w3.org/TR/WCAG;
- Distribute the policy to all employees and contractors who design, develop, maintain, or otherwise have responsibility for its websites, or provide website content, technical support, or customer service;
- Provide training to website content personnel on how to conform all web content and services with, at minimum, WCAG 2.0 AA, Title II of the ADA, and the terms of this Agreement;
- Incorporate provisions ensuring that all of the County's webpages comply with WCAG 2.0 AA into the performance evaluations of the web accessibility coordinator and all employees and contractors who design, develop, maintain, or otherwise have responsibility for its websites, or provide website content, technical support, or customer service;
- Within twenty-four (24) months, assess all existing web content and online services for conformance with, at minimum, WCAG 2.0 AA, by: (1) performing automated accessibility tests of its website and all online services, using an automated tool approved by the United States, to identify any accessibility barriers; and (2) enlisting individuals with different disabilities, including at a minimum individuals who are blind, deaf, and have physical disabilities (such as those limiting the ability to use a mouse), to test its pages for ease of use and accessibility barriers;
- Provide a notice, prominently and directly linked from its homepage, instructing visitors to its websites on how to request accessible information. The link shall provide several methods to request accessible information, including an accessible form to submit feedback, an email address, and a toll-free phone number (with TTY) to contact personnel knowledgeable about the accessibility of the website; and
- Provide a notice, prominently and directly linked from its homepage, soliciting feedback from visitors to its websites on how to improve website accessibility. The link shall provide several methods to provide feedback, including an accessible form to submit feedback, an email address, and a toll-free phone number (with TTY) to contact personnel knowledgeable about the accessibility of the website.

Within three (3) months of the effective date of this Agreement, the County will:

- Ensure that its websites and all online services, including those websites or online services provided by third parties upon which the County relies to provide services or content, comply with, at minimum, WCAG 2.0 AA; and
- Assess all proposed online services before they are made available to the public for conformance with, at minimum, WCAG 2.0 AA, by: (1) performing automated accessibility tests, using an automated tool approved by the United States, to identify any accessibility barriers; and (2) enlisting individuals with different disabilities, including at a minimum individuals who are blind, deaf, and have physical disabilities (such as those limiting the ability to use a mouse), to test its pages for ease of use and accessibility barriers.

Costs of DOJ Settlement with Texas county

- Costs of attorney associated with settlement (roughly \$100,000)
- Costs to of independent consultant, approved by the United States DOJ = assume \$200 per hour for 200 hours + expenses (roughly \$50,000)
- Costs to hire a web accessibility coordinator = \$80,000 + recruiting costs + benefits + internal costs (roughly \$125,000 per year)

TOTAL FIRST YEAR = **\$275,000**

TOTAL FOR FIVE YEARS = **\$775,000**

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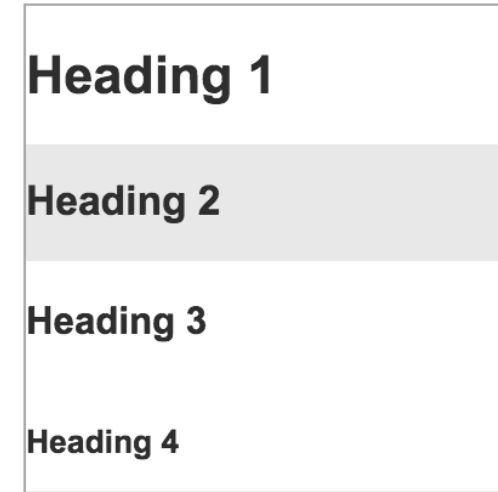
Training & Best Practices

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Biggest Risks, Easiest Fixes

- Headings
- Bullet Points, numbers and tables
- Using color to communicate
- Images
- Documents

Using Headings Properly



- ✔ Headings should be used to label different sections of your content
- ✔ Treat headings like the outline of your page
 - Screen readers can skip from header to header
 - Google uses it to determine content

- ✘ Don't use bold, italics or underline to differentiate headings – screen readers will usually ignore
- ✘ Don't choose the heading number based on the design you like best
- ✘ Don't use Heading 1 <h1> tags in your content; save them for page titles

Example of INACCESSIBLE Headings

<h2> Grants and Scholarships

<h1> How can I apply?

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<h5> For High School Students

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<h5> For College Students

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Example of ACCESSIBLE Headings

<h1> Grants and Scholarships

<h2> How can I apply?

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Lists and Tables

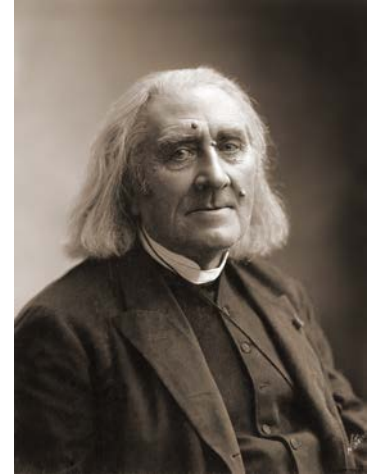
Only use numbers to sequence steps in a process; use bullets for everything else

Screen readers need a top row in each table that describes the content for every column

- Allows every cell to be associated with a row description and a column description

Don't use tables for design

Don't copy/paste bullets, numbers or tables from another application without first putting it in WordPad to strip out formatting; use the CMS's bullets/numbering feature to make sure it's accessible



Franz Liszt



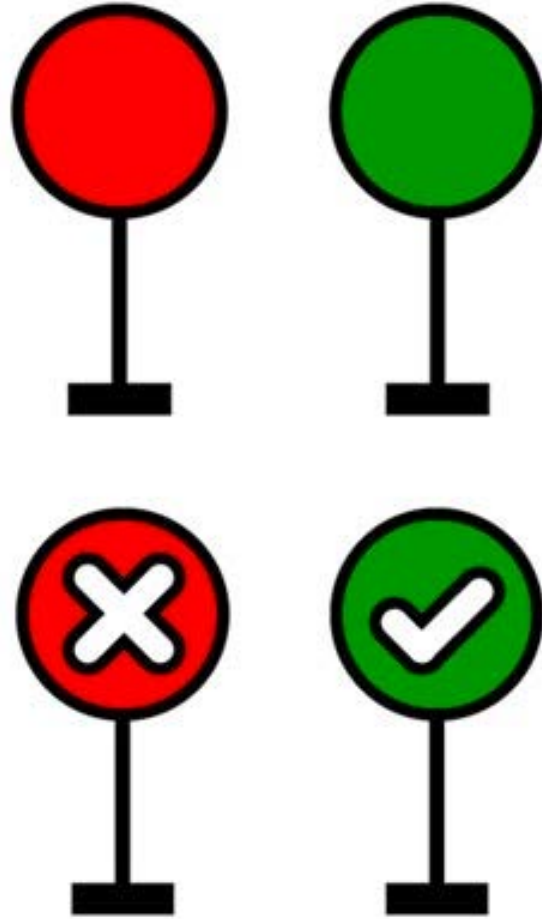
INGO by Ikea

How do color blind drivers know when to stop?



Photos: [iStock](#), NoCoffee deuteranopia filter

Don't Only Use Color to Communicate



Images

An image is meaningless to a blind person because screen readers can only read the text

Instead, screen readers look for alternative text (aka “alt text” or “alt tag”)

- Bonus: alt tags are also displayed if an image cannot load



Alt text is used by Google to determine what an image is of, so proper use will improve placement in search results

Decorative Images

You don't need to add alt text to an image that is purely decorative

Your CMS might take a blank value, but otherwise type "" into the alt text field and screen readers will skip it



Los Angeles Times

TRENDING TOPICS: MEMO DROP SUPER BOWL L.A. TRAFFIC EGYPTIAN TOMB DGA AWARDS

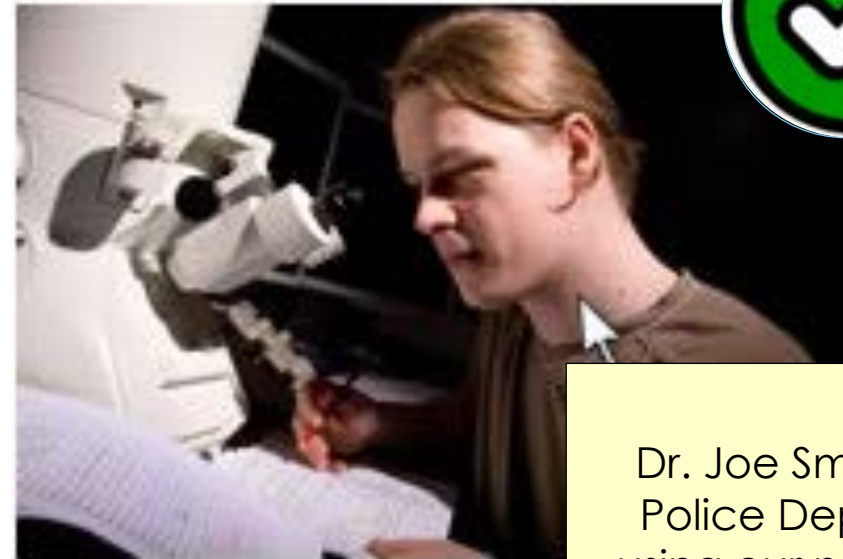


Photo: [CBS](#)

Context is everything

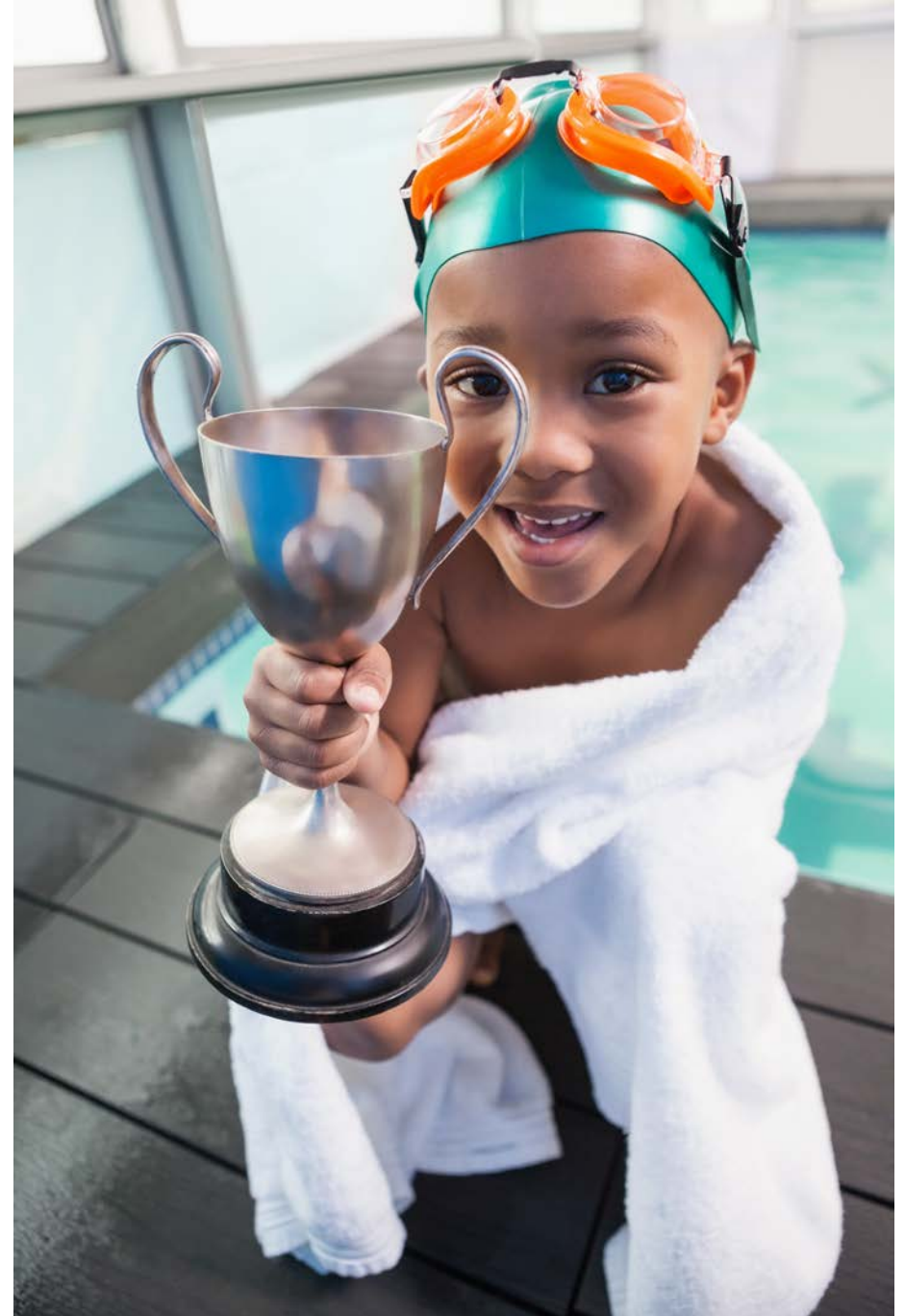


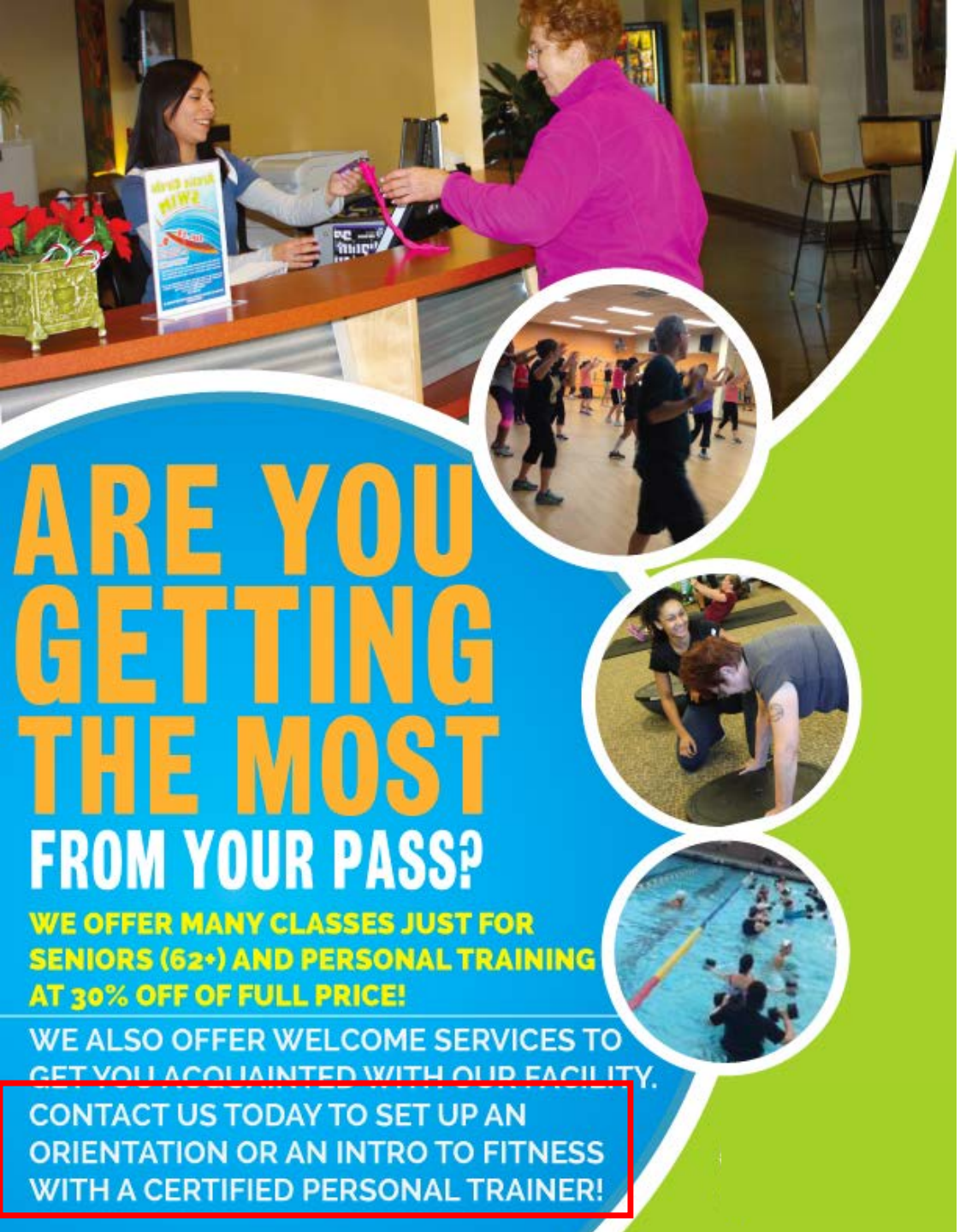
Forensics lab



Dr. Joe Smith of the
Police Department
using our new XT1000
microscope

What is the proper alt text?





ARE YOU GETTING THE MOST FROM YOUR PASS?

WE OFFER MANY CLASSES JUST FOR SENIORS (62+) AND PERSONAL TRAINING AT 30% OFF OF FULL PRICE!

WE ALSO OFFER WELCOME SERVICES TO GET YOU ACQUAINTED WITH OUR FACILITY.

CONTACT US TODAY TO SET UP AN ORIENTATION OR AN INTRO TO FITNESS WITH A CERTIFIED PERSONAL TRAINER!

Unless you're careful, text within images can segregate your customers

ALT TAG

Ages 62 and older get 30% discount on personal training

LONG DESCRIPTION

Are you getting the most from your pass? We offer many classes just for seniors (62+) and personal training at 30% off of full price. We also offer welcome services to get you you acquainted with our facility.

Why not keep it as an image?

The color contrast is probably not within guidelines

All caps is not easy to read (and comes across as **screaming!**)

The text cannot be enlarged by zooming in on a browser or pinching on your mobile device without degrading the quality of the and pixelating the text

The image will be hard to read on a mobile device because text embedded into images cannot word-wrap and reformat dynamically to fit different screens

Can't enforce style standards

Accessibility and QA scanners can't find problems

Can't be translated automatically

Accessibility for PDFs

Use your CMS instead:

- it is accessible to a screen reader
- it is responsive to your visitors who use mobile devices
- the font can get bigger or smaller depending on your customer's preferences
- your CMS and Google can index it easier
- it's easier to update
- easier to enforce style guidelines

Convert scanned docs to web pages by using Optical Character Recognition (OCR), but proof it well

- Screen readers have light-weight OCR built in

If you insist on keeping it a PDF, use Acrobat Pro to create fillable forms or go back to the original Word document, format it and create a PDF that's accessible ([WebAIM's document accessibility guide](#) and [Adobe Blog on accessibility](#))

Bringing it all together



Web accessibility is no longer an option

It's the law for all government websites, and actually has been for a long time

Assume WCAG 2.0 AA is the standard you should use

Everyone who edits content on your website **MUST** be trained in accessibility best practices

By keeping Accessibility In Mind, you can better serve your website visitors and improve your Google rankings



Questions?



Thank you!

Martin Lind
mlind@visioninternet.com