Measure Your Accessibility Health

Dawn Watkins | Siteimprove

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Objectives

- Getting Started
- Automated Testing
- Manual Testing
- Usability Testing
- Reporting

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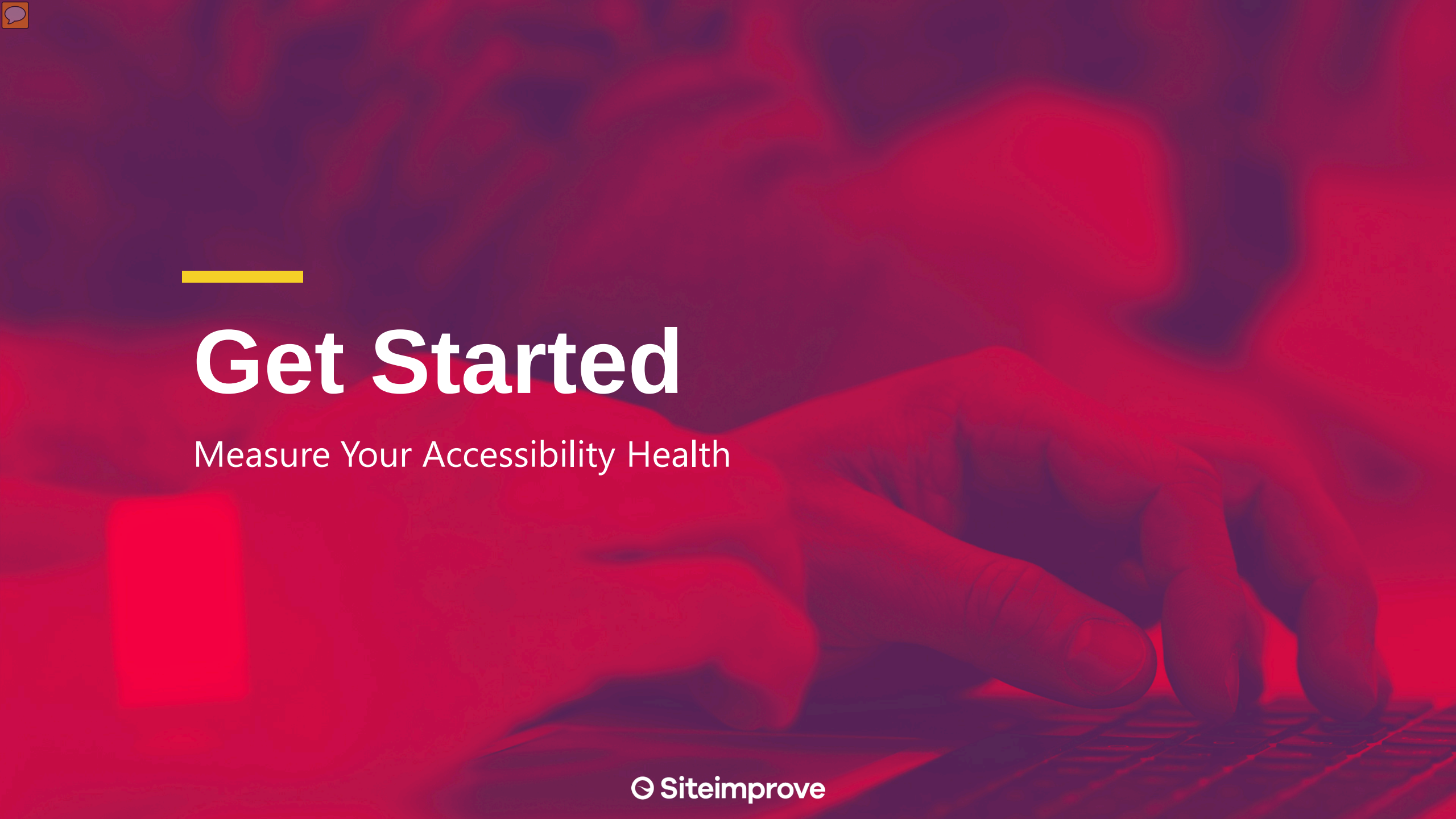

Get Started

Measure Your Accessibility Health

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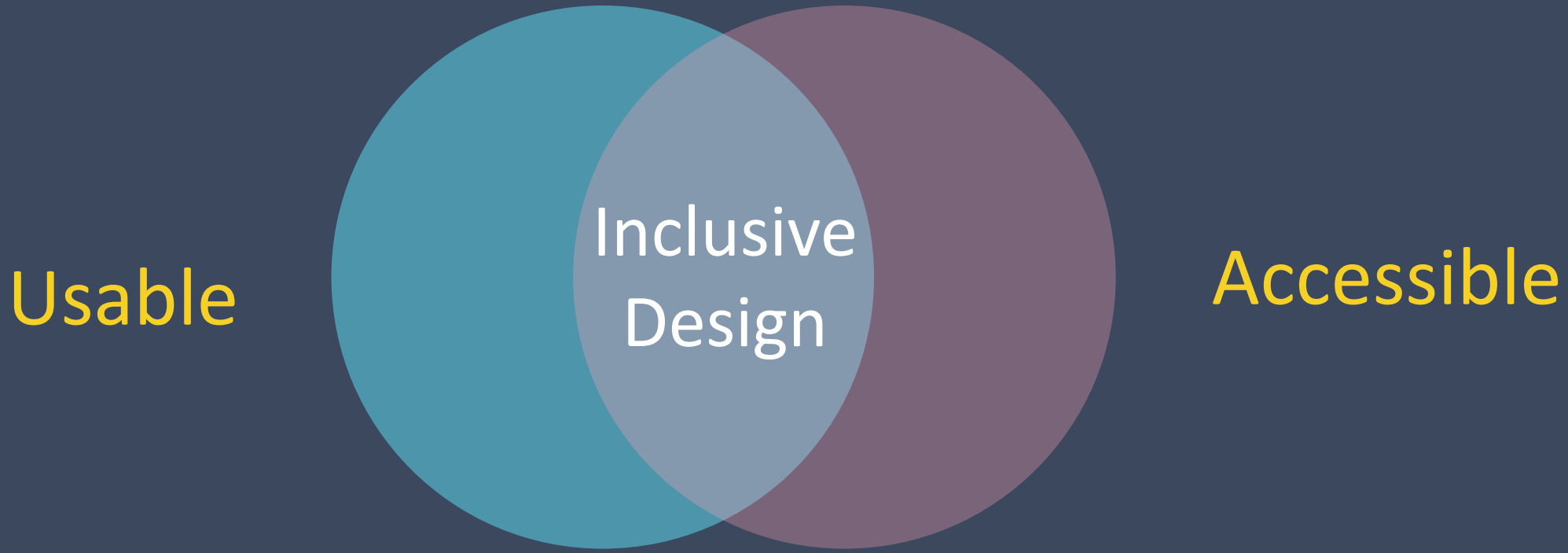
Focus on accessibility

after four weeks away they still had nothing new to offer.
ESTIMATES

Create Inclusive Design



Global Legislation

- **Australia -** The Disability Discrimination Act
- **Canada -** Canadian Human Rights Act of 1977 and The Canadian Charter of Rights and Freedoms
- **European Union –** Directive (EU) 2016/2102
- **United States of America**
  - Civil Rights
  - Procurement Laws
  - Technology Laws
- **UN Declaration and Convention**

Web Content Accessibility Guidelines

WCAG 2.0

Principles	Guidelines	Level A	Level AA	Level AAA
1. Perceivable	1.1 Text Alternatives 1.2 Time-based Media 1.3 Adaptable 1.4 Distinguishable	9	5	8
2. Operable	2.1 Keyboard Accessible 2.2 Enough Time 2.3 Seizures 2.4 Navigable	9	3	8
3. Understandable	3.1 Readable 3.2 Predictable 3.3 Input Assistance	5	5	7
4. Robust	4.1 Compatible	2		

Roles

Leadership
Procurement
Champion
Project Management
Designer
Communications/Marketing
Content Contributors
Developers
Quality Control (QA)

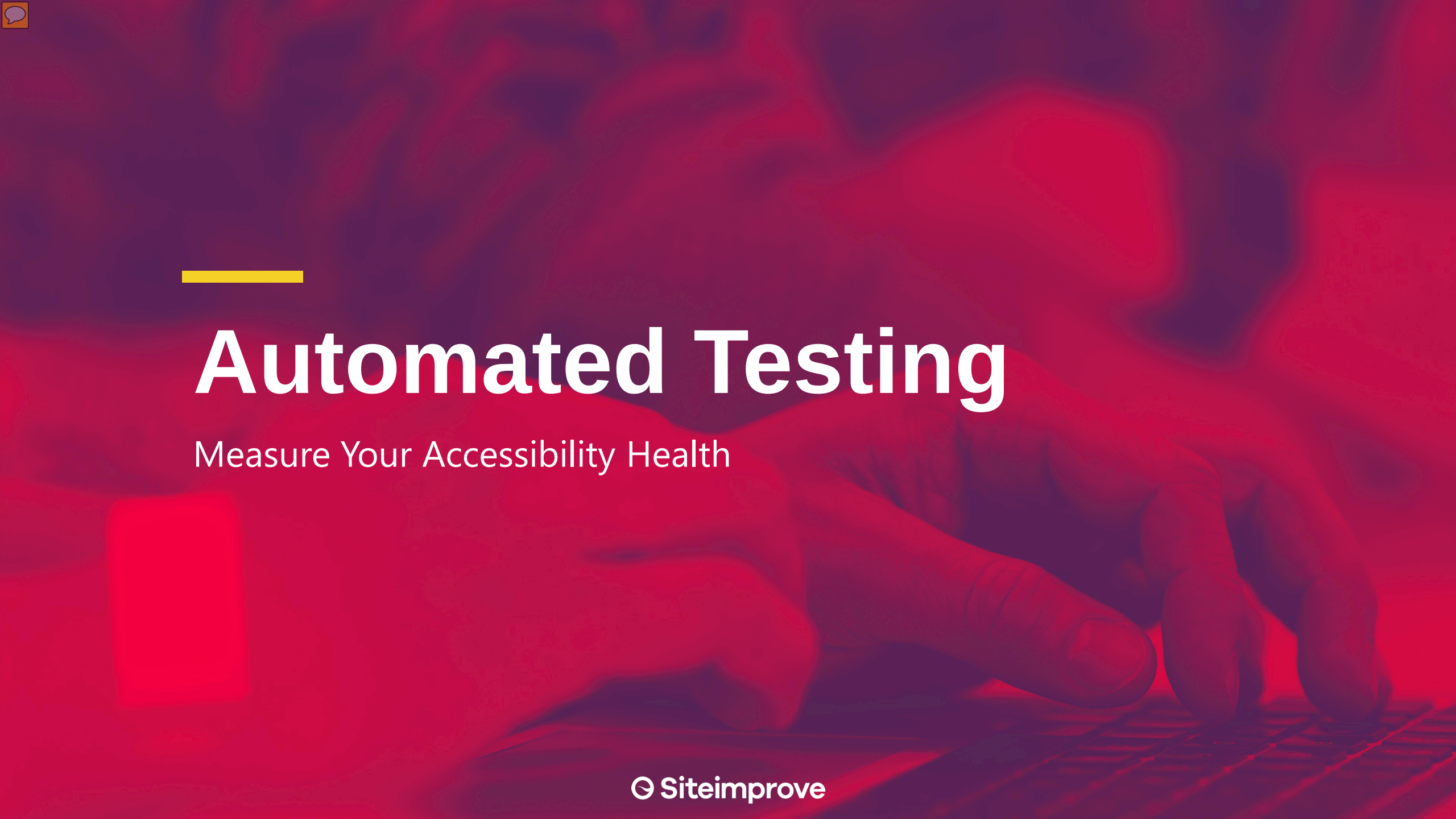
Where is Accessibility

HTML

ARIA

CSS

WCAG


Automated Testing
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Automated Testing

- Enterprise Tools
- Online Tools
- Browser extensions
- Desktop Applications

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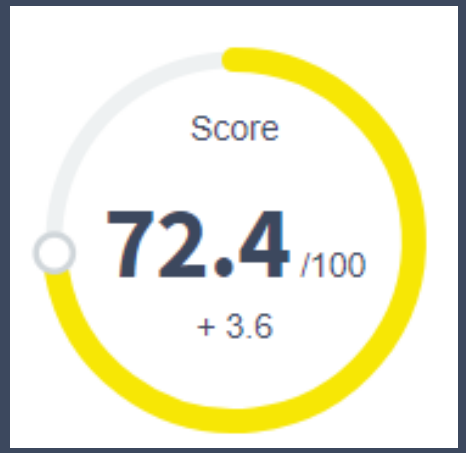
Features of the Platform

- Quality Assurance
- Accessibility
- SEO
- Analytics
- Response
- Policy

Siteimprove Intelligence Platform

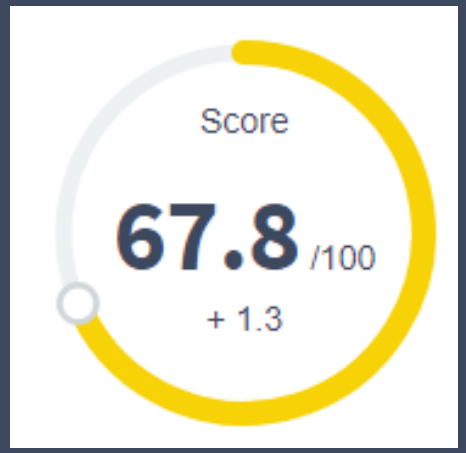
Siteimprove provides on-going, real time WCAG 2.0 Accessibility monitoring through its Intelligence Platform.

Digital Certainty Index

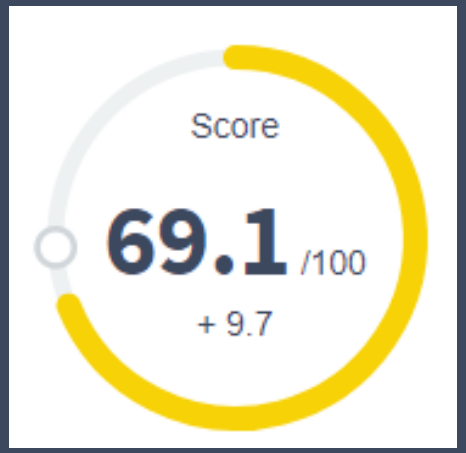


Quality Assurance

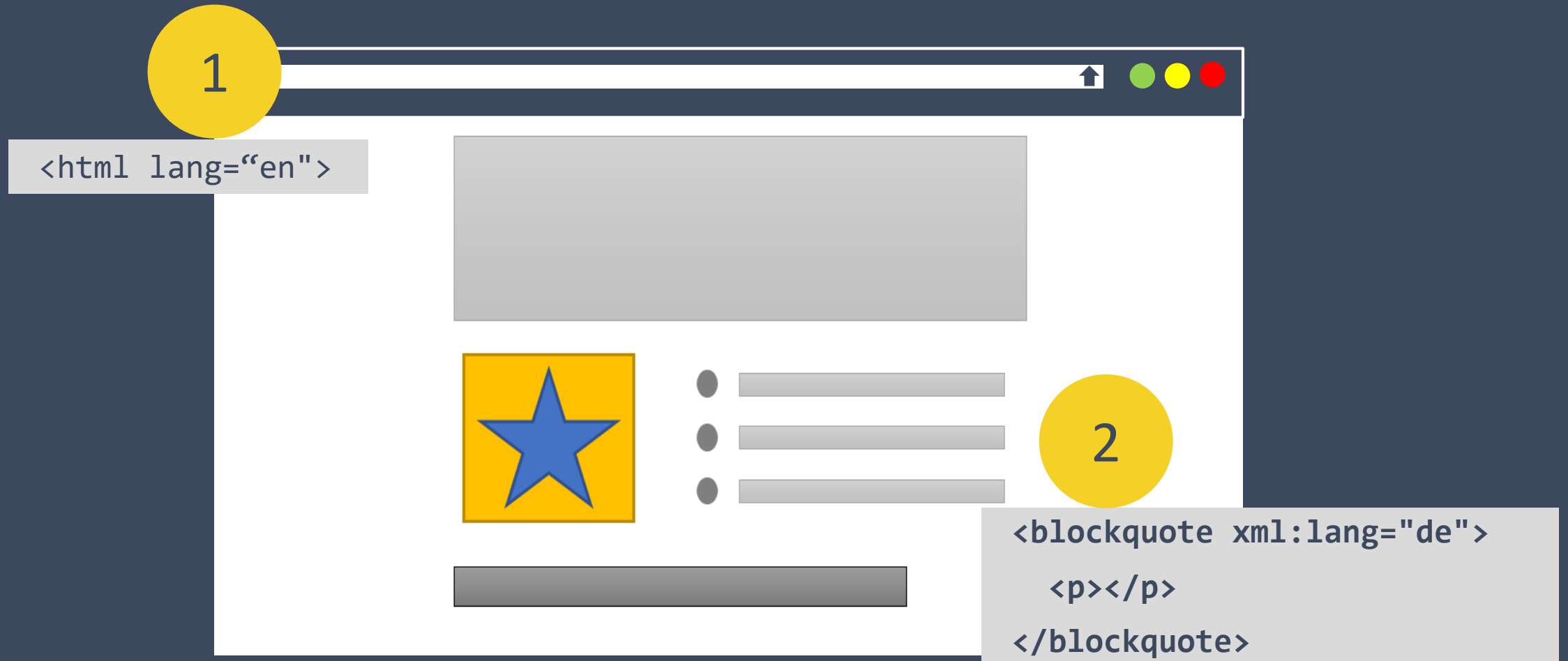
Accessibility



SEO



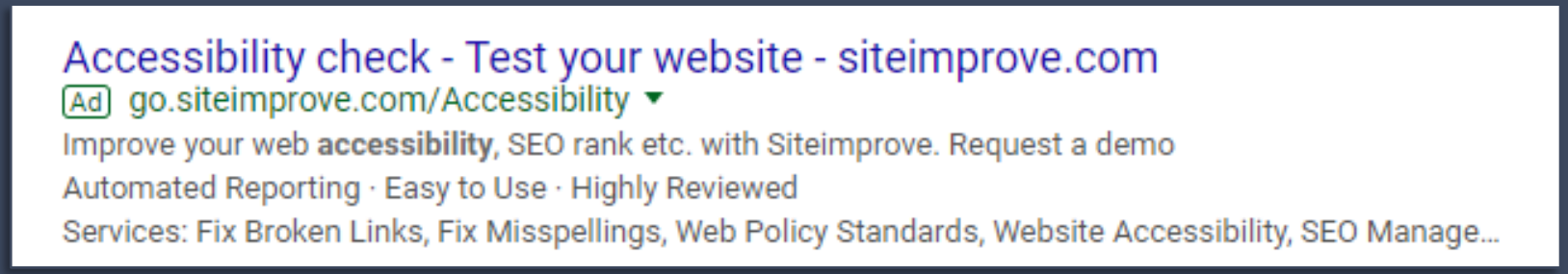
Language Notification



Page Titles

Important for:

- **usability,**
- **search engines optimization, and**
- **sharing.**



Headings

<h1> Headings </h1>

Headings communicate the organization of the content on the page. Web browsers, plug-ins, and assistive technologies can use them to provide in-page navigation.

<h2>Heading ranks</h2>

SHARE

Nest headings by their rank (or level). The most important heading has the rank 1 (`<h1>`), the least important heading rank 6 (`<h6>`). Headings with an equal or higher rank start a new section, headings with a lower rank start new subsections that are part of the higher ranked section.

Skipping heading ranks can be confusing and should be avoided where possible: Skipping heading ranks can be confusing and should be avoided where possible: Make sure that a `<h2>` is **not** followed directly by an `<h4>`, for example. It is ok to skip ranks when closing subsections, for instance, a `<h2>` beginning a new section, can follow an `<h4>` as it closes the previous section.

<h3>Exception for fixed page sections</h3>

SHARE

In fixed sections of the page, for example in sidebars, the heading ranks *should not* change depending on the ranks in the content area. In those cases, consistency across pages is more important.

<h2>Organize passages of text</h2>

SHARE

In the following example, headings are used to only organize passages of text on a page, for example the main content:

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Readability

Summary	Value
Total sentences	279
Total words	2941
Average words per Sentence	10.54
Words with 1 Syllable	1845
Words with 2 Syllables	675
Words with 3 Syllables	300
Words with 4 or more Syllables	121
Percentage of word with three or more syllables	14.31%
Average Syllables per Word	1.56
Gunning Fog Index	9.94
Flesch Reading Ease	64.42
Flesch-Kincaid Grade	6.89

- Total Sentences
- Words per Sentence
- Syllables per Word
- Complexity of Content

Using Color

Low Contrast #FFFF00 and #FFFFFF Not Compliant 1.07 Ratio	High Contrast #OA34EO and #FFFF00 Compliant 7.58 Ratio
Low Contrast #FF8000 and #FFFFFF Not Compliant 2.52 Ratio	High Contrast #757575 and #FFFFFF Compliant 4.61 Ratio

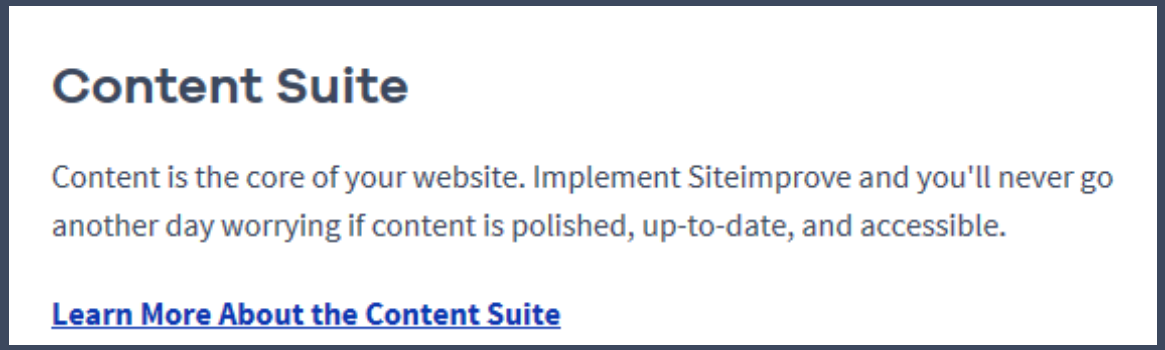
HTML Example: Link

Web Address

Location

```
<a href="https://www.webpage.com/" target="_blank">
Visit our contacts page.</a>
```

Descriptive Text



Distinctive Links

Accessibility Tips for Designers

Intro text as a teaser to get you to be interested enough in the content to click to the full articles.

Read More

How to Understand Accessibility

Intro text as a teaser to get you to be interested enough in the content to click to the full articles.

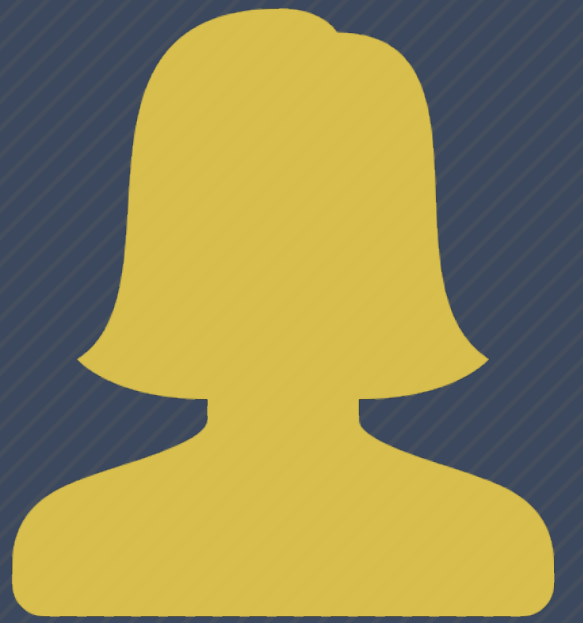
Read More

Make Accessibility a Priority

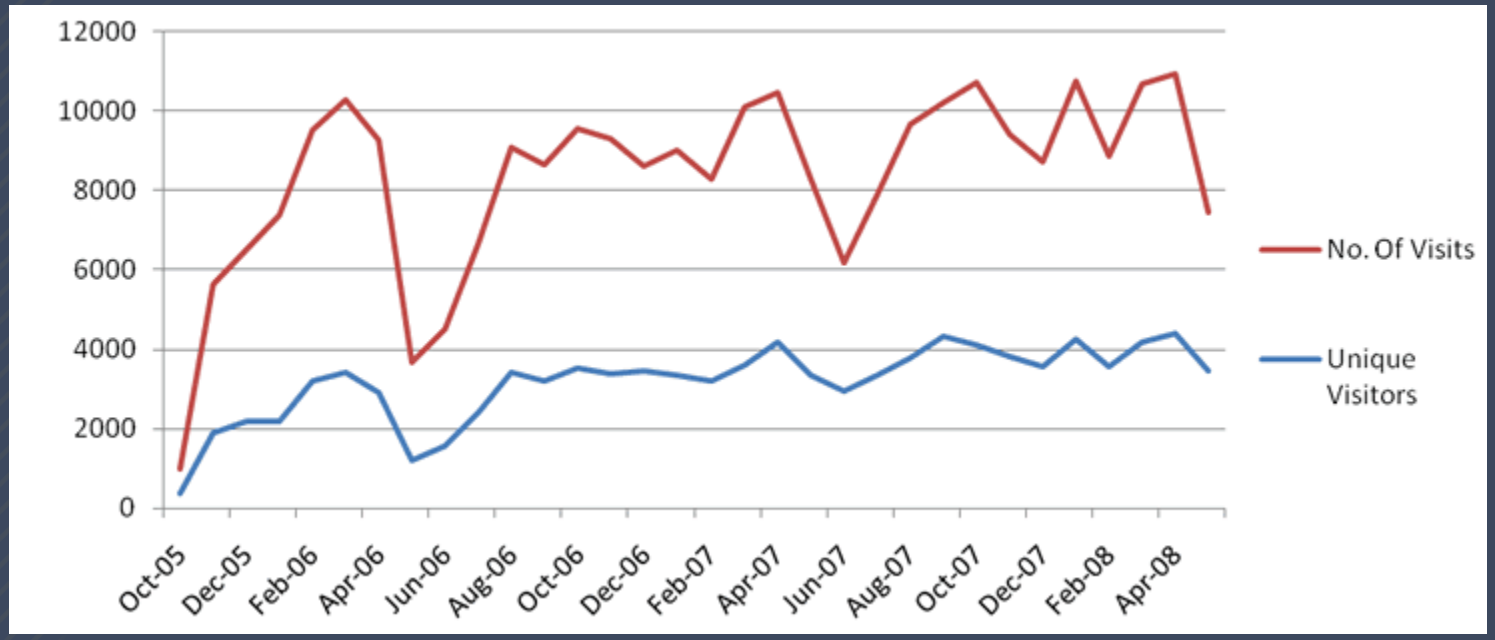
Intro text as a teaser to get you to be interested enough in the content to click to the full articles.

Read More

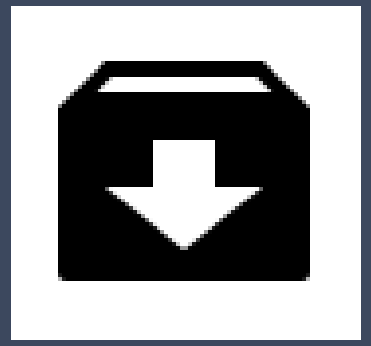
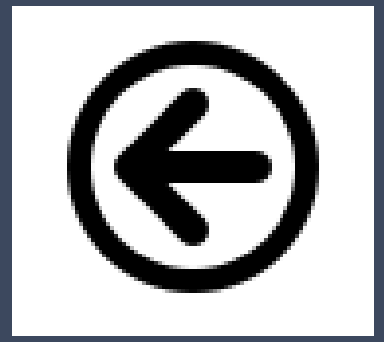
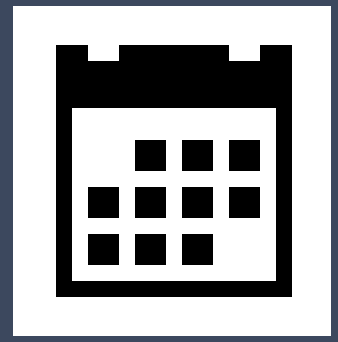
Informative Images



Ms. Lamar



Functional Images

Color Contrast

Data Tables

```
<table>
 <tr>
  <th>Month</th>
  <th>Savings</th>
 </tr>
 <tr>
  <td>January</td>
  <td>$100</td>
 </tr>
</table>
```

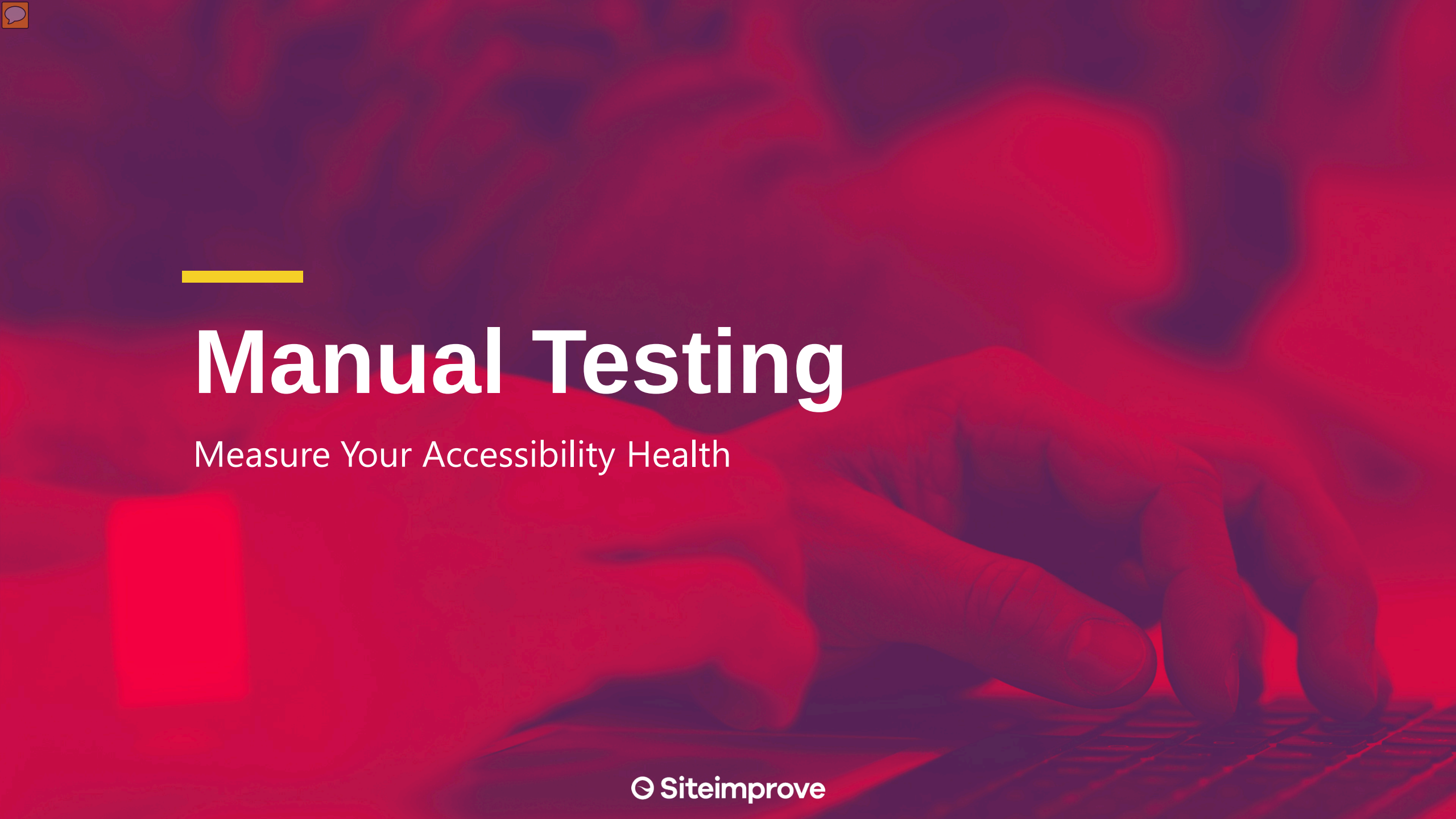
Caption: This table gives information on city, state and zip code.

City	State	Zip
Lawton	Oklahoma	73501
Austin	Texas	78756
Minneapolis	Minnesota	55432

No Coding Errors

- Your website has no major code errors.
- How to achieve:
  - Ensure HTML elements have complete start and end tags
  - Nest all HTML elements correctly
  - Use unique IDs
  - Check that HTML elements don’t contain duplicate attributes

- Tool: W3C Markup Validation Service


Manual Testing
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Manual Testing

- Content Analysis
- Browser Manipulation
- Hardware Manipulation
- Form Inspection

Web Accessibility Advanced

Content Review

- Shapes
  - Example: Click the small round button
  - Try: Click on the accept button
- Location on the page
  - Example: Click the button on the right
  - Try: Click on the button labeled next
- Sounds
  - Example: Begin when you hear the ping
  - Try: Begin when you are prompted (includes visual and sound)

Evaluation Tools Used

1. WebAIM's Wave
2. HTML Code Sniffer
3. Siteimprove Chrome Checker
4. Fangs Screen Reader Emulator
5. NoCoffee Vision Simulator
6. Pauljadam Bookmarklets
7. Colorzilla
8. Accessibility Color Wheel
9. Color Contrast Analyzer
10. Zoom Text Only
11. W3C Markup Validation Service

Color to Convey Meaning

Name (required)

Name*

Status (optional)

Favorite Food

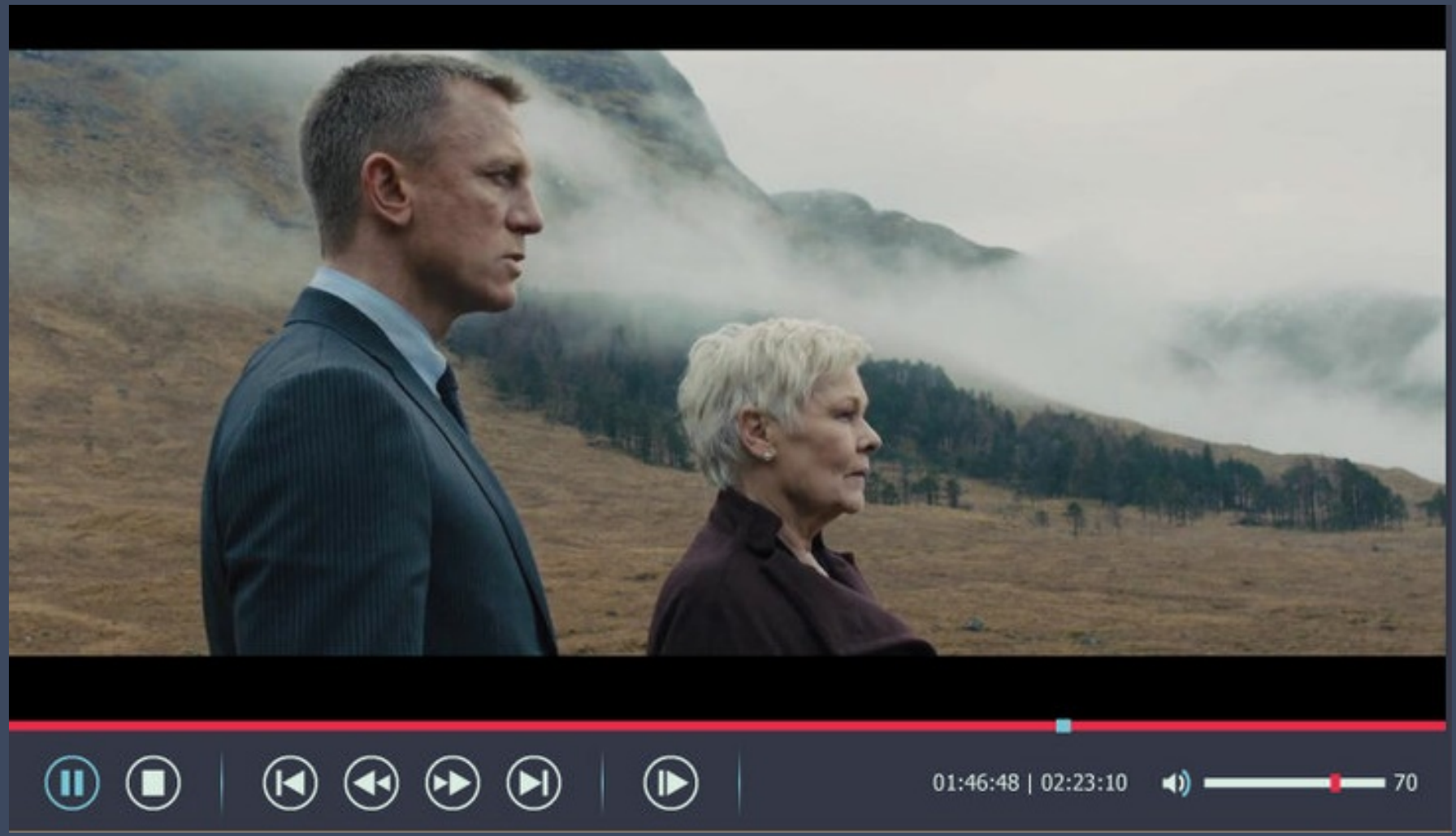
Audio and Video Accessibility

- Transcripts
- Closed captioning
- Audio descriptions

Note:

Do not design content that is known to cause seizures.

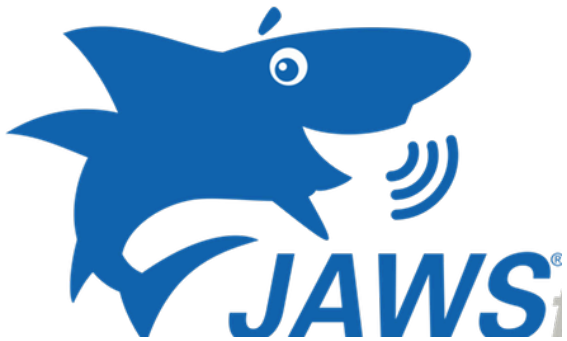
Media Player



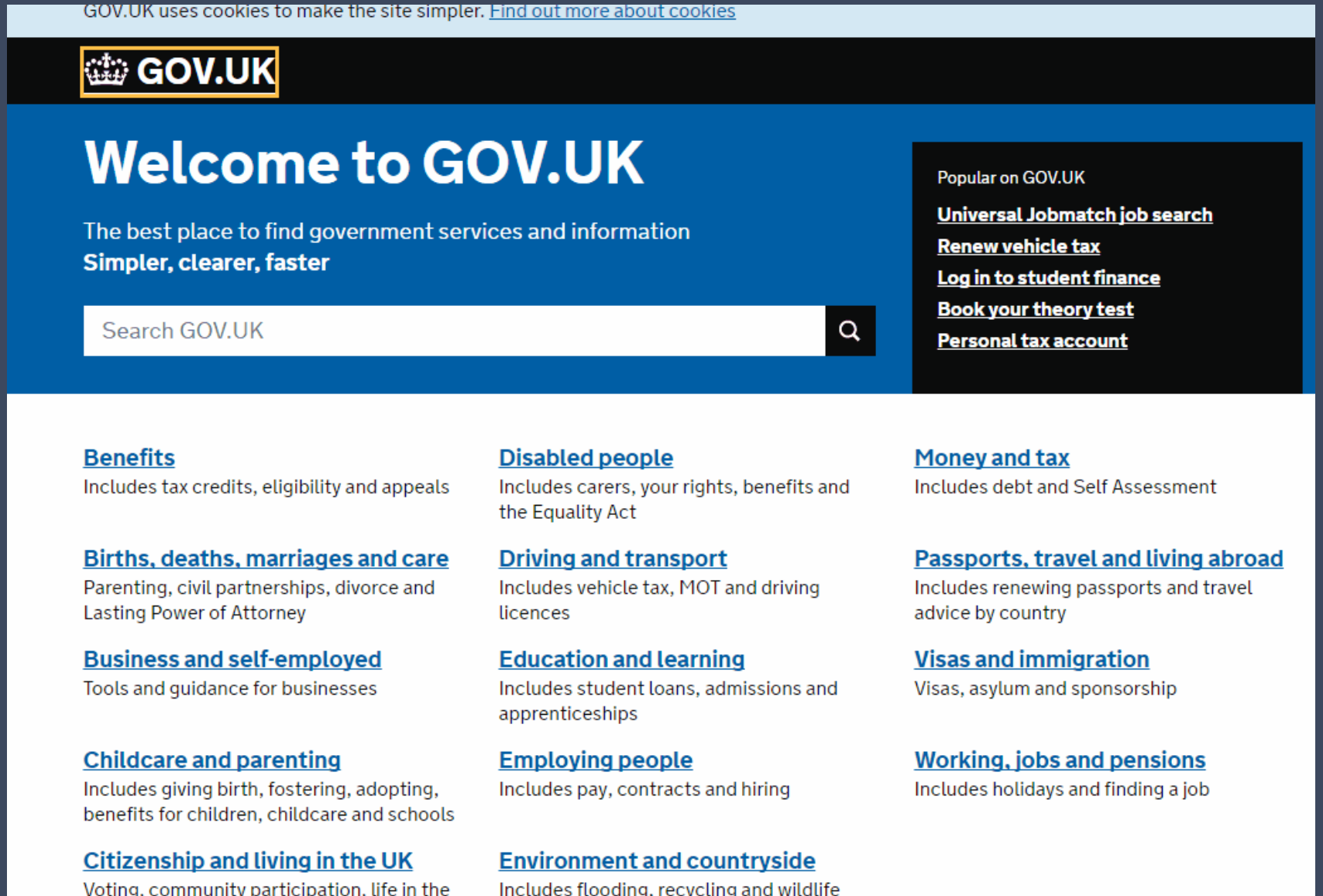
Assistive Technology Testing

- Tab order
- Use shortcut keys to test:
  - Headings,
  - Links, and
  - Lists.
- Make sure all elements can be accessed.
- JavaScript event handlers
- No actions require a mouse

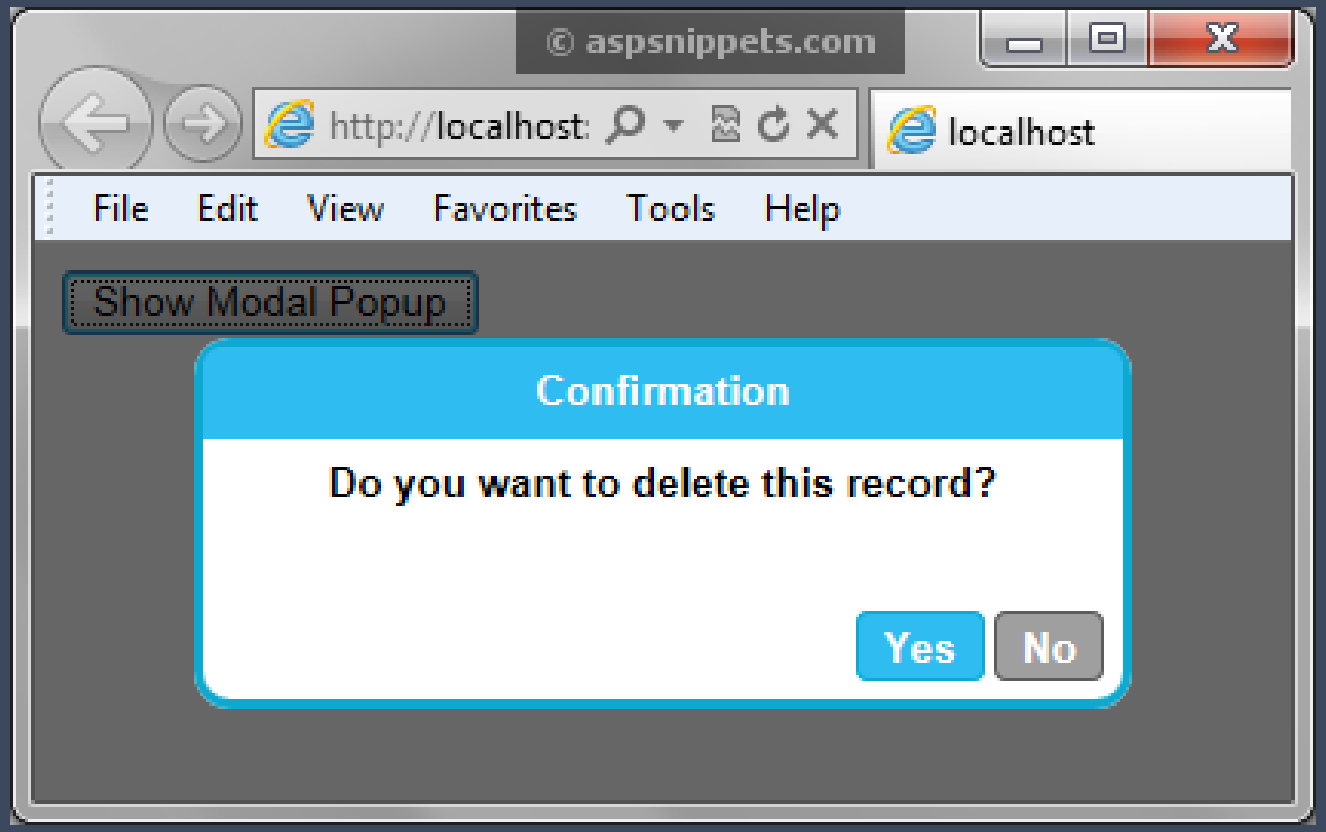
Screen Readers



Keyboard Interactions

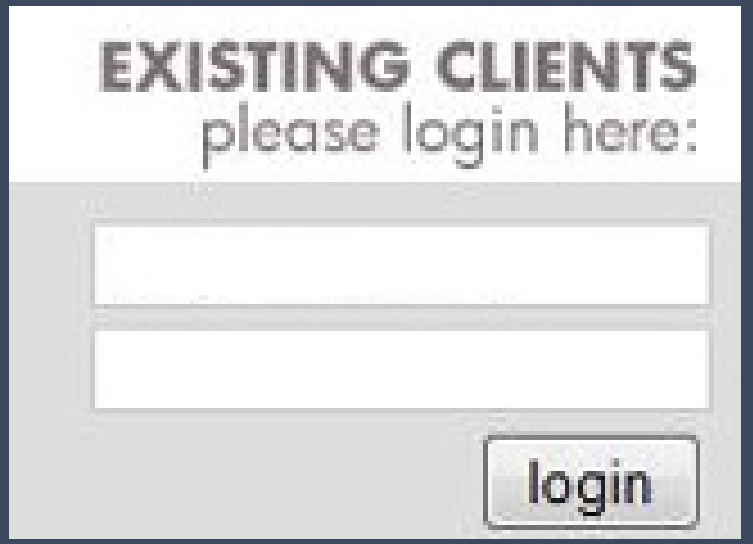


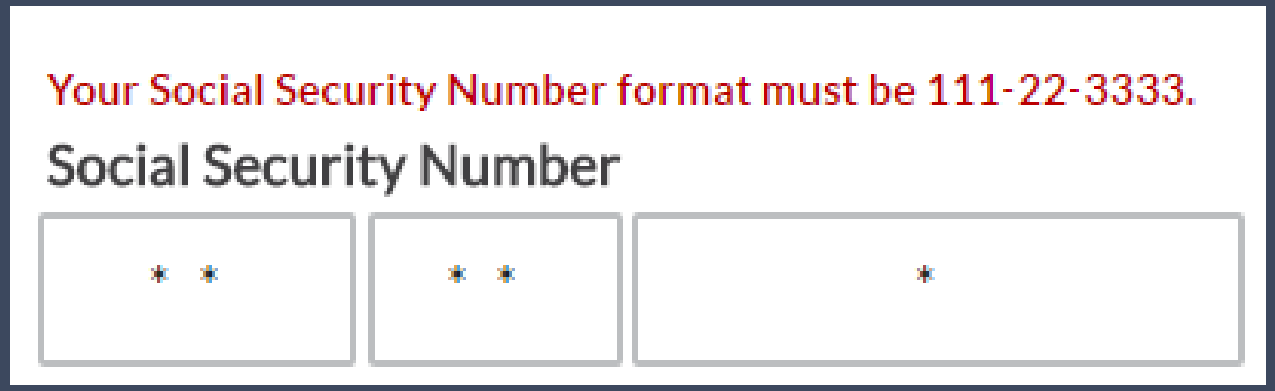
Caution: Modal or Pop-up Boxes



Forms Fields

- Clearly Labeled Elements
- Instructions & Input Type
- Helpful Suggestions
- Prevent Errors
- Best Layout





Widgets and Plug-ins

Hardware Manipulation

- Turn off images
- Turn off sound
- Vary font size (zoom up to 200%)
- Change screen resolution and resize window
- Change display color to gray scale
- Tab through the page (unplug mouse)

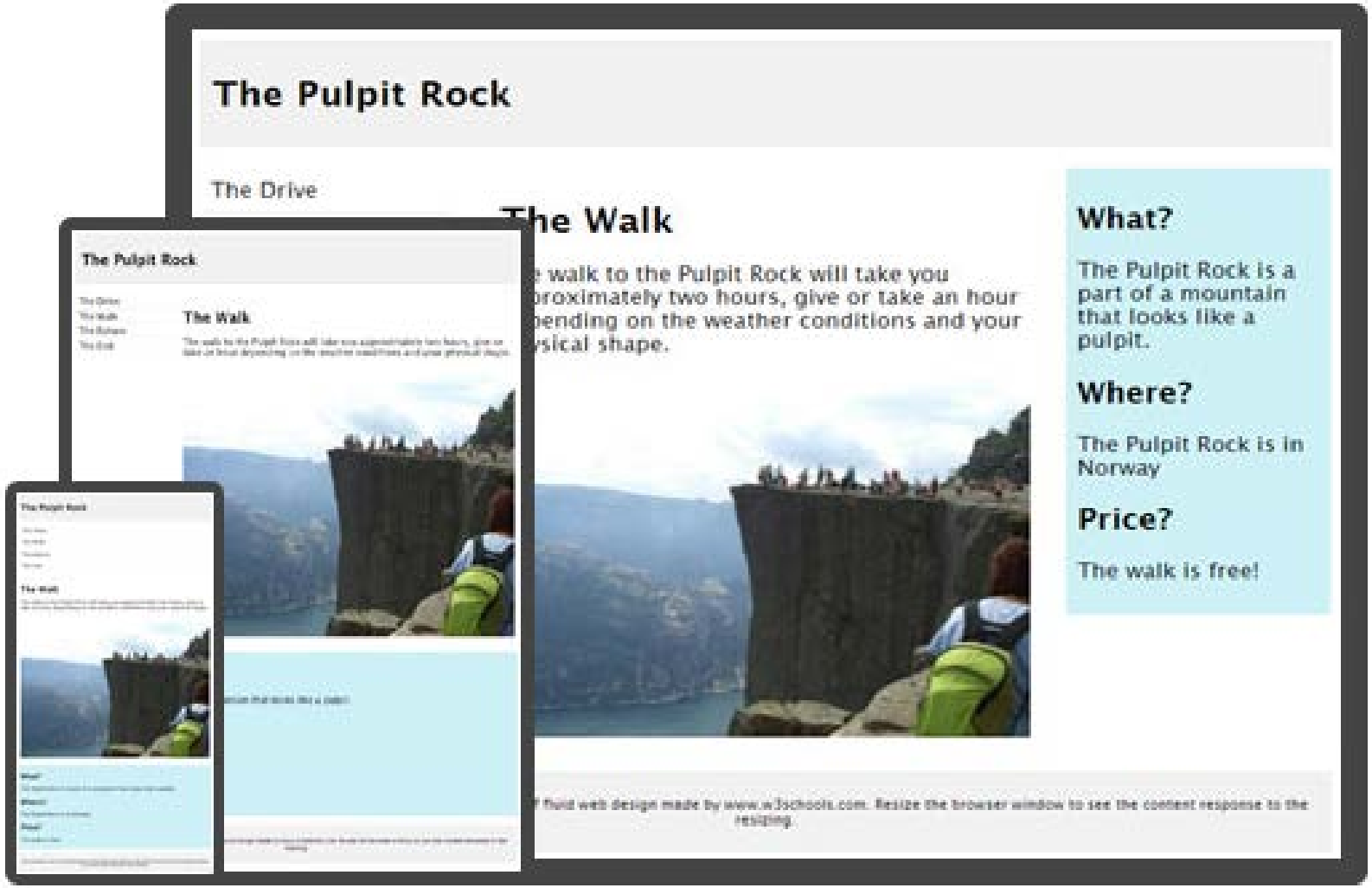
Resize Text

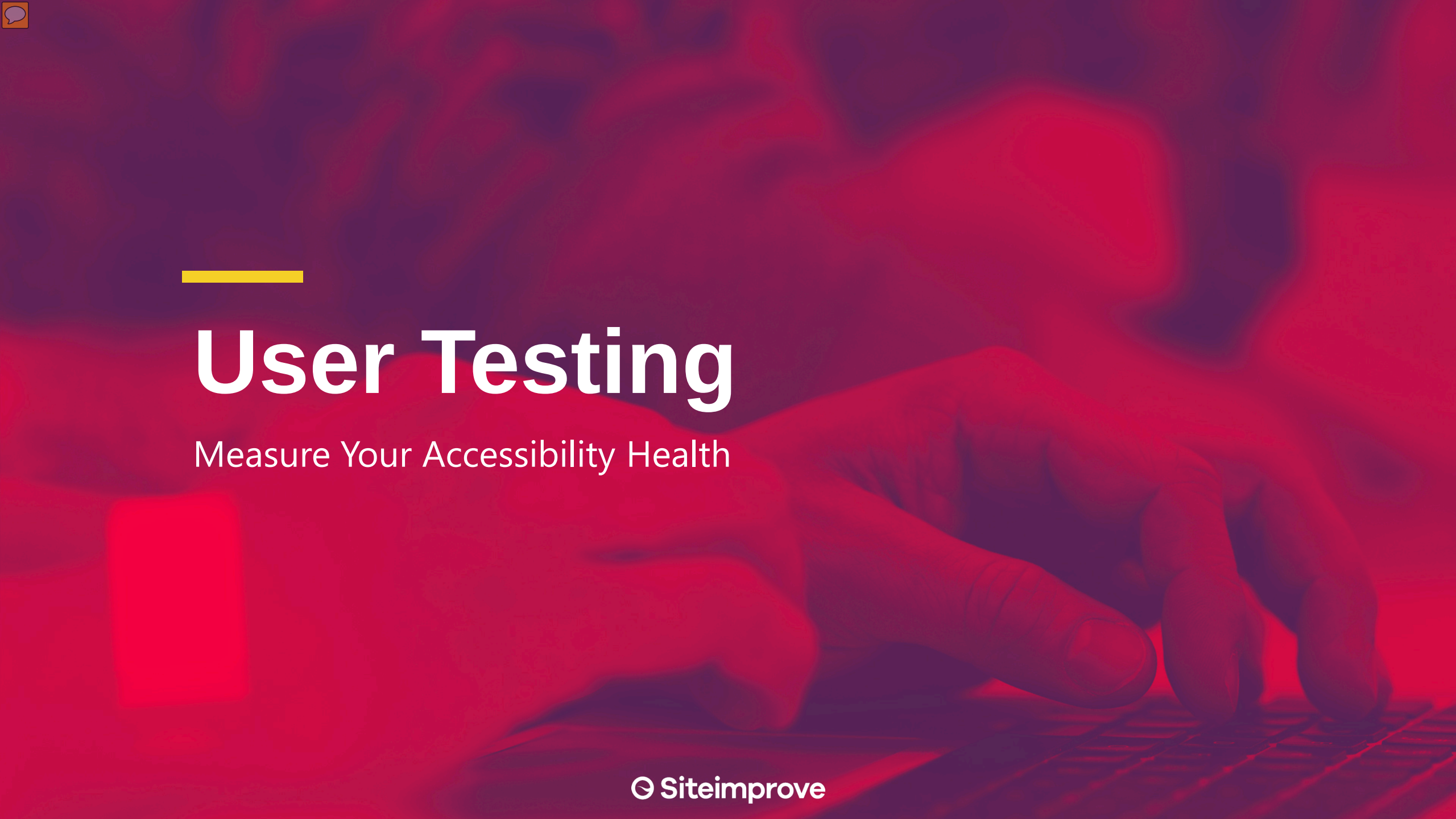
100%

200%

300%

Flexible


The Pulpit Rock
The Drive
The Walk
walk to the Pulpit Rock will take you
roximately two hours, give or take an hour
ending on the weather conditions and your
sical shape.
What?
The Pulpit Rock is a part of a mountain that looks like a pulpit.
Where?
The Pulpit Rock is in Norway
Price?
The walk is free!


User Testing
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Can Users Use My Site?

Can Users Use My Site?

Testing: Usability

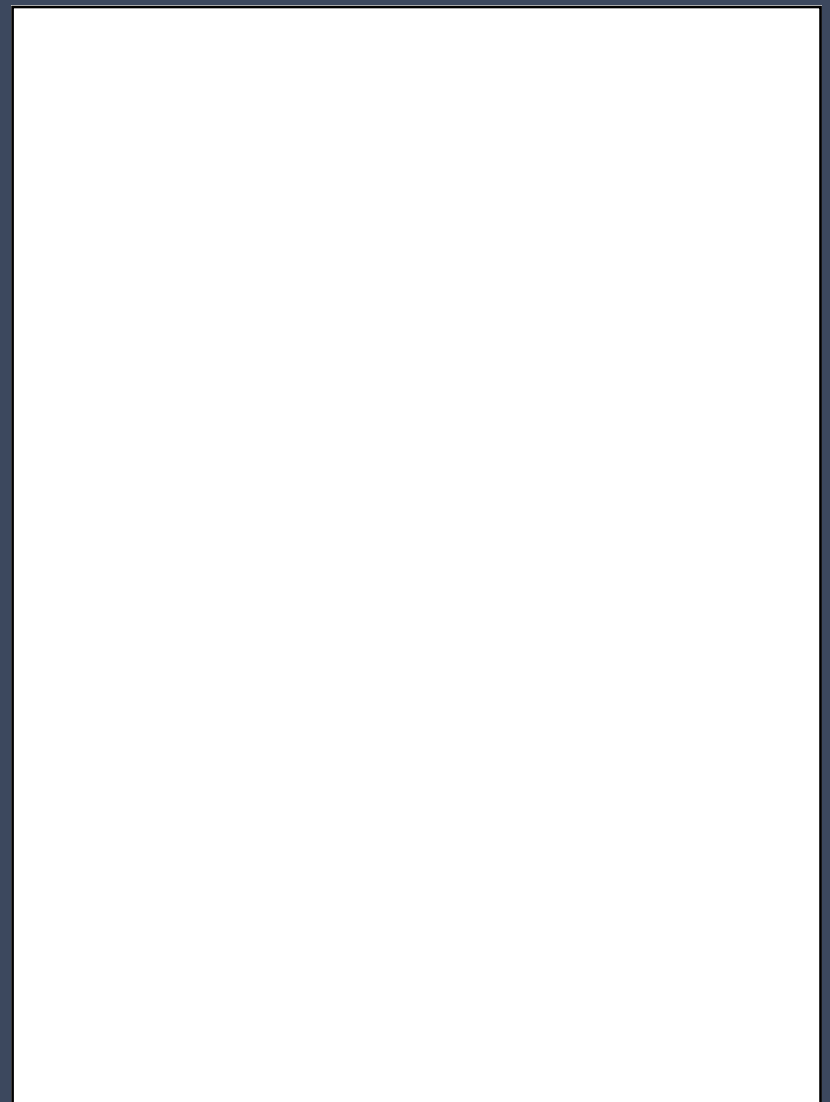
Usability testing helps understand user needs, identify potential issues, and generate ideas for improvement.

Factors:

- **User Task analysis**
- **Readability**
- **Site Navigability**
- **User Experience**

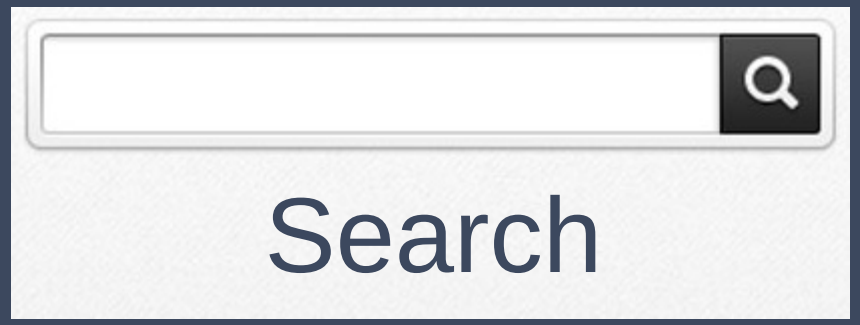
Predictable

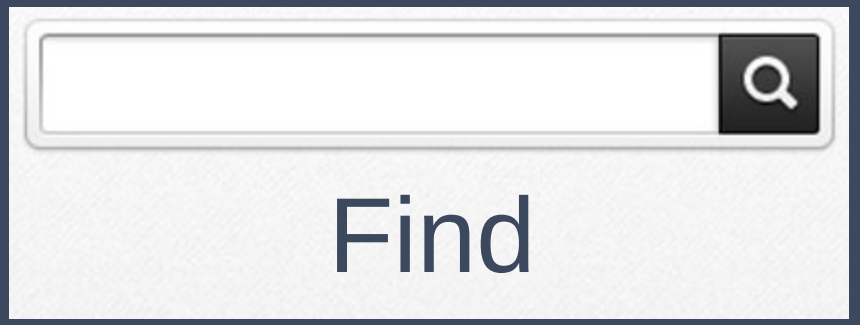
Mouse Interactions



Consistent

- Maintain consistent identification of components that have the same functionality.





Reporting

Measure Your Accessibility Health

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Accessibility is an ongoing process NOT a one-time Project!

Testing Report

- Items tested and any excluded
- Date of testing
- Reviewer
- Tools used
- Results of testing
- Plan to correct

Next Steps

- Evaluate existing sites and resources
- Learn skills necessary for compliance
- Make a plan for compliance
- Document exceptions

Questions?

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Contact

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