

Office of the Government Chief Information Officer

Seminar on Web Accessibility

Best Practices in Implementing Web Accessibility



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Topics

1. Summary on WCAG 2.0 Guidelines
2. Examples of WCAG 2.0 – Before and After
3. Five Testing Techniques
4. Where to Start your Accessibility Project



WCAG 2.0

- The Guidelines consist of four parts

4 Principles

12 Guidelines

61 Success Criteria

Many Techniques

Guidelines for Perceivable

- 1.1 Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.
- 1.2 Provide alternatives for time-based media.
- 1.3 Create content that can be presented in different ways without losing information or structure.
- 1.4 Make it easier for users to see and hear content including separating foreground from background.

Guidelines for Operable

- 2.1 Make all functionality available from a keyboard.
- 2.2 Provide users enough time to read and use content.
- 2.3 Do not design content in a way that is known to cause seizures.
- 2.4 Provide ways to help users navigate, find content, and determine where they are.

Guidelines for Understandable & Robust

- 3.1 Make text content readable and understandable.
- 3.2 Make Web pages appear and operate in predictable ways.
- 3.3 Help users avoid and correct mistakes.
- 4.1 Maximize compatibility with current and future user agents, including assistive technologies.

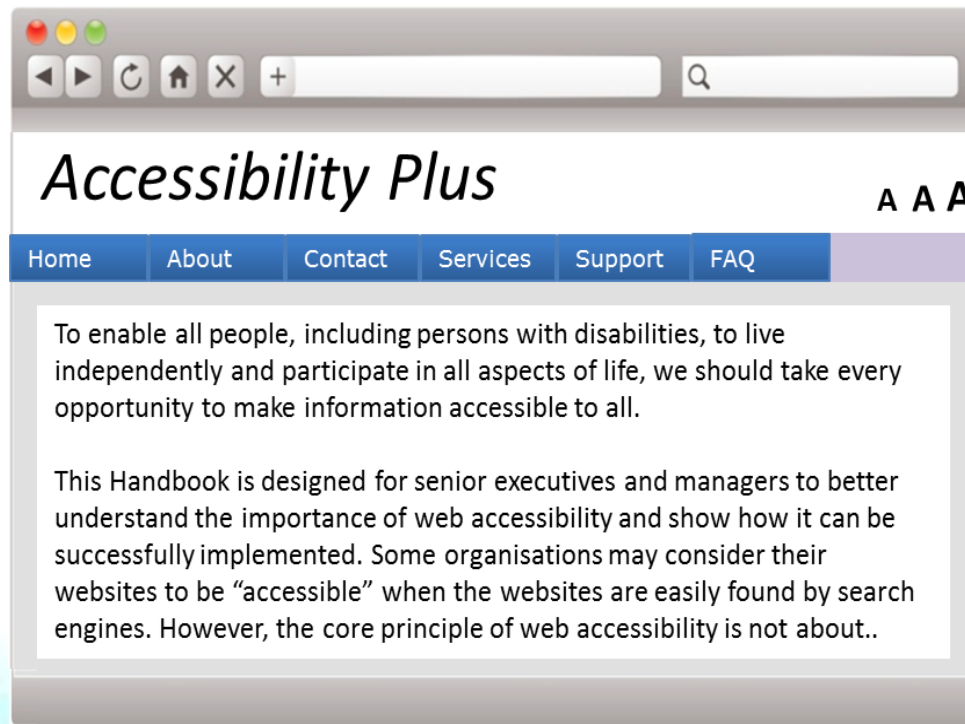
WCAG 2.0 Perceivable

- Contrast (Minimum)
- Before Rectification



WCAG 2.0 Perceivable

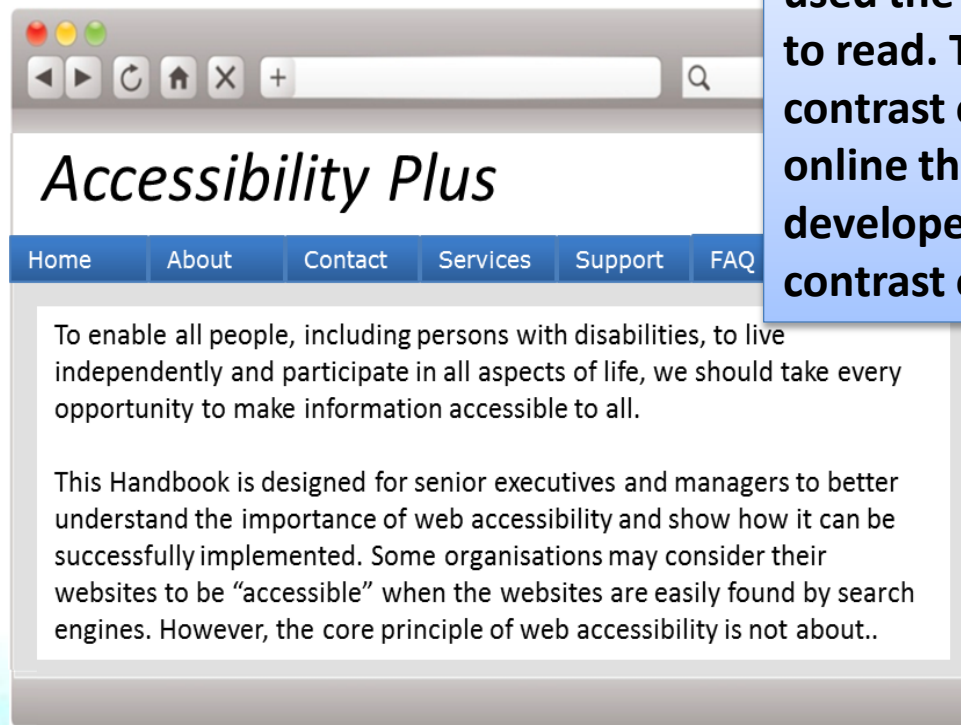
- Contrast (Minimum)
- After Rectification



WCAG 2.0 Perceivable

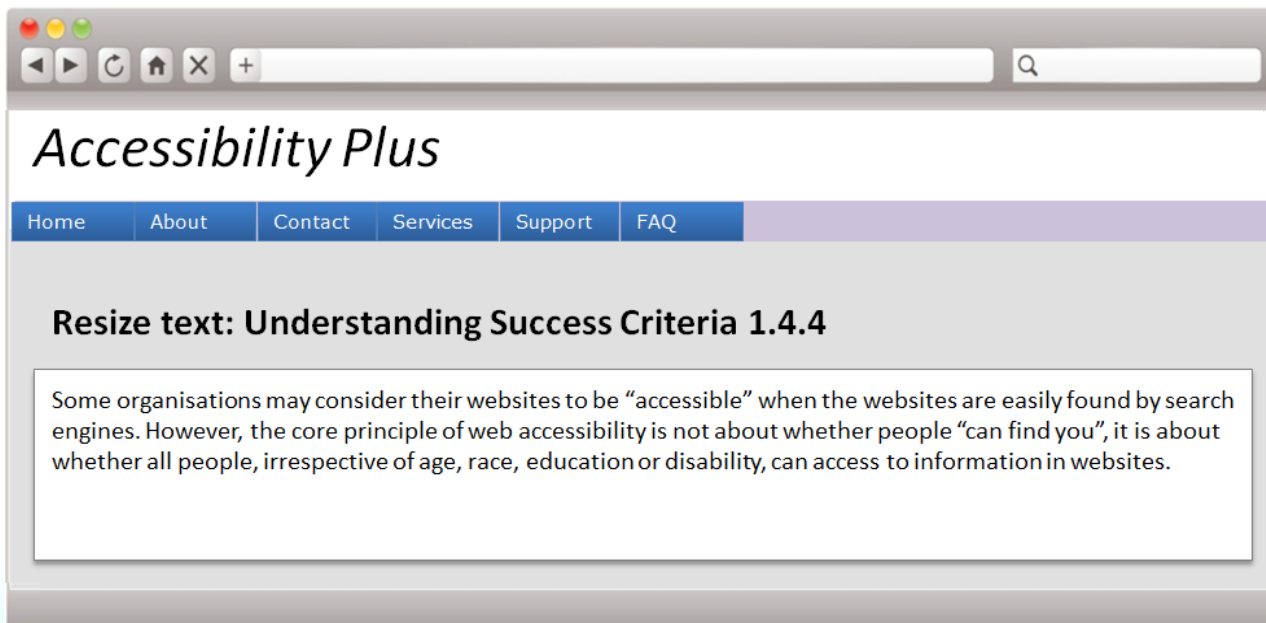
- Contrast (Minimum)
- After Rectification

When higher contrast text is used the text is much easier to read. There are colour contrast checkers available online that can assist web developers with checking the contrast of their colours.



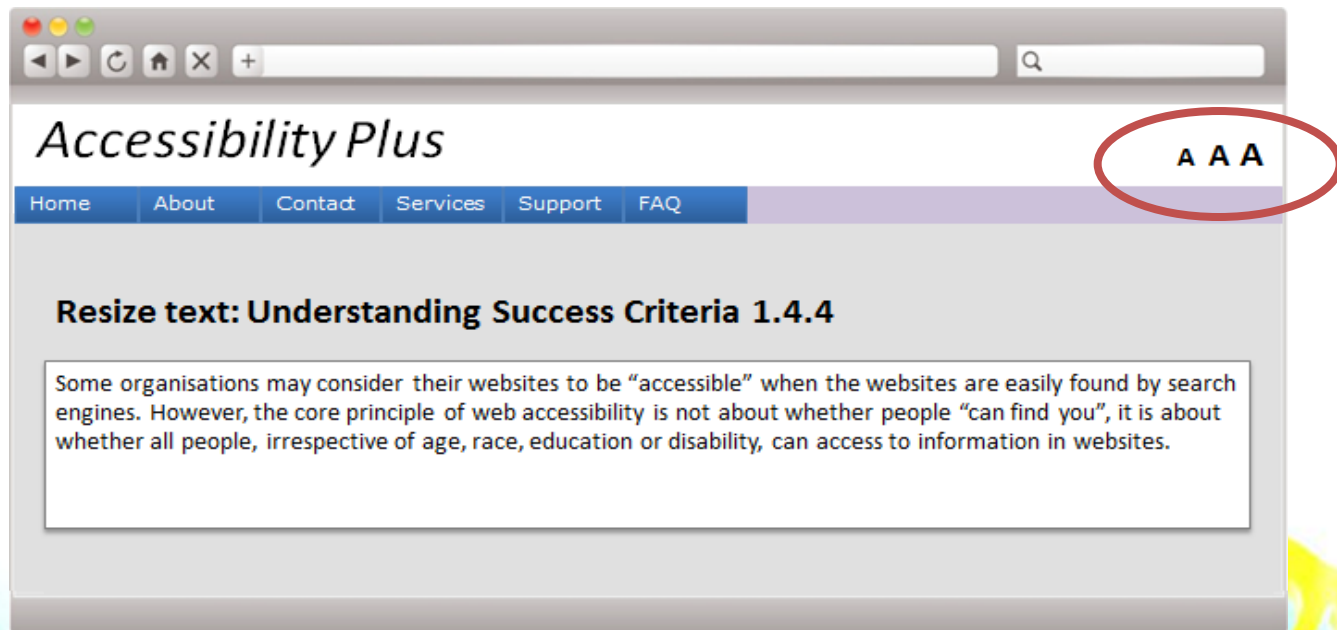
WCAG 2.0 Perceivable

- Resize text
- Before Rectification



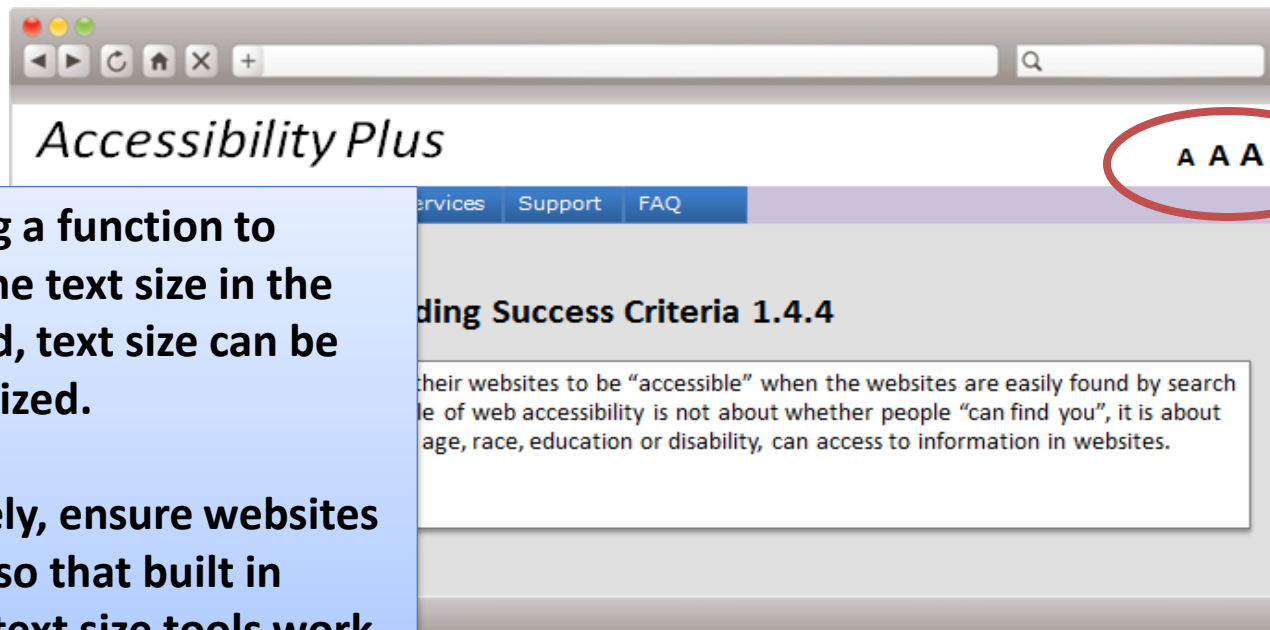
WCAG 2.0 Perceivable

- Resize text
- After Rectification



WCAG 2.0 Perceivable

- Resize text
- After Rectification

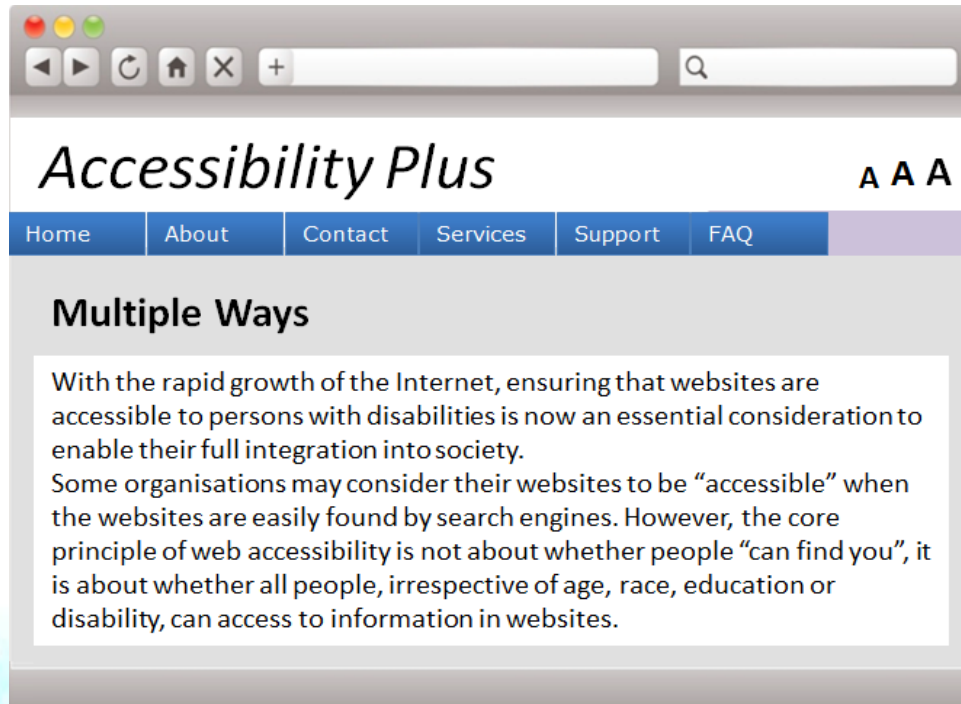


By adding a function to change the text size in the masthead, text size can be easily resized.

Alternately, ensure websites are built so that built in browser text size tools work as they should.

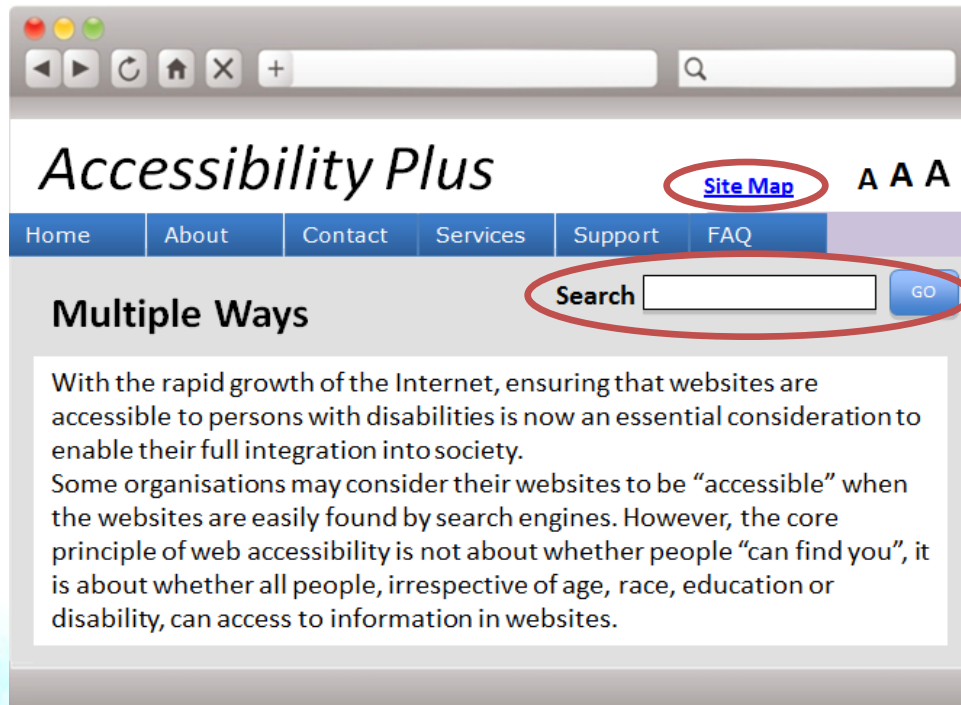
WCAG 2.0 Operable

- Multiple Ways
- Before Rectification



WCAG 2.0 Operable

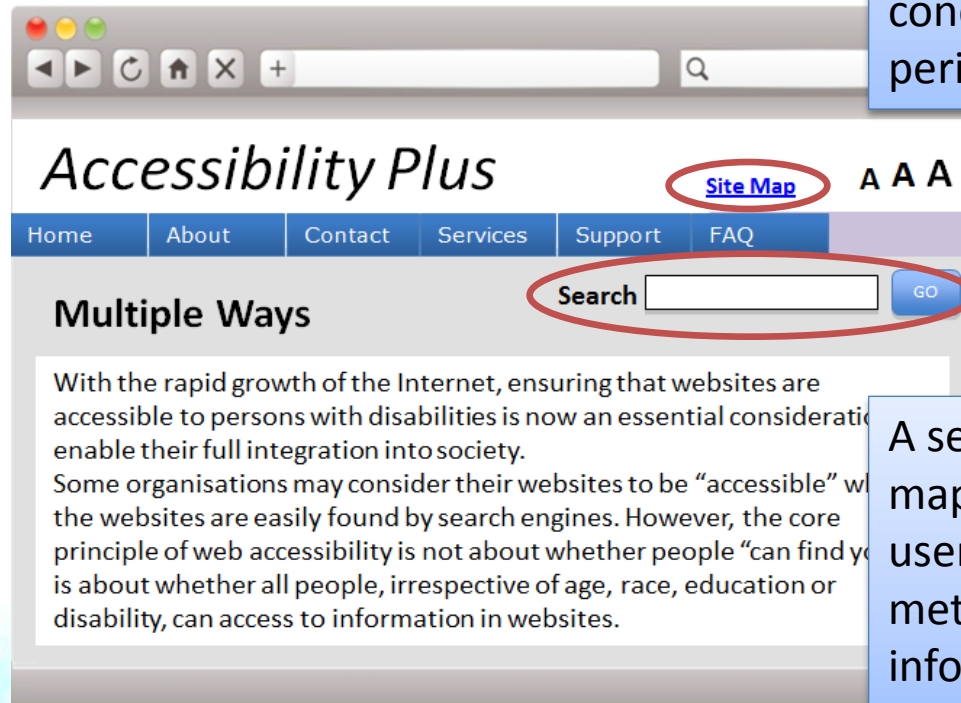
- Multiple Ways
- After Rectification



WCAG 2.0 Operable

- Multiple Ways
- After Rectification

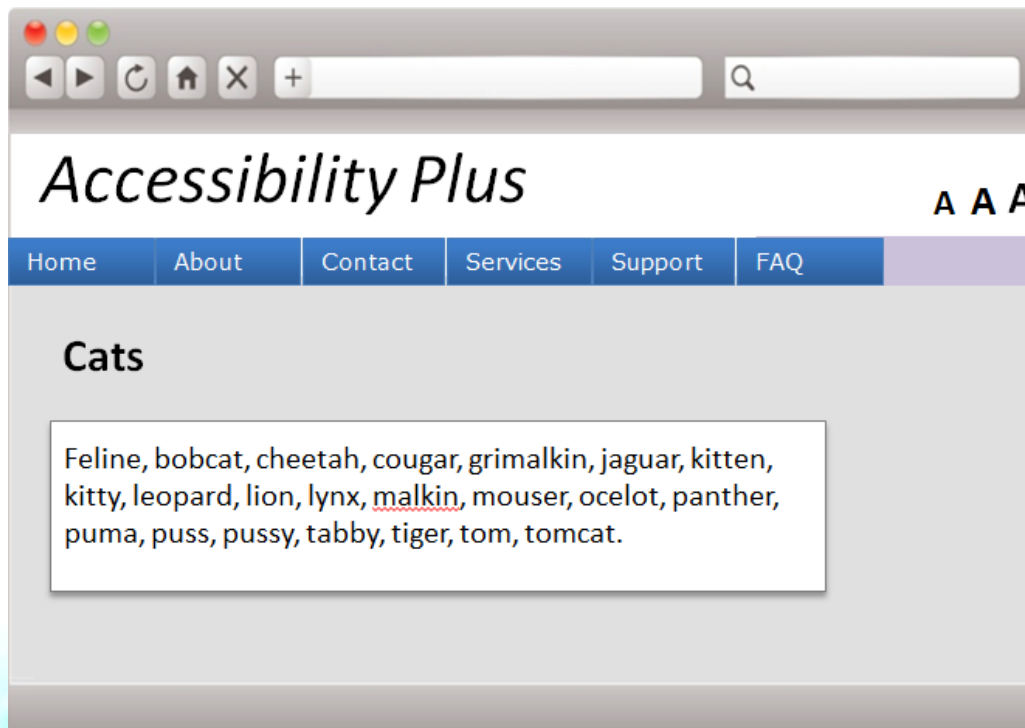
A site map is extremely beneficial for those users who have a learning disability or have difficulty concentrating for long periods of time.



A search function and site map have been included so users can have multiple methods of finding information.

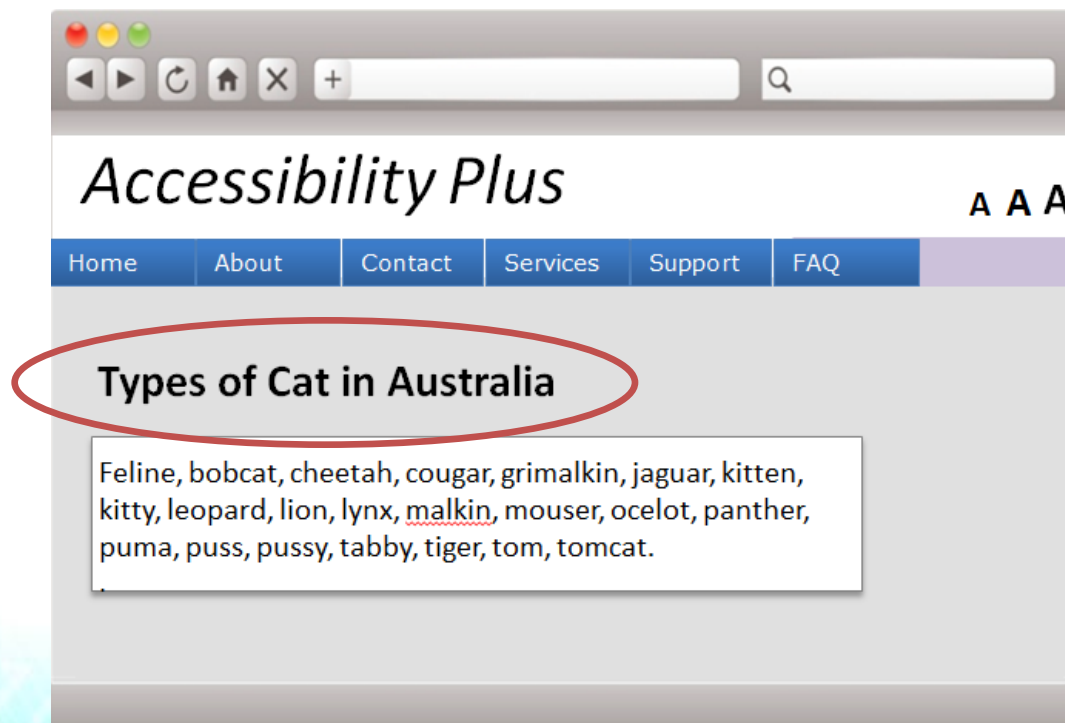
WCAG 2.0 Operable

- Headings and Labels
- Before Rectification



WCAG 2.0 Operable

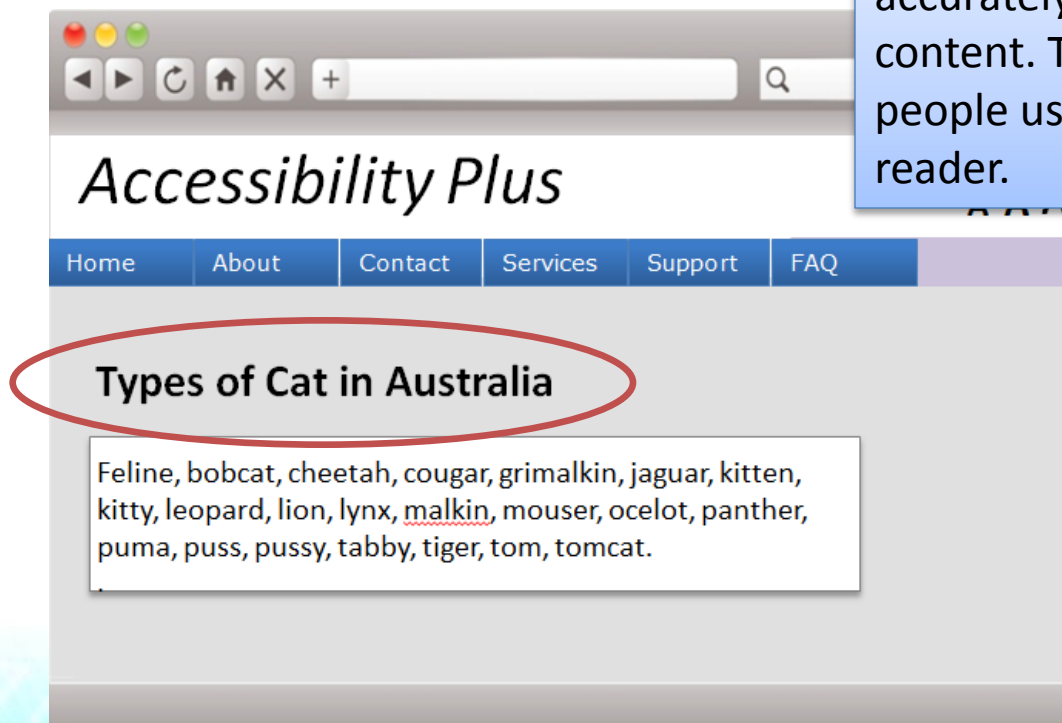
- Headings and Labels
- After Rectification



WCAG 2.0 Operable

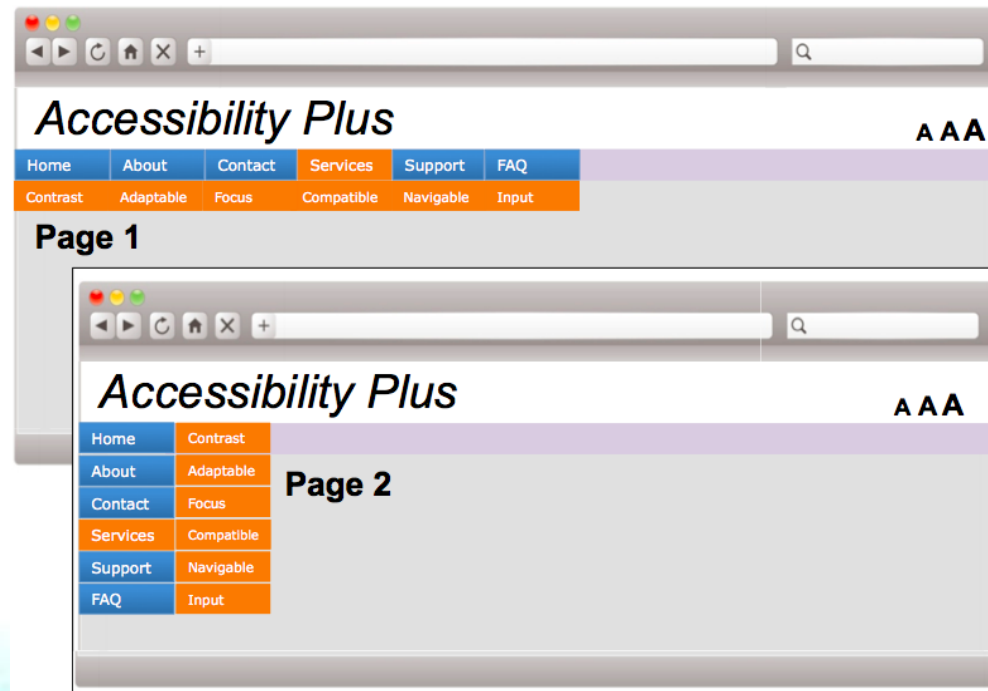
- Headings and Labels
- After Rectification

More detailed heading that accurately describes the content. This would assist people using a screen reader.



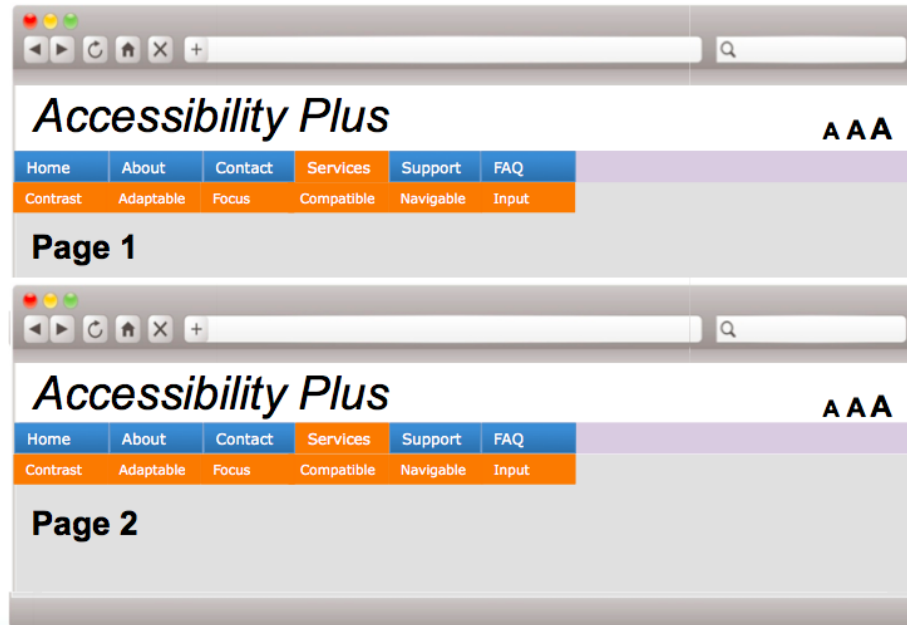
WCAG 2.0 Understandable

- Consistent Navigation
- Before Rectification



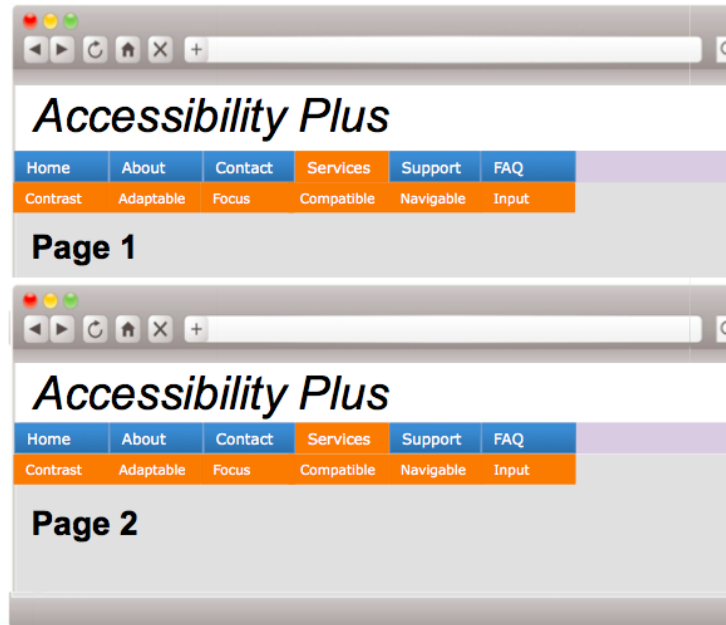
WCAG 2.0 Understandable

- Consistent Navigation
- After Rectification



WCAG 2.0 Understandable

- Consistent Navigation
- After Rectification

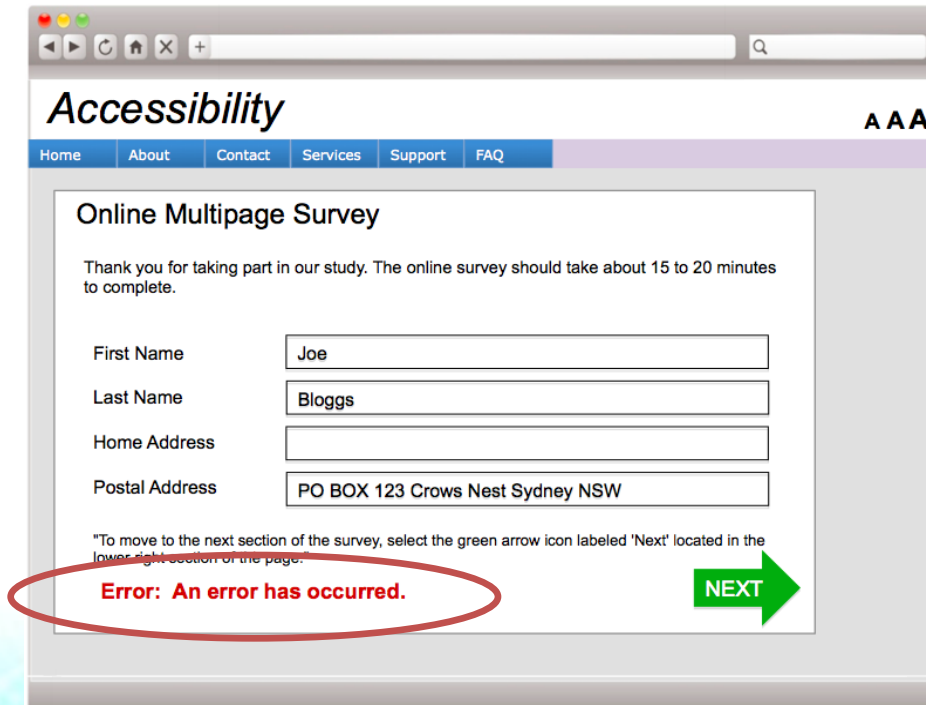


Complicated navigation affects all visitors to your website – and for persons with disabilities it causes additional complications and confusion.

Making your navigation comply with this success criteria will make your website more accessible for all visitors.

WCAG 2.0 Understandable

- Error Suggestion
- Before Rectification



The screenshot shows a web browser window with the title "Accessibility" and a navigation menu with links for Home, About, Contact, Services, Support, and FAQ. The main content area is titled "Online Multipage Survey" and contains a thank-you message and a form with the following fields:

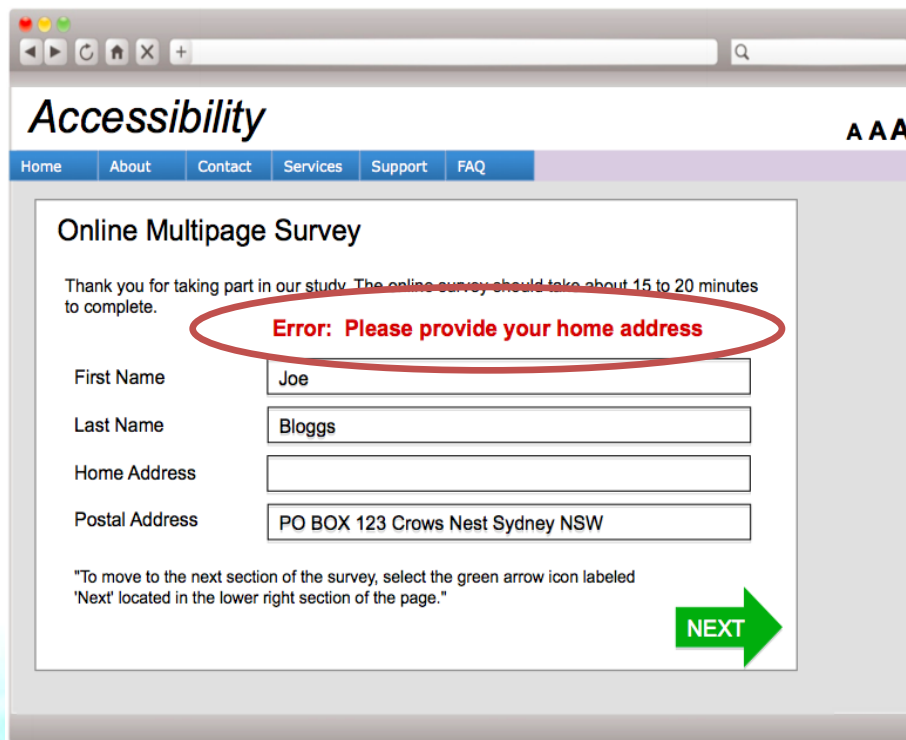
First Name	<input type="text" value="Joe"/>
Last Name	<input type="text" value="Bloggs"/>
Home Address	<input type="text"/>
Postal Address	<input type="text" value="PO BOX 123 Crows Nest Sydney NSW"/>

Below the form, there is a green arrow icon labeled "NEXT" and a red error message circled in red: "Error: An error has occurred." The error message is positioned to the left of the "NEXT" button.

*To move to the next section of the survey, select the green arrow icon labeled 'Next' located in the lower right section of the page.

WCAG 2.0 Understandable

- Error Suggestion
- After Rectification



The screenshot shows a web browser window with the title "Accessibility" and a navigation menu with links for Home, About, Contact, Services, Support, and FAQ. The main content area is titled "Online Multipage Survey" and contains a thank-you message. A red oval highlights an error message: "Error: Please provide your home address". Below the error message are four input fields: "First Name" (Joe), "Last Name" (Bloggs), "Home Address" (empty), and "Postal Address" (PO BOX 123 Crows Nest Sydney NSW). At the bottom right, there is a green arrow button labeled "NEXT".

Accessibility A A A

Home About Contact Services Support FAQ

Online Multipage Survey

Thank you for taking part in our study. The online survey should take about 15 to 20 minutes to complete.

Error: Please provide your home address


First Name

Last Name

Home Address

Postal Address

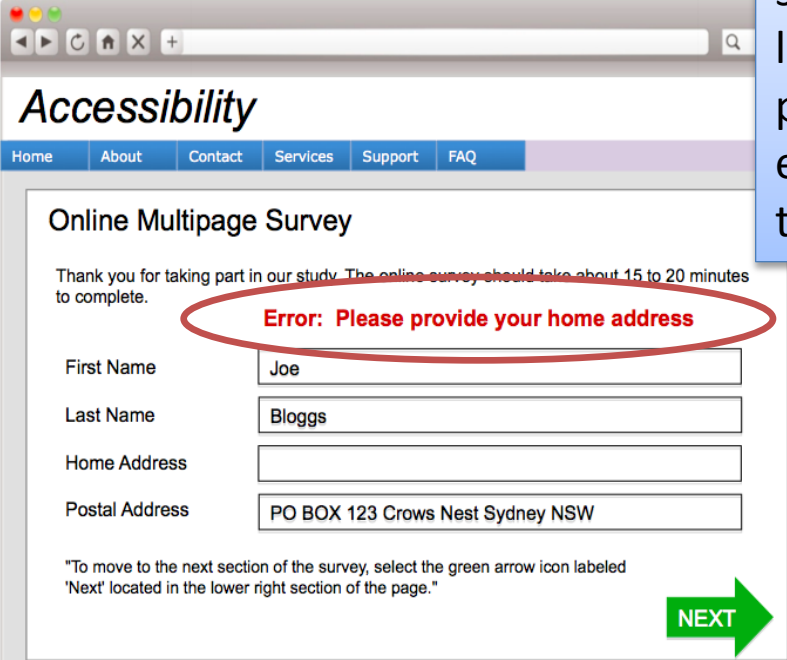
"To move to the next section of the survey, select the green arrow icon labeled 'Next' located in the lower right section of the page."

NEXT 

WCAG 2.0 Understandable

- Error Suggestion
- After Rectification

In contrast this example shows a message that is located at the top of the page and provides a good explanation of what needs to be corrected.



The screenshot shows a web browser window with the title "Accessibility". The browser's address bar is empty. The page has a navigation menu with links for "Home", "About", "Contact", "Services", "Support", and "FAQ". The main content area is titled "Online Multipage Survey". Below the title, there is a paragraph of text: "Thank you for taking part in our study. The online survey should take about 15 to 20 minutes to complete." Below this text is a red oval containing the error message: "Error: Please provide your home address". The form consists of four input fields: "First Name" (containing "Joe"), "Last Name" (containing "Bloggs"), "Home Address" (empty), and "Postal Address" (containing "PO BOX 123 Crows Nest Sydney NSW"). At the bottom of the form, there is a green arrow button labeled "NEXT".

Five Testing Techniques

1. Code Scanning

- Many accessibility issues can be detected automatically using specialist software and tools.



Example Tools -

AChecker

WAVE

Web Accessibility Checker

Five Testing Techniques

2. Visual Review

- A great deal can be learnt by browsing your own website while keeping in mind certain guidelines.
 - Can your content be easily read?
 - Can your forms be used effectively?

Five Testing Techniques

2. Visual Review

- We suggest paying particular attention to anything visual that might not work well for a visually impaired user.
 - Is your text too small?
 - Are you using pale colour text on a pale background making it hard to read?

Five Testing Techniques

2. Visual Review



Example Tools -

Vischeck

Web Developer (Firefox plugin)

Colour Contrast Check

Five Testing Techniques

3. Manual Screen Reader Testing

- Navigate your website and determine just how much information you're able to access through the screen reading software.



Example Tools -

Jaws

VoiceOver

Window Light

Five Testing Techniques

4. Testing with Other Tools

- As well as screen reader tools, persons with disabilities will use a variety of other tools to interact with your website.



For Example -

Screen Magnification Tools

Voice Control Tools

Five Testing Techniques

4. Testing with Other Tools

- Test your website with these tools and rectify issues found.



Example Tools -

ZoomText

Dragon Naturally Speaking

Five Testing Techniques

5. Human Testing

- The most thorough approach to web accessibility is to test your website with persons with various disabilities to learn which areas are difficult for them to access.

Five Testing Techniques

5. Human Testing

- This sort of testing needs time and resources.
- Therefore it is best to perform the above steps first to rectify as many issues as possible and then use human testing at later stages of a project to uncover more subtle issues.

Five Testing Techniques

5. Human Testing

- Many organisations that support persons with disabilities can help by providing free or affordable human testing services.
- Website owners are encouraged to contact these organisations for assistance.

Recap on Testing Techniques

- Core Techniques
 - Code Scan
 - Visual Review
 - Human Testing
- Optional
 - Screen readers and other testing tools

How to Start Your Web Accessibility Project

- Steps to make your website accessible
 - How do you start?
 - Any skills to undertake the project, and if not, either train people or use a contractor.
 - Then schedule the following...

How to Start Your Web Accessibility Project

Assess the Whole Website

- Consider rearranging the structure
- Simplify content
- Testing

How to Start Your Web Accessibility Project

Code Scan

- Select tools depending on how simple or complex your website is
- Fix fundamental code issues which impact accessibility

How to Start Your Web Accessibility Project

Site Audit

- How much and what type of content your website contains – text, pictures, video, audio?
- Have a visual review of each component and ask –
 - Can the content be communicated to persons with disabilities?

How to Start Your Web Accessibility Project

Test the website with a screen reader

- Can persons with disabilities interact with every part of your website?
- Fix all errors found

How to Start Your Web Accessibility Project

Test the website with persons with disabilities

- Identify issues that are missed by other testing techniques.
- After rectification, your website should be **very accessible to persons with disabilities.**



Questions and Answers

Thank you