

# *Web Accessibility Heuristics*



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## Introduction

A few days ago, long before the thought of this cheatsheet was born, I met a small girl who was standing very quiet in twenty-by-ten women's parlour I frequent. Unusual quietness for a three year old, I must confess! As her mom got ready to leave, the little girl appeared to be looking for something on the sofa. There was absolutely nothing on the sofa except, for the sofa itself. She was confused. She was completely blind in both her eyes. My heart sank!

I wanted to help the little child by holding her hand and showing the way out the door, but how far would I go with her? Only as far as the door! Beyond that little door, the little girl had to figure out about the world all by herself, whether she saw it or not! I felt like dust of the earth as she carefully walked out of that parlour taking the help of whatever it takes in that little room. This e-book is dedicated to all those differently-abled people who are figuring out how to lead a normal life irrespective of what life has given them. God bless!

## Web Accessibility

Web Accessibility is the 'lity' of making web pages easier to navigate and read for people with different disabilities. As technology advances, differently-abled people have access to varying technologies and devices to make their life better. Ironically, software and devices built today are pretty hostile to this group of people. For the determination this user group is particularly known for, they have stopped taking things lying down. They are challenging organizations to build software that takes their needs more seriously than ever. Few organizations are indeed working tirelessly on building accessibility into their softwares.

This cheatsheet is a small attempt towards testing for accessibility in the Web World. It is tinkered with basic ideas to look for while testing for accessibility, yet robust enough to put software developers (programmers, testers, others) in the right direction for developing accessible software.

Atul Gawande, well known author of the book, "The Checklist Manifesto" summarizes what I want to achieve through this cheatsheet. "You want people to make sure to get the stupid stuff right. Yet you also want to leave room for craft and judgment and the ability to respond to unexpected difficulties that arise along the way." I hope this cheatsheet will do exactly this while you embark on a journey in web accessibility testing.

Happy Testing!

Parimala Hariprasad

## Visual

<b>Visual (blindness, low vision, colour blindness)</b>
<b>Page Titles</b>
Short and self-explanatory headings
Appropriate sub-headings
Page title for all web pages
<b>Text &amp; Colour</b>
Text font is changeable - ability to set large/small font - computer/browser settings
Text font style is changeable
Text colour is changeable – computer / browser settings
Is colour specific content present? If yes, is a “no-colour” version of the content for color-blind users?
Website viewable when colour is removed?
Avoid text rendered as part of a graphic like image, bitmap etc as screen readers can't read into them
Textual equivalents for Video/Audio/Images
Usage of emoticons. E.g. Text 'Smile' instead of a smiley like :-)
<b>ALT tags</b>
Textual equivalents for images (ALT text)
ALT text is indicative of images like 'Photo of Taj Mahal'
ALT text is set to NULL for decorative images
ALT text is available for audio content
Buttons have labels and alternate texts
<b>Images</b>
Images must be enlargeable - ability to zoom in and out
Are images readable and comprehensive when enlarged?
Textual equivalents for images
<b>Hyperlinks</b>
Non-ambiguous hyperlinks
Textual equivalents for hyperlinks
Hyperlinks are underlined? - for colour blind users
Hyperlinks are differently coloured? - for colour blind users
Hyperlink to Home Page on every page of the website
Hyperlinks are accompanied with link text for readability?
"Skip Navigation" hyperlinks availability
<b>Captchas</b>
Accessible Captchas (less background noise)
Audio alternative for Captchas
Support to request for a new Captcha
<b>Screens, Forms, Documents</b>
Forms have prompt or label texts
Equivalent HTML text for Adobe files
Tab indexing order

Default cursor location in applicable fields on every page
Ability to magnify the screen
Sitemap availability
Ability to modify mouse pointer settings for view-ability
Ability to use speech functions on computer
Ability to use screen readers
Screen Resolution compatibility
Changing Display setting to high contrast modes must not affect visibility of website
Avoid tabular representations, charts, excel OR provide accessibility support for the same
<b>Search-ability</b>
Searching using website 'Search' feature
Searching using browser 'Search' feature
Searching using assistive technology

## Motor/Mobility

<b>Motor/Mobility (inability to use hands, muscle slowness, lack of muscle control)</b>
Does website support a voice control system?
Are clickable hyperlinks large enough to allow users with motor skills disability to click on it?
Do text fields support Autocomplete feature?
Accessibility shortcuts must be different from the ones supported by Switches and other assistive technologies\hardware
Are clickable images large enough to allow users to click on it?
Can all pages be accessed using mouse alone?
Can all pages be accessed using keyboard alone?
Keyboard/mouse flexible for Right handed users?
Keyboard/mouse flexible for Left handed users?
Numeric keypad position for left handed users?
Ability to use head movements to control computer and specific actions on the website
Ability to use foot movements to control computer and specific actions on the website

## Auditory

<b>Auditory (deaf, hearing impairments, people hard of hearing)</b>
Is video/content available in a sign-language version?
Are videos/content available as text only version?
Do videos display text information (Closed captioning) for deaf users to understand
Turn off volume for video content - Is video understandable?

## Seizures

<b>Seizures / Photosensitive epilepsy</b>
Avoid Flashy images and pages
Display warning message when flashy images are unavoidable
Avoid marquees or blinking texts
Flash images need to be accessible
Avoid glaring colours used on the website
Avoid flickers, flashes and blinks

## Cognitive

<b>Cognitive/Intellectual (developmental, learning, cognitive disabilities, memory, attention span, maturity, problem solving, logical reasoning, grasping power)</b>
Does website content have plain text supported with illustrations and diagrams?
Does website support switches or other assistive technology devices?
Does website support increased font sizes?
Does website allow disabling images?
Does website allow disabling styles?
Is Video \ Audio content easy to understand?
Is Video \ Audio content slow-enough for this user group to understand well enough?

## Design considerations

<b>Design considerations for Accessible websites</b>
Readability of websites - Facilitate user-defined style sheets for differently-abled people
Electronic forms are to be accessible using assistive technology for reading, filling and submitting online
Scripts coded in scripting languages to be accessible using assistive technology
Text only website to be built if compliance cannot be achieved
Time delays to be notified well in advance
Ability to skip repetitive navigation steps
Text tags for frames, plug-ins, applets for identification and navigation
Text tags for data tables (column names)
Text tags for Images maps
Text tags for Colour coding schemes
Text tags for multimedia elements
Text tags for non-text elements (buttons, checkboxes, audio file, images, graphics etc)
Use at least one assistive technology to test for accessibility
JavaScript version of the website must be coded for accessibility
Is Non-JavaScript version of the website available?
Accessibility support in multiple browsers

## Assistive Technologies

Assistive Technology support
Does website/product support text to speech software - read selected items for people with learning disabilities
Does website/product support text to speech software - read complete content for blind users
Does website/product support text to Braille hardware
Is website coded to recognize any assistive technology to support accessibility

## Tools and Add-ons

Accessibility tools and add-ons
JAWS screen reader
WAVE - <a href="http://wave.webaim.org/">http://wave.webaim.org/</a>
Online Accessibility Checking tool - <a href="http://www.etre.com/tools/accessibilitycheck/">http://www.etre.com/tools/accessibilitycheck/</a>
Colour Blindness simulator - <a href="http://vischeck.com/">http://vischeck.com/</a>
Image Analyzer - <a href="http://juicystudio.com/services/image.php">http://juicystudio.com/services/image.php</a>
AccessColor for colour contrast - <a href="http://www.accesskeys.org/tools/color-contrast.html">http://www.accesskeys.org/tools/color-contrast.html</a>
Web Developer add-on (Firefox)
Accessibility Evaluator add-on (Firefox)
Windows resizer - Resolution test add-on (Firefox)
Pendule add-on (Chrome)
UserscriptCSS add-on (Chrome)
ChangeColors add-on (Chrome)



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## Thank You

Thank You for downloading and reading this book. Feel free to share this content with your friends and colleagues who may find it useful. Of course, with due credits to the author 😊 (Smile). Send in your feedback \ suggestions \ hate mails through any medium listed below.

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**Thank you once again for your precious time!**