



World of Assistive Technologies  
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# Overview

- Internet is sea of information
- They help people with disabilities to join the main stream of the society
- They help people with disabilities to perform any task



# People include...

- Situational Disability
  - Reaching late to venue... Traffic in city
  - Oops! My mouse stopped working, what do I do?
  - Text is too small on this webpage, how do I read this?
- Functional Disability
  - Visually impaired
  - Mobility impaired
  - Hard of hearing
  - Learning disability
  - Autism, CP



## Some facts...

- As per WHO, there are about 600 million people with disabilities across the world
- In India alone, there are about 70 million
- There is a rapid development in the area of assistive technology industry!

# AT for visually impaired and deaf blind

- Screen readers
- Screen magnifiers
- Refreshable Braille Display



# AT for Mobility impaired

- Track ball
- Head mounted mouse
- Voice recognition software
- Switch



# Hearing impaired

- Induction loop
- TTY



# Learning Disabilities

- Word prediction software
- AAVAZ by Invention labs



# W3C and WCAG

- Develops interoperable technologies
  - Specifications
  - Guidelines
  - Software
  - Tools
- Why would they do it?
  - To lead web to its potential and for consistency on web...
- WCAG – Web Content Accessibility Guidelines
- A Web Accessibility Initiative (WAI) from W3C
- Currently WCAG 2.0 is official recommendation  
<http://www.w3.org/tr/wcag20>



# Accessibility Testing - Automated

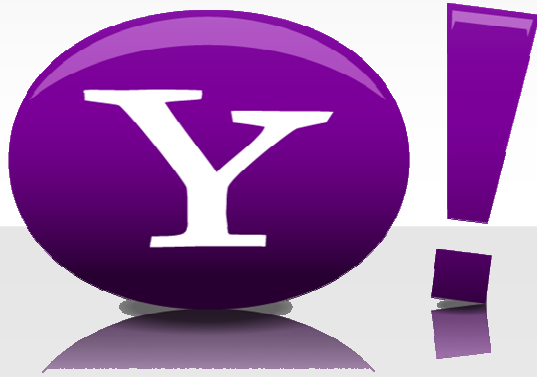
- WAVE – <http://wave.webaim.org/toolbar>
- Firefox Accessibility extension
- Add-ons of Mozilla Firefox <https://addons.mozilla.org/en-US/firefox/search?q=accessibility&cat=all>



# Manual Testing

- Screen Readers
  - NVDA – <http://www.nvda-project.org>
  - JAWS for Windows – <http://www.freedomscientific.com>
- Screen Magnifiers
  - ZoomText Xtra – <http://www.aisquared.com>
  - Dolphin Supernova – <http://www.yourdolphin.com>
- Alternate Input devices –
  - Track ball and switch – <http://www.ablenetinc.com>
- Dragon Naturally Speaking
  - <http://www.nuance.com>
- Talks – a screen reader for mobile S60 phones
  - <http://www.nuance.com/talks/>





Thank You