Web Design Basics

Objectives

- Browser compatibility
- Browser variants
- Mobile-first Performance
- Good Design practices
- Accessibility

Browser Compatibility Issues

- Designing for multiple browsers is a challenge
  - Test your work in as many browsers as possible
  - Test with both older browsers and new browsers
    - Try to minimize differences across browsers
- Modern browsers have better adherence to web standards

Browser Compatibility Issues

Follow these guidelines:

- Test your work in multiple browsers and devices
- Know your audience
- Follow W3C standards
- Validate your code

Browser Variants

Many variables affect how web pages appear – many of which you cannot control

Your designs must be portable and accessible by respecting User defined preferences

Mobile-First Performance and Tuning

Depends on

- Image size (requires optimization)
- Text based content
- CSS styles that are stripped of duplication and redundancy
- Simplistic grid layouts

Cache and Download Time

- Web pages are stored on web servers
  - Web addresses connect to a specific web server
  - The server serves up the file(s) for download
    - All text and images are downloaded
- On return visits, your computer loads the files locally unless content has changed
  - Local files are stored in the browser cache
  - Take advantage of the cache by reusing graphics

Device and OS Issues

- Users' devices vary widely in equipment and design and this is just ***one*** of the design variables you cannot control
- Test your content on as many device types as possible keeping the following in mind:
  - browser versions
  - monitors and display software
  - font choices

Multiple Screen Resolutions

- Screen resolution is the width and height of the computer screen in pixels
  - This is a variable you cannot control
  - Most monitors have many screen resolutions to choose from, mobile devices are fixed
- Wide-screen resolutions (2176x1224 19:6)
- Verses mobile phone screens (480x320)

Canada

	Screen resolution	Share
1.	750x1334	24.77%
2.	1080x1920	20.20%
3.	1440x2960	16.71%
4.	1440x2560	8.58%
5.	1125x2436	5.13%

Retrieved from: https://deviceatlas.com/blog/most-used-smartphone-screen-resolutions#Canada

Widths widths and more widths….

The width of the device is of primary importance because…

1. We do not want people to scroll horizontally
2. The length of text on a page should determine its' length
3. Tied to the way media queries target screen sizes.

750px – most common portrait
1080px – most common landscape

Mobile Devices

- Smart phones and tablets
  - test on these devices as well
- Designing for mobile devices has many challenges
  - CSS media queries let you specify style rules for different device types
  - Many web sites now offer content designed for mobile

Mobile Devices

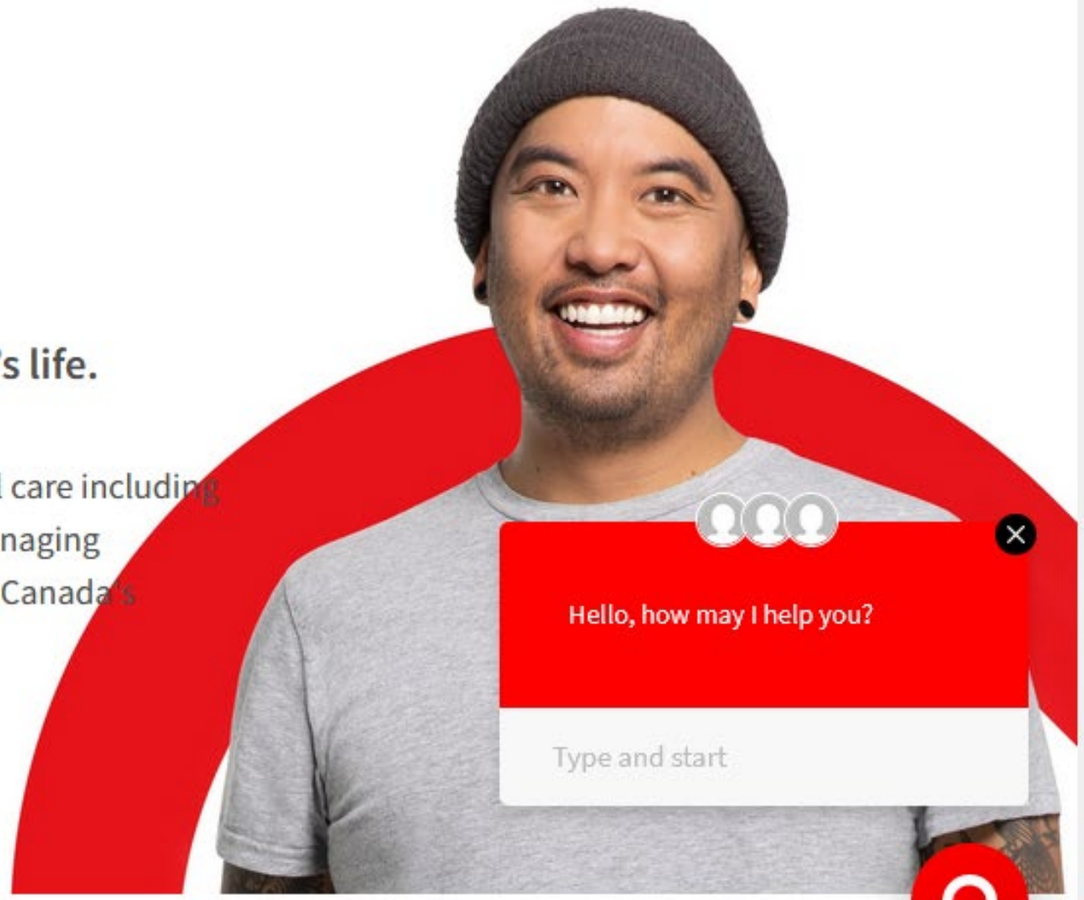
- There are two strategies for serving content to mobile devices:
  - Separate mobile site – designed specifically for mobile devices
  - Responsive site – designed to adapt to different screen resolutions – best practice

← Blood

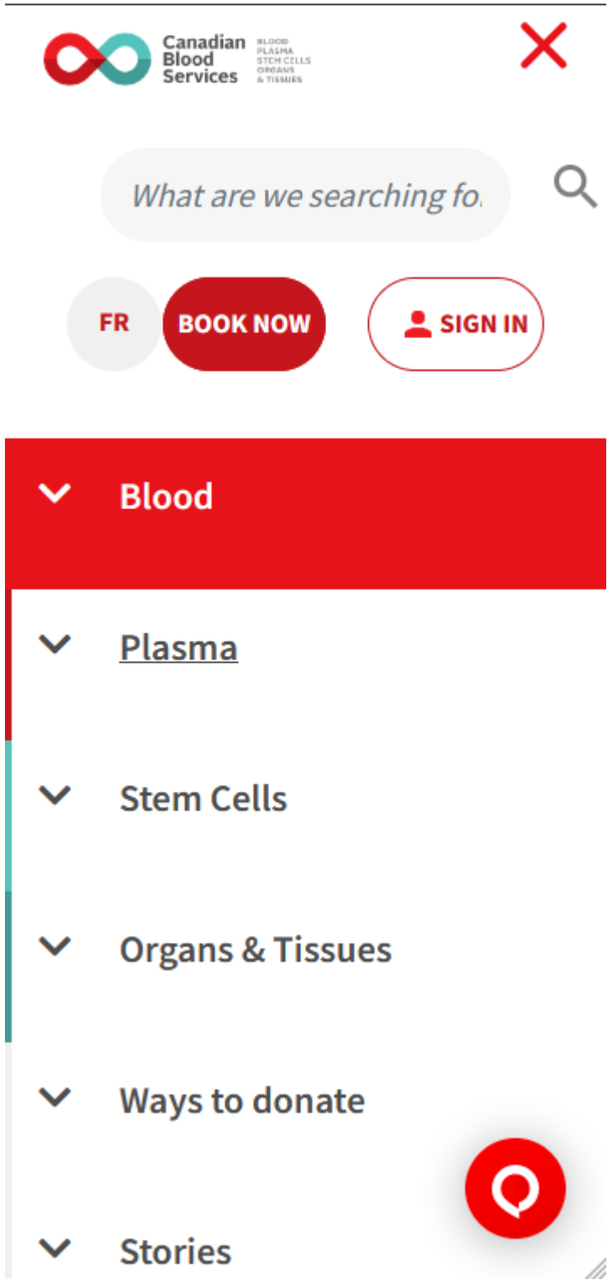
Donating blood

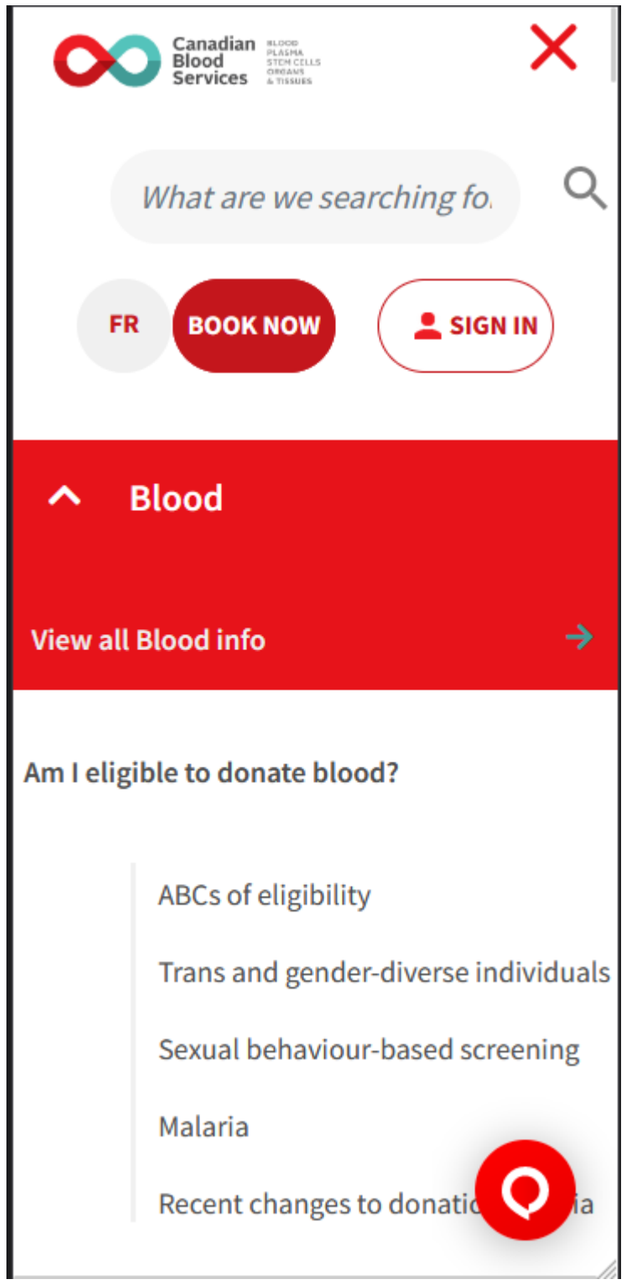
About an hour of your time could change someone's life.

Blood and blood products are a critical part of everyday medical care including major surgeries, medical procedures, cancer treatments and managing diseases and disorders. As a blood donor you form a vital link in Canada's lifeline, helping many Canadians wake up healthy each day.



All topics in donating blood


Canadian Blood Services
What are we searching fo
FR
BOOK NOW
SIGN IN
Blood
Plasma
Stem Cells
Organs & Tissues
Ways to donate
Stories


Canadian Blood Services
What are we searching fo
FR
BOOK NOW
SIGN IN
Blood
View all Blood info
Am I eligible to donate blood?
ABCs of eligibility
Trans and gender-diverse individuals
Sexual behaviour-based screening
Malaria

Donating blood

Design best-practices

Balance Design and Content

- Access to your content and *user needs* should guide your design
  - A web site's design should complement the content and support the reader
  - Many sites have unnecessary design elements that can distract the user
  - Always choose simple and direct designs that showcase content and allow easy access

Create a Unified Site Design

- Plan the unifying themes and structure for your site
  - Communicate a visual theme with your design choices
  - Consider more than each page
  - Plan smooth transitions
  - *Use a grid to provide visual structure*
  - Include active white space

Plan Smooth Transitions

- Plan to create a unified look
  - Reinforce identifying elements
  - Consistency and repetition create smooth transitions
  - Place navigation elements in the same position on each page
  - Use the same navigation graphics throughout the site

Use a Grid to Provide Structure

- The structure of a web page is imposed by a grid
- The grid is a conceptual layout device
- Impose a grid to provide visual consistency
- The grid aligns your content into columns and rows
- You can break out of the grid to provide variety and highlight information (the 960 grid)
- The grid provides page margins and gutters between elements

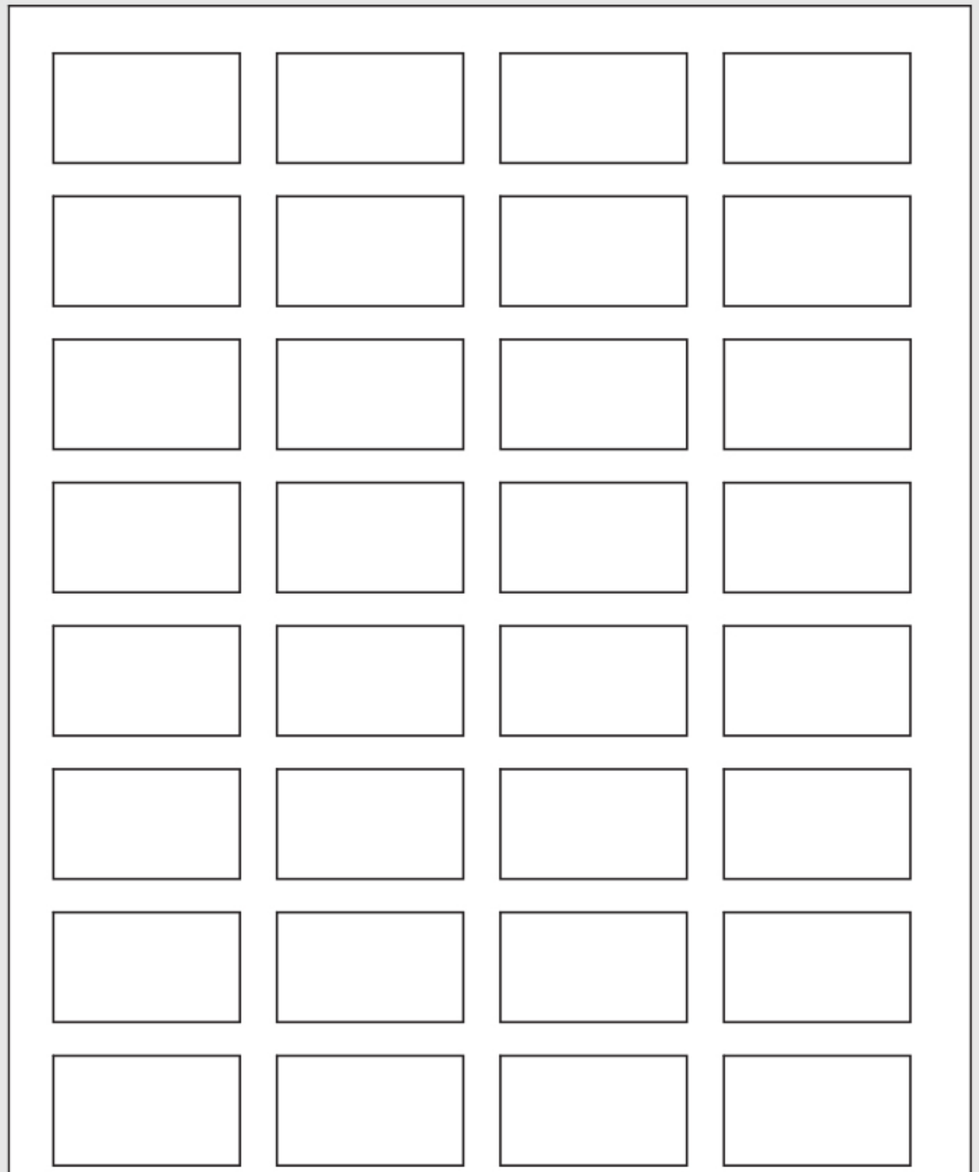


Figure 2-14: Four-column grid

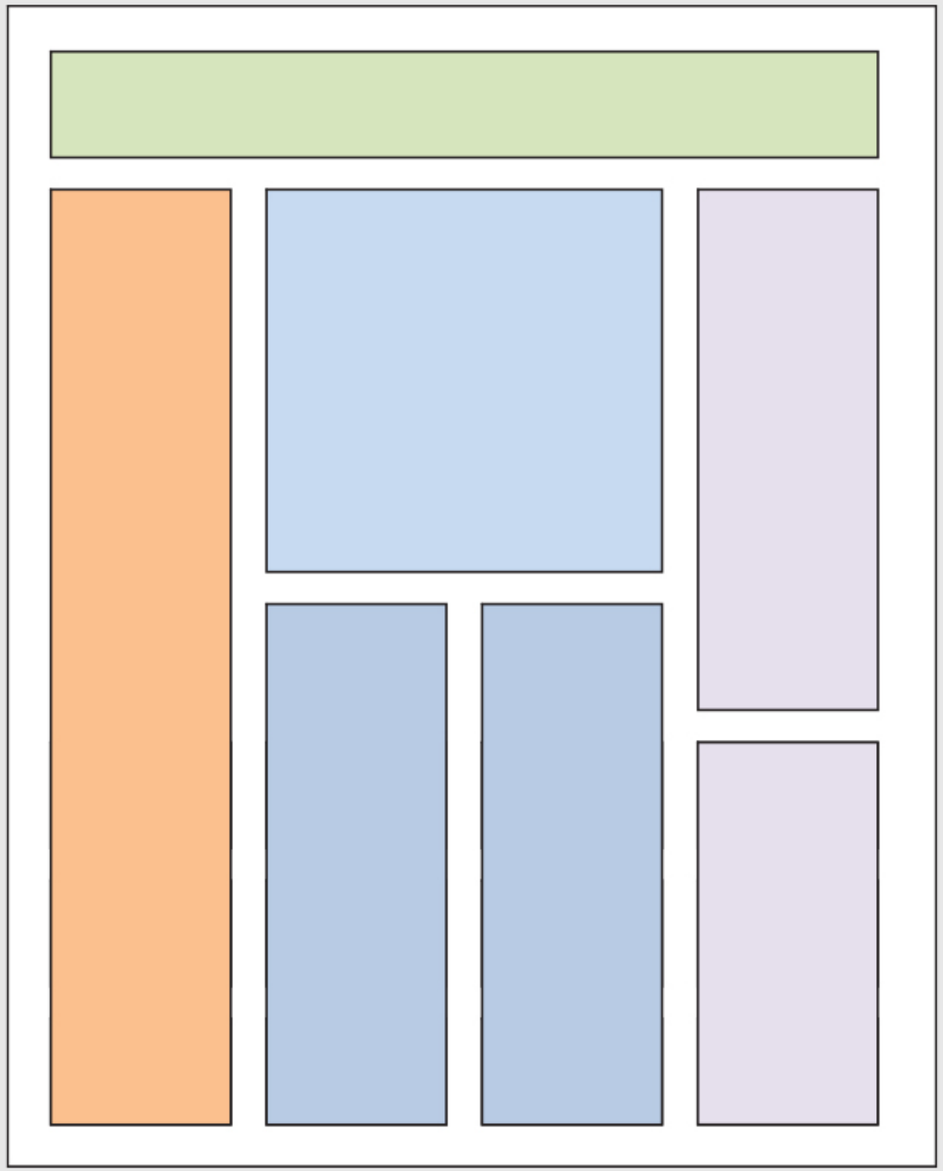


Figure 2-15: Four-column grid with layout elements

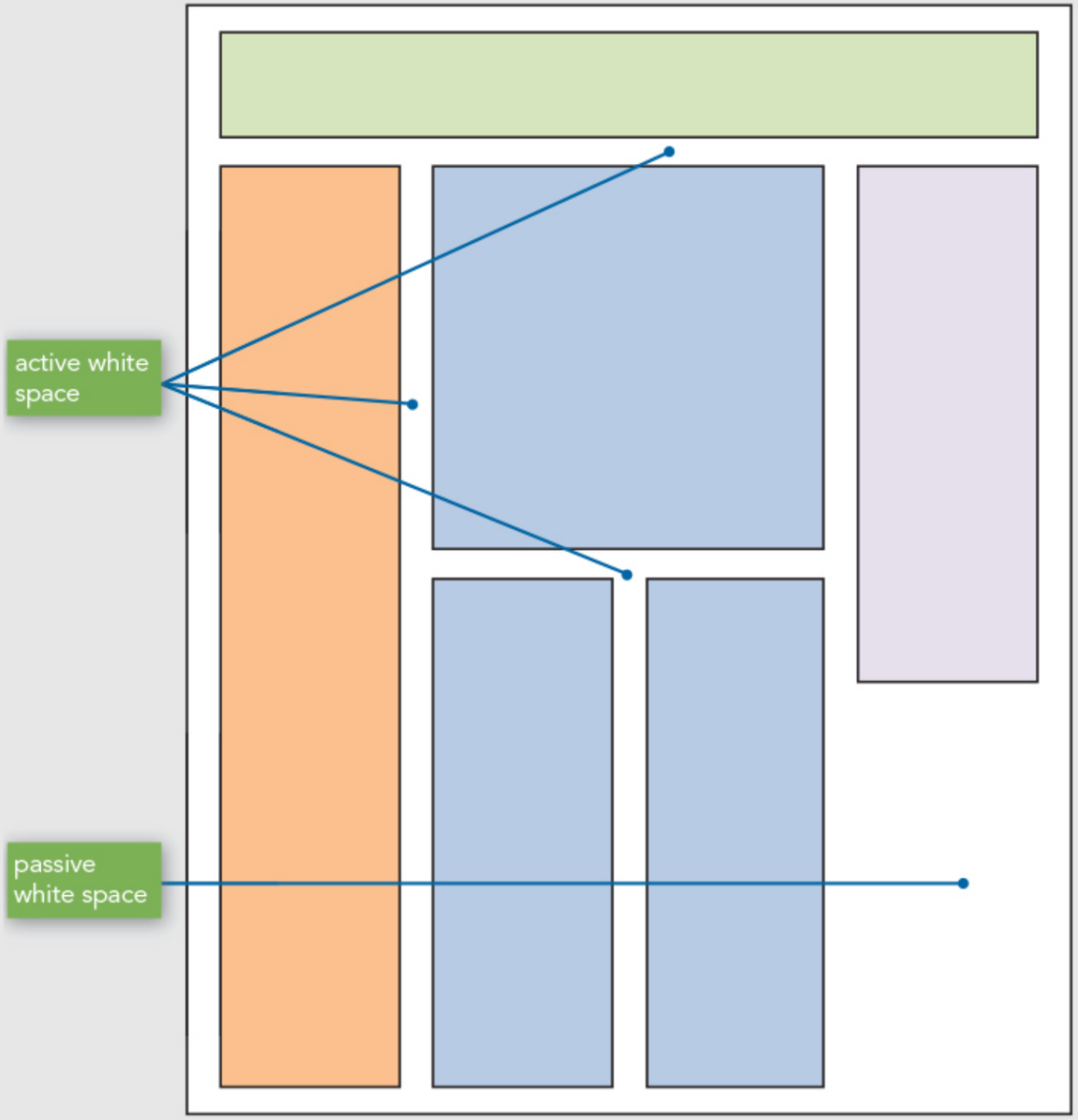


Figure 2-17: Areas of active and passive white space

Design for the User

- Keep your design efforts centered solely on your user
  - Find out what users expect from your site
  - If you can, survey them with an online form
  - Create a profile of your average user
  - What do users want when they get to your site?

Use Active White Space

- White spaces are the blank areas of the page
  - Use white space deliberately
  - Good use of white space guides the reader

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Design for Interaction

- Think about how the user wants to interact with your information
- Design for your content type
- Decide whether the user is likely to read or scan
- Design pages for reading or scanning based on the content type

Keep a Flat Hierarchy

- Do not make users navigate through too many layers of information
- Include sections on topic-level navigation pages
- Create content sections organized logically by theme
- Follow the three clicks rule
- Use consistent navigation
- Consider providing a site map

Use Hypertext Linking Effectively

- You determine where users can go on your web site
- Let users move from page to page or section to section as they please
- Use contextual linking
- Avoid the use of “click here”
- Provide plenty of navigation options

Reformat Content for Online

- Cannot post print documents directly online – only in PDF
- Text length, font, and content length do not transfer well
- Re-design paper content for online display
- Do not centre align all your text on a webpage – choose one alignment.

Design for Accessibility

- Design your pages to be accessible to users with disabilities or technological barriers
- Common accessibility features can be unobtrusive additions to your site
- Developing accessible content naturally leads to creating good design
- Follow W3 Accessibility Initiative guidelines at www.w3.org/WAI/

Accessibility Features

- Optional navigation links—Lets users with screen readers skip repetitive navigation links
- High-contrast version—Lets users switch to a legible alternate page version to make text easier to read
- User-controlled font size—Lets users adjust the font size for optimal legibility
- Access keys—Lets users access sections of the site with keystrokes
- Alternative text – Required for all images