

Project Related Important Concepts

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- Jennifer Robbins, Learning Web Design, O'Reilly, 5th edition, May 2018, ISBN 978-1-491-96020-2.

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OVERVIEW

- ▶ Website creation roles
- ▶ Equipment
- ▶ Software
- ▶ Multitude of devices
- ▶ Web standards
- ▶ Progressive enhancement
- ▶ Responsive web design
- ▶ Accessibility
- ▶ Site performance

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Website Creation Roles

- Content
- Design
- Coding: Frontend
- Coding: Backend

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Content

- ▶ **Information architecture**
Organizes content logically for ease of findability
- ▶ **Content strategy**
Ensures that text supports the brand/marketing goals;
may include data modeling and updating schedules as well
as extending brand voice to social media

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Design

- ▶ User Experience (UX)
Makes sure whole experience with the site and the product is favorable based on user testing
- ▶ Interaction Design (IxD)
Focuses on how to use the site, including its User Interface (UI)
- ▶ Visual Design
Creates the “look and feel” of the site

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Coding: Frontend Development

- ▶ Authoring/Markup (HTML) **Assignment 2**
- ▶ Styling (CSS) **Assignment 3**
- ▶ JavaScript and DOM Scripting Frameworks **Assignment 4**

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Coding: Backend Development

- ▶ Server software (ex: Apache, MS IIS)
- ▶ Web application languages (ex: PHP, Ruby, .NET)
- ▶ Database software (ex: MySQL, Oracle)

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Other Web Roles

- ▶ Product manager
Guides product in a way that meets business goals
- ▶ Project manager
Coordinates team, schedule, and processes
- ▶ SEO (Search Engine Optimization) specialist
Ensures site is highly ranked in web searches
- ▶ Multimedia producer
Creates sound, video, animation, and interactive media

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Typical Equipment

- ▶ Solid up-to-date computer
- ▶ Large monitor (or several)
- ▶ Second computer for testing
- ▶ Mobile devices for testing
- ▶ Scanner and/or camera (for artwork)

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Software Typically Used

- ▶ Coding tools
- ▶ User Interface/layout tools
- ▶ Web graphic creation tools
- ▶ Variety of browsers
- ▶ File management/transfer tools

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Some Important Concepts

- ▶ Multitude of devices
- ▶ Web standards
- ▶ Progressive enhancement
- ▶ Responsive web design
- ▶ Accessibility
- ▶ Site performance

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A Multitude of Devices

- Your web pages will be viewed on all manner of devices, large and small, fast and slow, visual and non-visual.
- One of the challenges of being a web designer is creating a good experience regardless of the browsing device.



Brad Frost's depiction of the web viewing environment.

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Web Standards

- ▶ The World Wide Web Consortium (W3C) writes the specifications for web technologies:
[w3.org/standards](https://www.w3.org/standards)
- ▶ Sticking with web standards ensures **consistency** across browsers and **forward-compatibility**.

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Progressive Enhancement

Progressive enhancement is a strategy for coping with unknown browser capabilities.

- ▶ Start with baseline experience that provides content and basic functionality even on minimal browsers and assistive devices
- ▶ Layer on styles, scripts, and advanced features for browsers that can handle them
- ▶ Finish with “nice to have” effects (like animation) that aren’t critical to the brand or functionality

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Progressive Enhancement (cont'd)

- ▶ HTML strategy
Write in a logical order, with elements marked up in a meaningful way
- ▶ Style strategy
Use universally supported properties as the baseline and add cutting-edge styles as embellishment
- ▶ Scripting strategy
Make sure basic functionality (like content display, linking, and forms) are possible when JavaScript is turned off. Enhance the experience when JavaScript is available

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Responsive Web Design

Responsive web design is a strategy for dealing with unknown screen size:

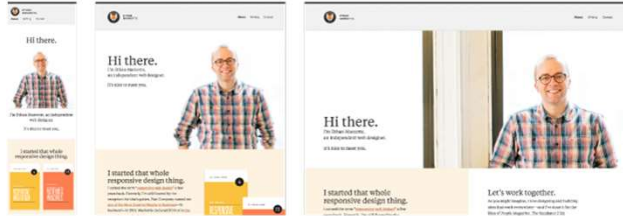
- ▶ The heart of the method is using one HTML source for all devices and swapping out the styles based on the size of the browser window (viewport)
- ▶ It is preferred to building separate sites just for mobile devices (“m.dot” sites)
- ▶ It may not be the solution for all sites, but making sites that adapt to screen size is now common practice

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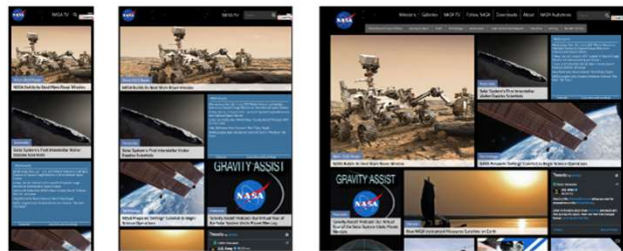
Responsive Web Design (cont'd)

Page layout changes based on the width of the screen.

Ethan Marcotte personal site
ethanmarcotte.com



NASA
nasa.gov



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Accessibility

- ▶ **Users access web content in many ways:** Keyboard, mouse, voice commands, screen readers, Braille output, magnifiers, joysticks, foot pedals, and so on
- ▶ **Four broad categories of disabilities** affect how people interact with computers:
 - ▶ Vision impairment
 - ▶ Mobility impairment
 - ▶ Auditory impairment
 - ▶ Cognitive impairment

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Accessibility (cont'd)

- ▶ There are measures you can take to improve the accessibility of your web pages.
- ▶ The Web Accessibility Initiative (WAI) is the group responsible for making web technologies accessible: www.w3.org/WAI.
- ▶ The WAI-ARIA (Accessible Rich Internet Applications) specification documents accessibility features.

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Site Performance

- ▶ It is critical that web pages display as quickly as possible.
- ▶ Users on mobile devices generally leave a page if it does not display in 3 seconds.
- ▶ Even milliseconds can affect the bottom line on retail sites.

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