Prototyping for UX

Training session for Candi

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What we'll cover

- Web Standards (HTML, CSS, JavaScript)

- The Responsive Web

- Development frameworks

- An introduction to prototyping

- Prototyping tools

- Summary

- Reading list

- Links

Web Standards

Web Standards

- An evolving collection of open* technologies used for the development of an accessible and affordable web.

- Includes HTML, CSS and JavaScript (amongst many others).

- For more info see http://www.w3.org/standards/

*As opposed to the proprietary technologies developed by the major browser vendors in the late 1990s browser wars: http://en.wikipedia.org/wiki/Browser_wars

Web Standards: HTML

- HTML (**H**yper**T**ext **M**arkup **L**anguage) is used to semantically structure documents so they can be accessed via the internet.

- Consists of a set of "tags" that providing meaning to parts of a document.

- e.g. `<h1>This is a heading</h1>`

- It should be used solely for its structural properties leaving presentation and interaction to the likes of CSS and JavaScript.
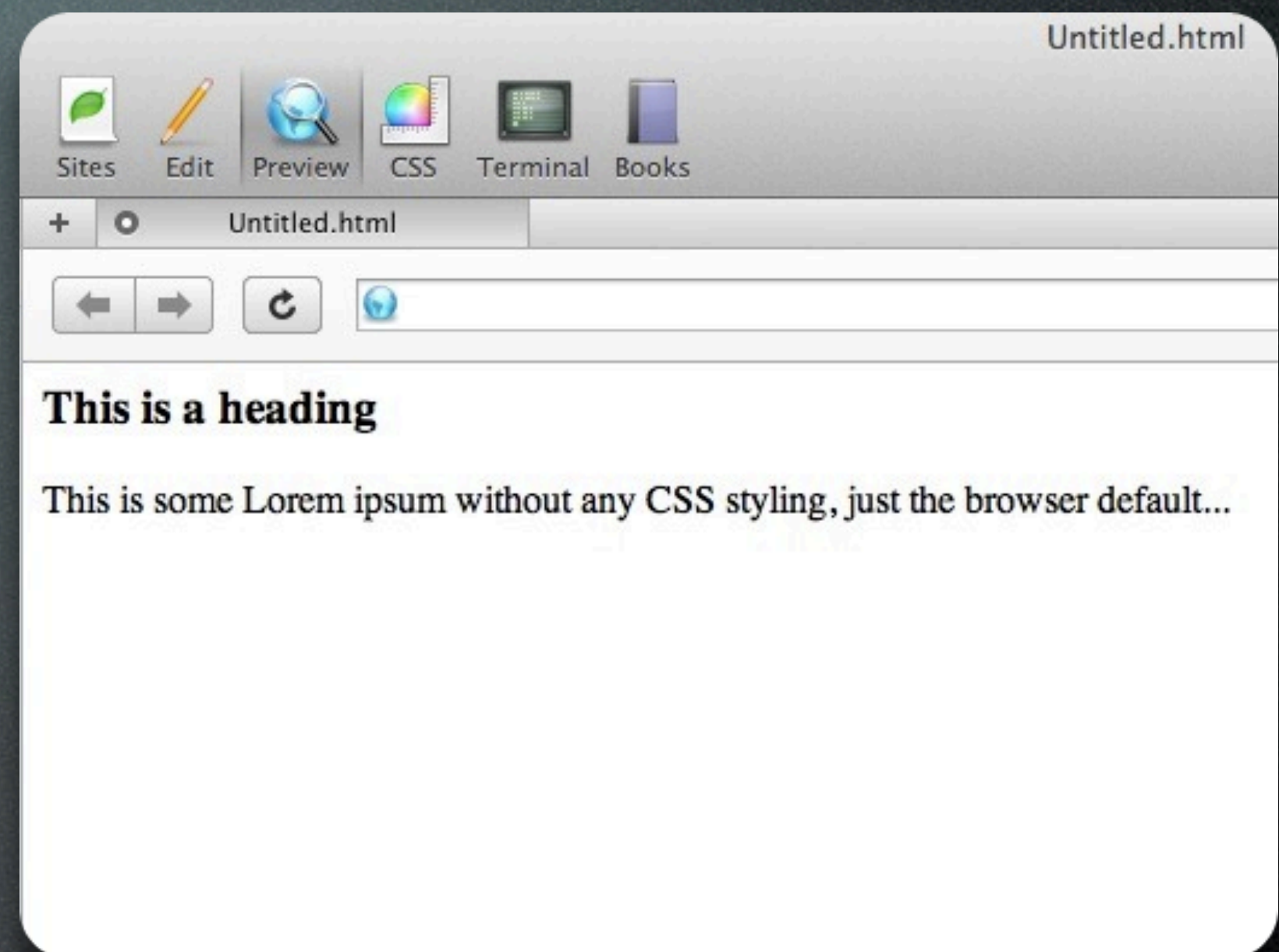
Simple HTML document

Web Standards: CSS

- CSS (**C**ascading **S**tyle **S**heets) are used to add visual style to HTML documents.

- Consists of a set of cascading rules that allow you define how HTML element looks on a page.

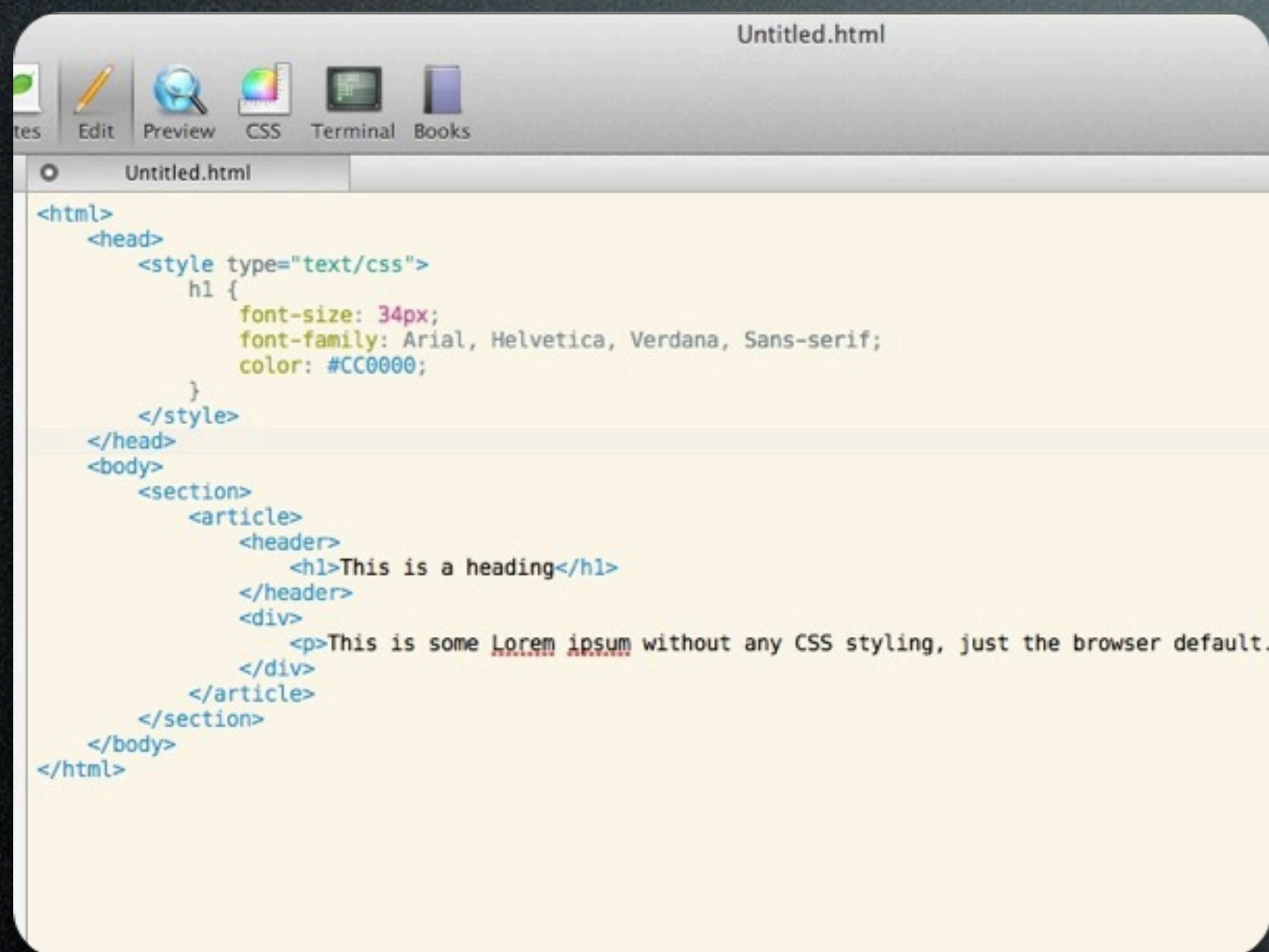- Should be used solely for presentation purposes, stored in an external file.

Web Standards: CSS

- Supports different media allowing developers to create specific "look and feels" for different devices e.g. Desktop, Print, Handheld, Projector etc.

- Supports different screen resolutions to allow developer to target different sized devices e.g. smartphones, tablets etc.
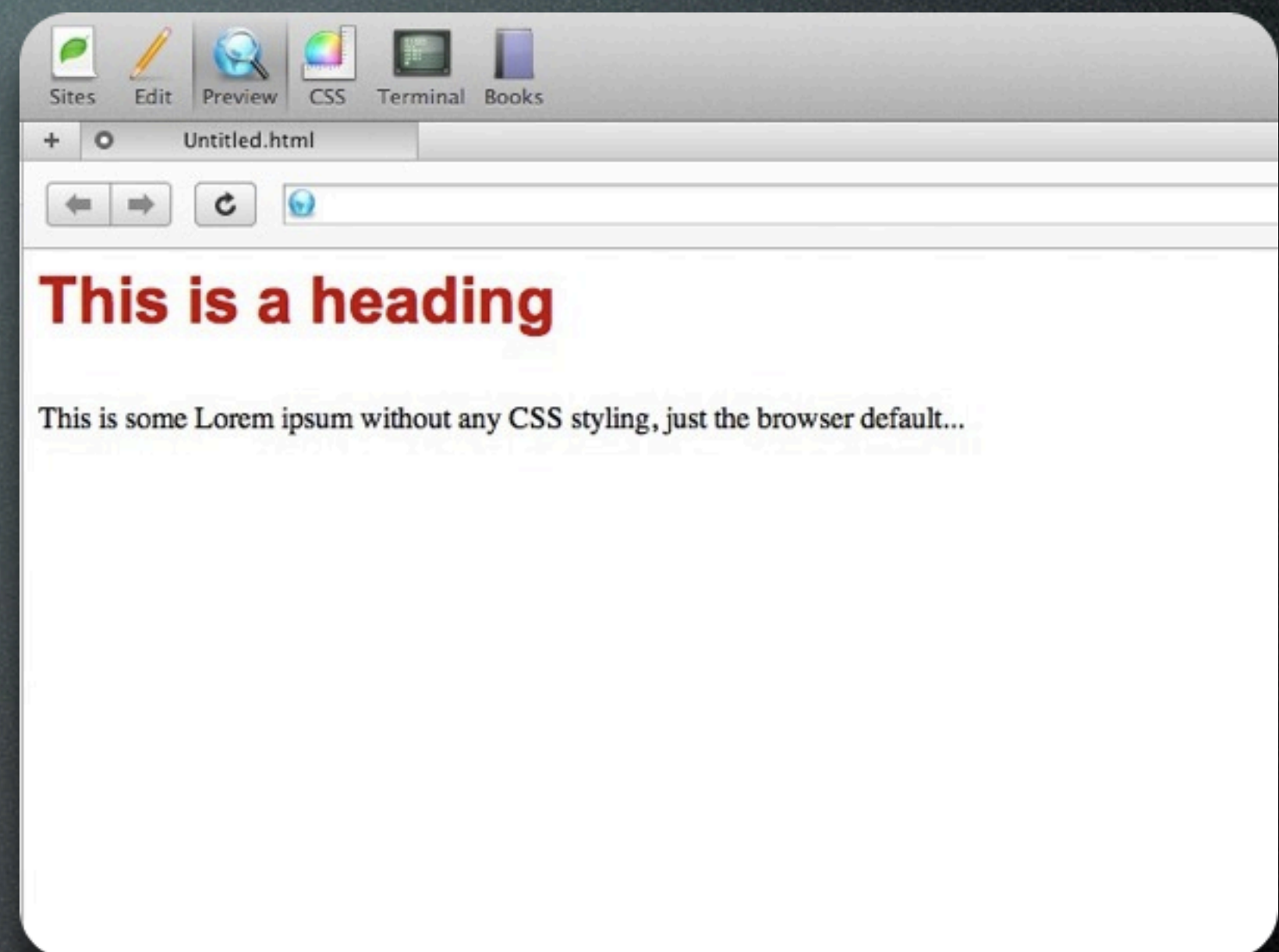
- e.g. headings that are 34px and red:

```
h1{

	font-size: 34px;

	color: #CC0000;

}
```

Simple CSS styling

Web Standards: JavaScript

- JavaScript is a client-side scripting language used to provide interactivity to web-based documents and applications.

- Commonly used for form validation, feature detection, animations/transitions etc.

- Should be used as part of progressive enhancement ensuring the content and functionality of a page/application is still accessible even if JavaScript is unavailable.

Web Standards: JavaScript

- JavaScript has its own syntax and can be placed inside HTML documents or linked to from an external file.

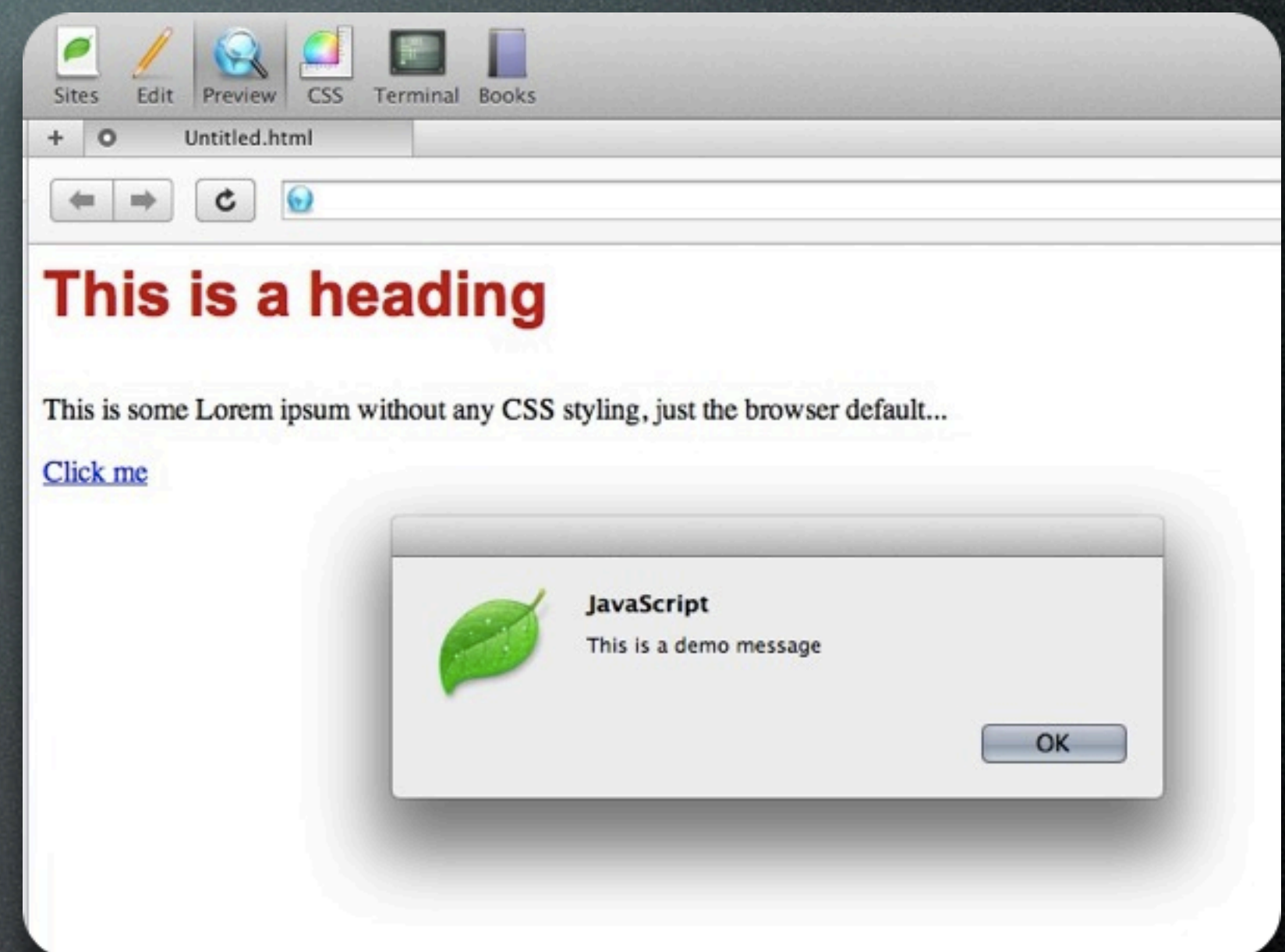- e.g. Show an alert box to the user.

```
function alertUser(textString){

    alert(textString);

}

alertUser("This is a demo message");
```

Simple JavaScript Function

The Responsive Web

The Responsive Web

- An approach to designing web-based documents/applications that allows for the interface to adapt or respond to the context in which it is viewed e.g. Desktop web browser, tablet or smartphone.

- Built upon Web Standards-based technologies and used the @media query in CSS to serve up customised styling for different contexts.

- Can be combined with context-sensitive JavaScript to provide customised functionality dependant on the device e.g. reformatting website navigation from a tabbed based layout to a single drop-down list.
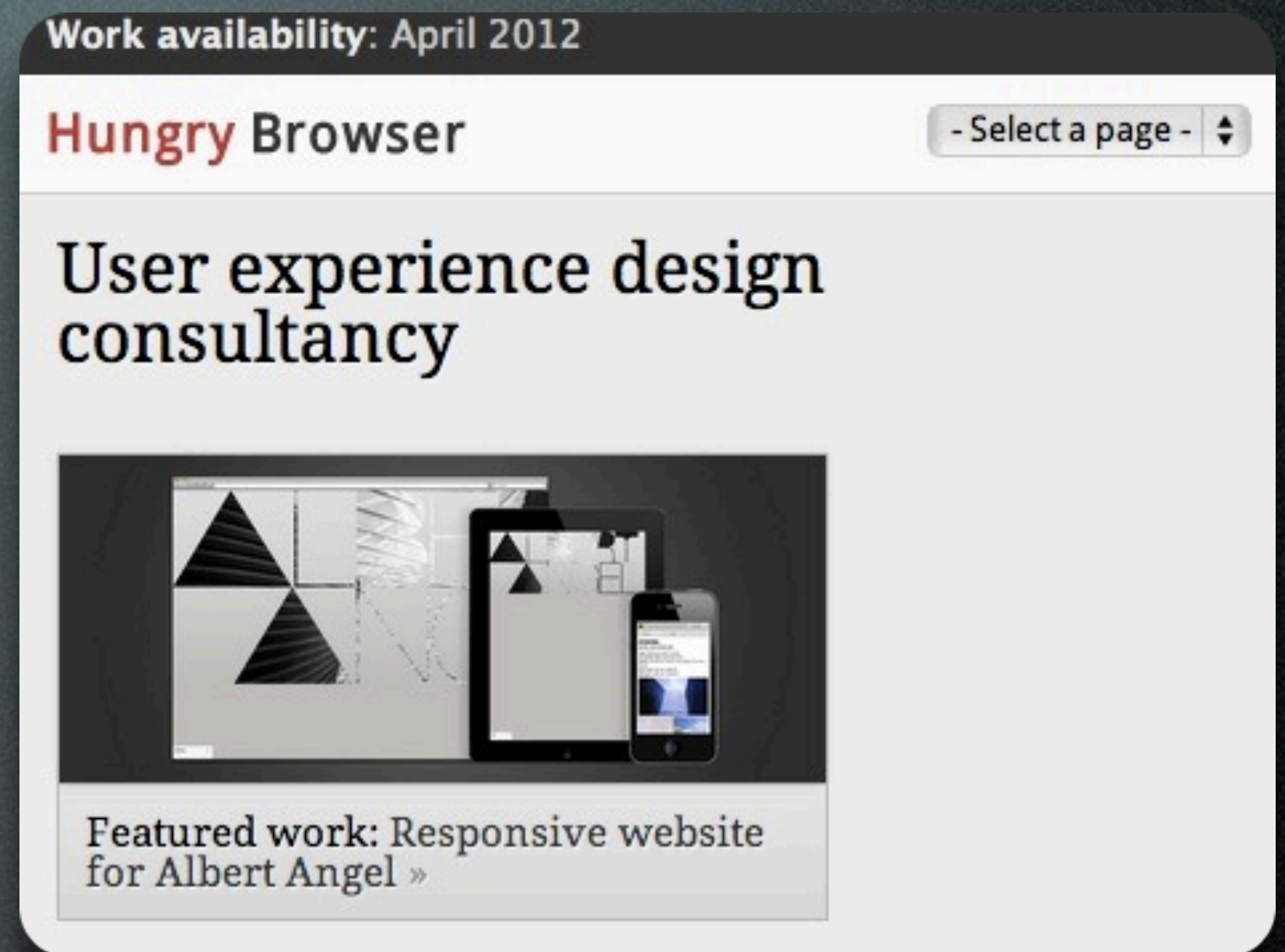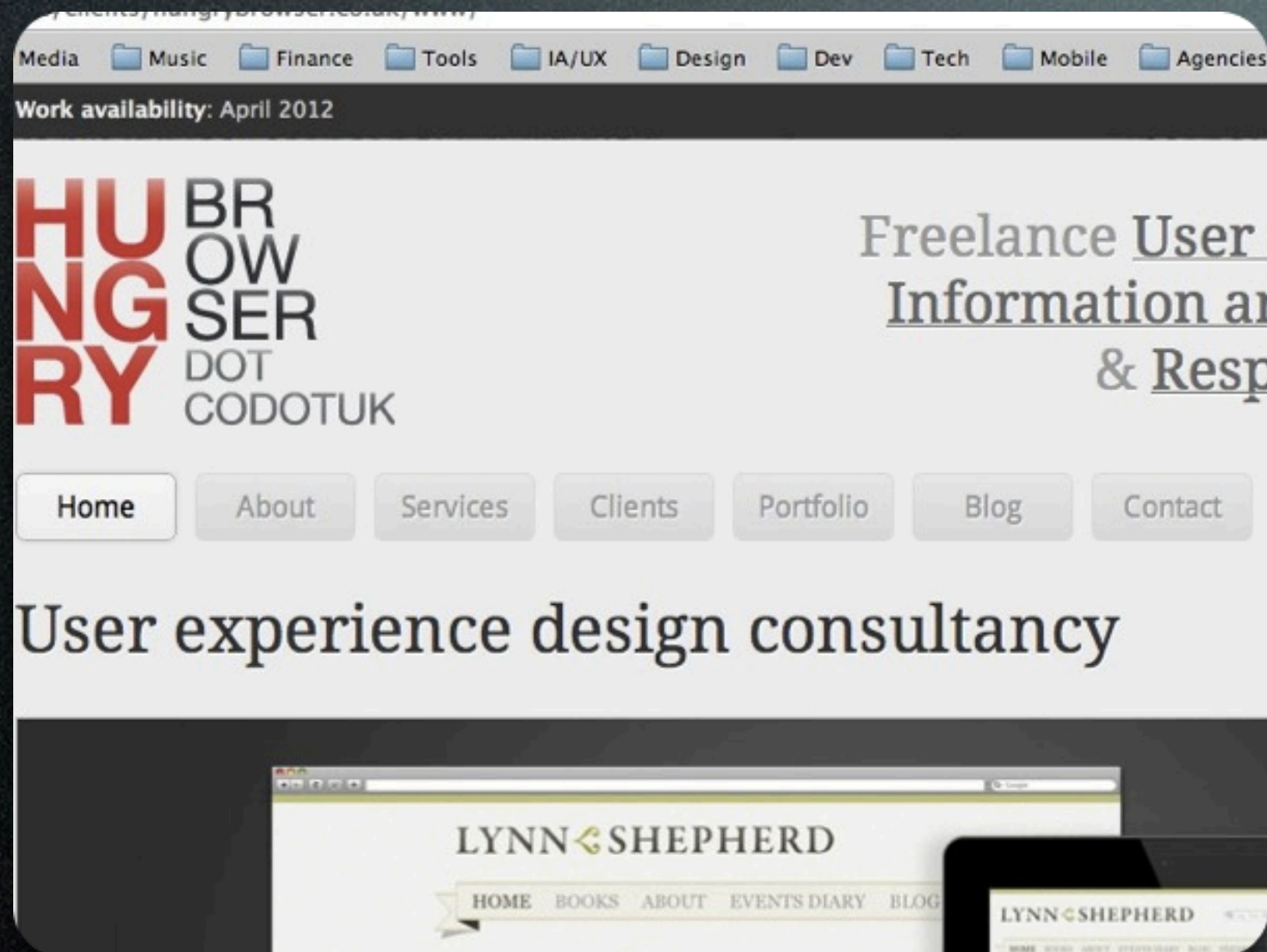
Responsive navigation design

Development frameworks

Development frameworks

- Enable web designers and developer to rapidly build web-based documents and applications using a common set of rules.

- Speeds up repetitive tasks.

- Ideal for creating rapid prototypes.

- Many options available for different purposes:

  - JavaScript (jQuery, MooTools, ProtoType JS).

  - CSS (960 Grid, Twitter BootStrap, Foundation, Gold Grid).

  - PHP/MySQL (WordPress, Drupal, Joomla).
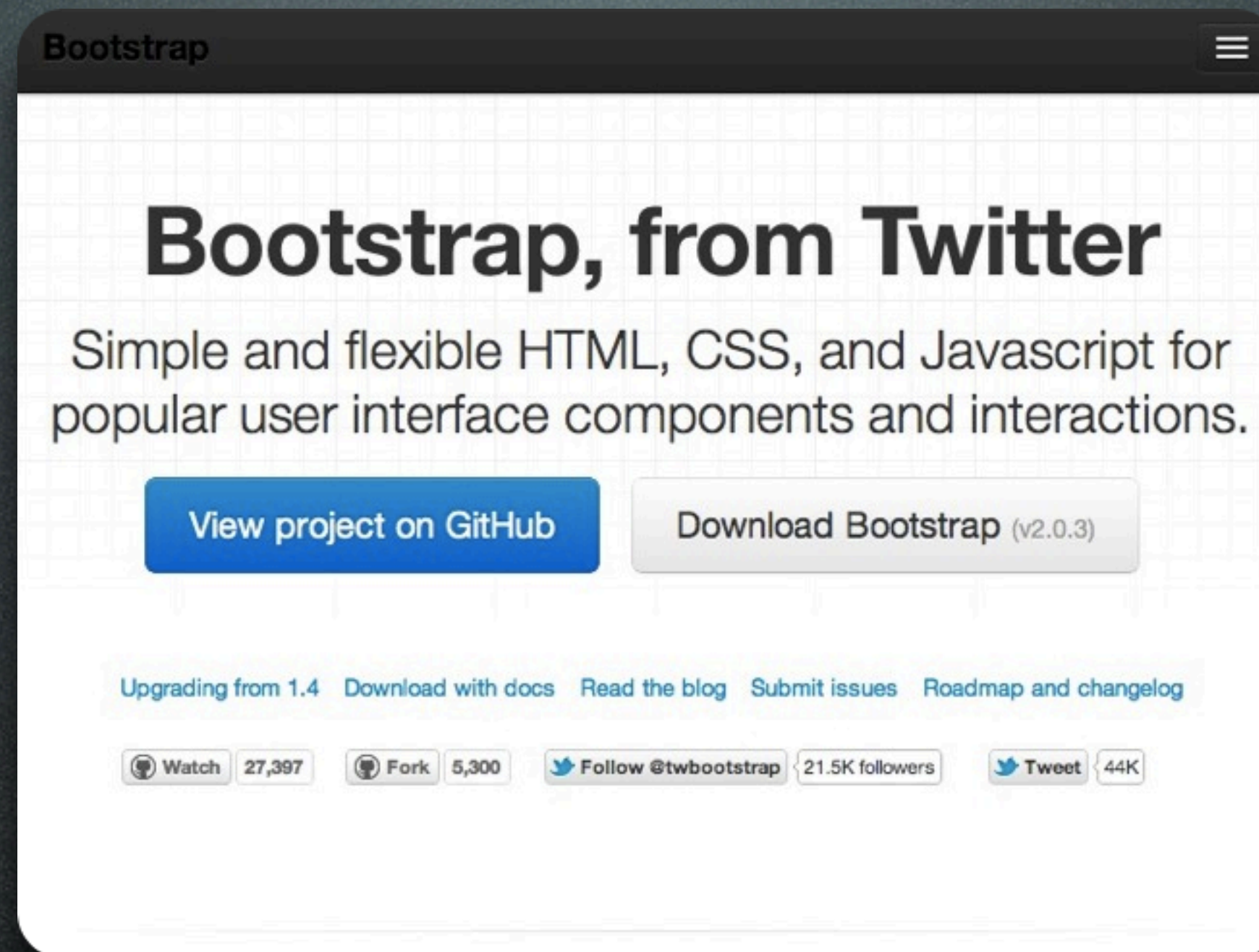
Twitter BootStrap

Twitter BootStrap

- An HTML/CSS/JavaScript framework that contains:

  - A responsive grid layout.

  - A collection of pre-styled interface components.

  - A full set of authoring documentation.

  - An accompanying OmniGraffle/PhotoShop stencil library.

  - http://twitter.github.com/bootstrap/

Prototyping

An introduction to prototyping

- Prototyping is a design philosophy for people who like to design and make things.

- Allows the product or service to practice being itself and the maker to learn more about the design through testing it.

- Many approaches to prototyping and many different tools.

- The tool you use will depend on the purpose of the prototype, your skills and the time and budget available.

An HTML Prototype built with Twitter Bootstrap

Prototypes v's wireframes

- **Advantages**

  - Prototypes are real/tangible, wireframes are static.

  - Prototypes are the medium (web-based).

  - Prototypes can be quicker to develop and update.

  - Prototypes can be annotated just like wireframes.

  - Prototyping in HTML allows you to get a better feel for the medium.

- **Disadvantages**

  - More in-depth knowledge needed to develop an HTML prototype than a wireframe.

  - Not all team members have the skills/tools to develop prototypes.

  - Clients have become used to seeing wireframes with detailed annotations. Requires a change in thought/process.

Prototyping tools

- HTML/CSS/JavaScript

- Frameworks e.g. Bootstrap

- Pen/pencil and paper

- UX Sticky Notes

- GUI Magnets

- UXPin App

- Adobe Indesign

- Adobe Fireworks

- Adobe Proto

- Abobe Dreamweaver

- Axure RP Pro

- Visio

- Balsamiq Mockups

- Protoshare

- Justinmind Prototyper

- Handcraft

- Invision

- iPlotz

- Keynote/Powerpoint

Summary

Summary

- HTML/CSS/JavaScript are (Web) Standards-based technologies that are used for developing open, semantic, forward thinking web-based documents and applications.

- Frameworks enable designers and developers to rapidly develop prototypes.

- Prototypes provide a means for developing functional artefacts that can be rapidly tested and improved.

- There are many prototyping tools available to suit your skills/context/ budget.

- Prototyping with HTML/CSS/JavaScript (and a framework) allows you to get a better feel for the medium and to design and test a more realistic artefact than a wireframe can.

Reading list

Reading list (web articles)

- 3 Reasons Why Learning To Code Makes You A Better Designer

- An Introduction to HTML Prototyping

- The basics of HTML

- CSS basics

- Should user interface designers be able to build what they design?

- Sketching in Code: the Magic of Prototyping

- Web designers who can't code

Reading list (books)

- Prototyping: A Practitioner's Guide by Todd Zaki Warfel

- Designing with Web Standards by Jeffrey Zeldman

- HTML5 For Web Designers by Jeremy Keith

- CSS3 For Web Designers by Dan Cederholm

- Responsive Web Design by Ethan Marcotte

Links

- http://www.html5rocks.com/

- http://www.jquery.com/

- http://www.alistapart.com/

- http://www.abookapart.com/

- http://rosenfeldmedia.com/

- http://uxmag.com/

- http://konigi.com/

- http://www.boxesandarrows.com/

- http://wireframes.linowski.ca/

- http://www.ixda.org/

- http://iainstitute.org/

- http://960.gs/

- http://cssgrid.net/

- http://www.webdesignerdepot.com/

- http://www.smashingmagazine.com/

- http://webdesignledger.com/

Questions