Web Design 2

Day 2

1) Attendance

2) Why are we here?

**KEY: to make you more competent at looking at and designing code**

-> **(show code example)**

+this is just a snippet

+can anyone tell me what they see here?

->Who here has seen 'The Matrix'?

+Explain if necessary

+20 second scene between Cypher and Neo **(play scene)**

-> **(RETURN to code sample)**

+so by semester's end you may not be expert

+but some of this **(sample)** will start to look like this **(show CNN.com**

**homepage)**

3) Time Warp

**KEY: A brief look back at the history of the internet**

**->before: facebook, dating, lolcats**

->p2p

+what does this mean to you?

+not peer to peer, but in 50's 'point to point'

+Point to Point: communication connection between 2 nodes

+Any Examples from back then?: Telephone, 2 Way Radio, Private "Leased" Lines, perhaps even the telegraph of the 19th century

+Similar to how sci-fi predicts the world of the future

+**(VIDEO)** As early as 1974, people were predicting today

* + - * Futurist and Scifi author Arthur C Clarke Interviewed by ABC News

+"Packet switching" research underway

-DARPA was humorously said to be working on something

that would "run over 2 cans and a string"

+By the early 1982

-Protocol: TCP/IP Standardized by DoD/DARPA

(known in some places as DoD protocol)

**KEY: SUPER REDUCTIVE BASE LEVEL of TCP/IP Explained (from WIKI)**

* 1. The [link layer](http://en.wikipedia.org/wiki/Link_layer) (commonly [Ethernet](http://en.wikipedia.org/wiki/Ethernet)) contains communication technologies for a [local network](http://en.wikipedia.org/wiki/Local_area_network).
  2. The [internet layer](http://en.wikipedia.org/wiki/Internet_layer) (IP) connects local networks, thus establishing [internetworking](http://en.wikipedia.org/wiki/Internetworking). (Routing, air traffic controlling the information packets)
  3. The [transport layer](http://en.wikipedia.org/wiki/Transport_layer) (TCP) handles host-to-host communication. (Offers services like Muxing/Multiplexing for instance, manages resources)
  4. The [application layer](http://en.wikipedia.org/wiki/Application_layer) (for example [HTTP](http://en.wikipedia.org/wiki/HTTP)) contains all protocols for specific data communications services on a process-to-process level (for example how a web browser communicates with a web server.)

+What you need to know: By early-80's Protocols/Standards in Place for the

Delivery of Data Packets

+BBS Popular during this time (even bled into the 90's)

-DOWNLOAD SHAREWARE OF WOLFENSTEIN and DOOM!

+Usenet popular during this time

**KEY: Birth of the WWW**

**->Networking allowed for certin things:**

+1989/1990 Tim Berners-Lee (current director of the W3C)/Robert Cailliau propose to use HYPERTEXT as a means of accessing information across a variety of web nodes

->HOW IS HYPERTEXT DIFFERENT FROM SAY, A BOOK?

-Hypertext -

-"Colored text that links you places"

-Text that is displayed on a computer screen with a goal of navigability. Links, are the heart of the internet.!

+Created at CERN

-Home of the LHC super collider

+Project introduced to the public by Dec 1990

**+(SHOW CLASS CHACHED "VERY FIRST WEBSITE")**

+By early 90's we had commercial access to the Internet

**-(PLAY KIDS VIDEO)**

**+Not everyone was as smart as those kids however. (Today show)**

4) Content Creation:

**KEY: Why am I Telling you all this?**

-> The content of these packets are what we are going to be focusing on building in class.

-> We will build the information that would be stored on a server waiting for people to access it.

**KEY: KINDS OF FILES WE WILL BUILD**

-> Just like word: doc (or more recently DOCX)

powerpoint: pp

(what does excel create? what does photoshop create?)

we will create -

.html - our main source of content

.css - directors for styling the content in the html

.js - interactive elements/apps for reference

-> KEY: IDE integrated development environment

* + - Used to Build these documents

-Aptana

-open source

-cross platform

-free

-> these files would be stored on a server along with /images folders, and whatever else your website needs to run

-> should typically be self contained to avoid dead links, etc.

5) Intro to HTML:

**KEY: STARTING THE JOURNEY WITH HTML**

-> If you wanted, you could have a web page that consisted of JUST and html document

-> What does HTML stand for?

-HYPER TEXT MARKUP LANGUAGE

-entire coding language based on hyper text and linking

-fun fact: HOTMAIL

**KEY: Different types of HTML**

-> Standards vs Recommendations

While HTML5 consumption if growing, W3C recommends certain DOCTYPES and protocols when designing a webpage for maximum compatibility.

->

-> Compatibility

+IE6 is the bane of Web Developers everywhere

**+ (SHOW GRAPH OF BROWSER USAGE)**

+ not all browsers are created equal

-while ie10, up to date firefox, chrome supports html5

-legacy browsers may not

**-WHO IS USING THESE BROWSERS?**

+In class we will straddle the gap, do classic HTML 3/4 as well as introduce 5

**KEY: I Tell you this because it effects our very first line of code**

->Very first thing in any HTML document

+Sets up parameters and abilities of document

-> Setting up DOCTYPE

+Examples of DOCTYPE

HTML 5

<!DOCTYPE html>

### HTML 4.01 Strict

This DTD contains all HTML elements and attributes, but does NOT INCLUDE presentational or deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">

### HTML 4.01 Transitional

This DTD contains all HTML elements and attributes, INCLUDING presentational and deprecated elements (like font). Framesets are not allowed.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">

### HTML 4.01 Frameset

This DTD is equal to HTML 4.01 Transitional, but allows the use of frameset content.

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN" <http://www.w3.org/TR/html4/frameset.dtd>>

**-(HEAD TO SEVERAL SITE TO ILLUSTRATE PRESENCE OF DOCTYPE IN ALL SITES)**

-> Why different doctypes?

-can dictate availability of depreciated elements/new tags

**-> For our purposes we will use the HTML5 standard until we need to look elsewhere.**

6) HTML Structure:

->The basic Layout of an HTML Document

+Set your DOCTYPE

+rest is CONTAINERS for storing content

**+(USE PICNIC BASKET ANALOGY)**

+these "containers are called "tags"

-images

-text

-links

->Every tag has two halves <> and </>

+STRESS: this is where resource retrieval comes in

-I wouldn’t expect you to be able to bake by showing you the recipe and then taking away the cookbook

**KEY: use sites like the W3C, and the W3 Schools to your advantage as you code**

**-**these sites will commonly list types of tags as well as css techniques

**LETS HEAD INTO BRACKETS!!**

**KEY: THE MOST IMPORTANT TAGS IN THE BASE LEVEL HTML DOC**

<html>

**-**Denotes the edges of the document itself

<head>

-creates a header area

-can contain <title> tag

+what would this do?

<body>

-will consist of the bulk of your content and contain many other tags

**KEY: THE MOST IMPORTANT TAGS IN THE BODY TAG**

<h1> - <h6>

-this tag creates headers of various sizes

-from very large (h1) to not so large (h6)

<a>

-this is the tag for a 'link'

-wont do much on its own buuuuttt........

-when given an **ATTRIBUTE** (which is an element inside the tag)

href="link.com"

<img>

-places images

uses attribute - src=""