

Web Technology

CS1522/CS5548/CS5574

“Give a person a fish and you feed them for a day; teach that person how to use the internet and they won’t bother you for weeks.”

“If you have a website, it
makes your small business
look big.”

Introduction



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What will I get from this course?

- Review of the current internet technologies, motivations and memes.
- Learn to how to create graphics and page templates.
- Overview of HTML and CSS to design web pages.
- Introduction to JavaScript and associated libraries (jQuery).
- Use of AJAX to create interactive pages.
- Learn how to create dynamic sites with PHP.
- How to embed other technologies into websites. e.g. YouTube, Twitter, Facebook, Google+ etc
- How to maintain, market, advertise and monopolize on your website.

Who is teaching me?

Course Coordinator

- Nigel Beacham
- n.beacham@abdn.ac.uk



Lectures

Tuesday – David Corsar



Thursday – Matt Dennis



Design / Development



```
Sites Edit Preview CSS Terminal Books  
index.php O style.css  
  
1 <?php get_header(); ?>  
2  
3 <div id="mid" class="index">  
4 <!-- Start slider -->  
5 <div class="stripPlayer">  
6 <div class="panelContainer">  
7  
8 <?php if (have_posts()): ?>  
9  
10 <?php while (have_posts()): the_post(); ?>  
11 <div class="panel"><?php the_ID(); ?><?php the_title(); ?>>  
12 <div class="wrapPost">  
13 <?php $image = get_post_meta($post->ID, 'leadImage', true); ?>  
14   
15 <div class="post-title">  
16 <a href="#">The Permalink ?> rel="bookmark" title="Permanent Link to <?php the_title_attribute(); ?>">  
17 </div>  
18 <div class="entry">  
19 <?php the_excerpt(); ?>  
20 </div>  
21 </div>  
22 </div>  
23 </div>  
24 </div>  
25 </div>  
26 <div class="panel" id="nav-panel">  
27 <div class="wrapNav">  
28 <?php bloginfo('template_directory'); ?>/images/where.jpg alt="" width="940" height="600" />  
29 <div class="post-title">  
30 <?php bloginfo('title'); ?>  
31 </div>  
32 <div class="entry">  
33 <span class="big" style="font-size: 1.5em;"><?php bloginfo('comments_rss2_url'); ?> Recent Comments </a><span>  
34 <?php bloginfo('comment_update_comment'); ?> New Entries </a><span> Older Entries </span>  
35 <span class="right" style="float: right;"><?php next_posts_link('Older Entries'); ?> <?php previous_posts_link('Newer Entries'); ?></span>  
36 </div>  
37 </div>  
38 </div>  
39 </div>  
40 </div>  
41 </div>  
42 <?php else : ?>  
43 <?php endif; ?>  
44 </div><!-- panelContainer -->  
45 </div><!-- stripPlayer -->  
46 <?php get_footer(); ?>  
47 <?php get_sidebar(); ?>  
48 <?php get_header(); ?>  
49 <?php get_sidebar(); ?>  
50 <?php get_footer(); ?>  
51 <?php get_header(); ?>  
52 <?php get_sidebar(); ?>  
53 <?php get_footer(); ?>
```

Overview of the Lectures

Design

- Intro & Web Design Process (IN PROGRESS)
- Creating Interesting Pages
- Intro to CSS
- HTML and CSS
- Building a Website
- JS Advanced
- Using jQuery
- Social Networking
- Launching a Website
- Managing a Website

Development

- The Internet
- Intro to HTML
- More about HTML
- HTML Forms
- Intro to JavaScript
- More about JavaScript
- AJAX and jQuery
- PHP part 1
- PHP part 2
- PHP part 3
- Website Tools

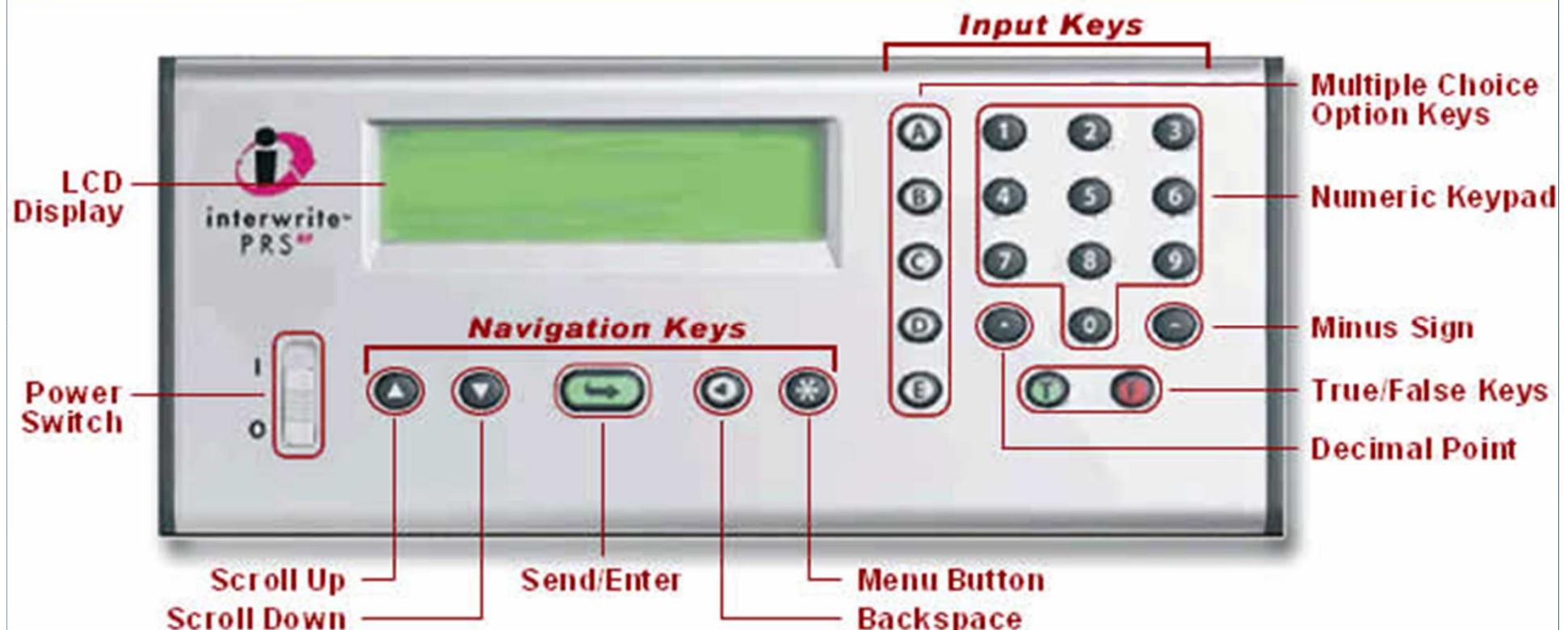
Lectures & Practicals – CS1522

- 2 Lectures per week
 - Tuesdays (3pm-4pm) Fraser Noble FN2
 - Thursdays (2pm-3pm) Fraser Noble FN2
- 1 Practical per week (choose from):
 - Tuesdays (10am-noon) Meston 5
 - Fridays (noon-2pm) MacRobert MR117
 - Fridays (2pm-4pm) MacRobert MR117

Lectures & Practicals – CS5548, CS5574

- 2 Lectures per week
 - Tuesdays (3pm-4pm) Fraser Noble FN2
 - Thursdays (2pm-3pm)) Fraser Noble FN2
- 1 Practical per week:
 - Thursday (9am-12pm) Meston G16

Interactive Lectures



The Competition

- If you feel confident about your work, send us the folder with your weekly practical.
- We will pick the top three best submissions
- Best will be published as the solution the following week.
- Two amazon.co.uk vouchers at the end of the course:
 - Student with most published solutions
 - Best “one-off” submission



Bit of a blank canvas?

Thinking of giving them a miss?



Assessment & Coursework

- End of term assessment worth 75%
 - CS1522: Multiple Choice.
 - CS5548, CS5574: Multiple Choice, Short and Long Written
 - Will feature questions from lectures and practicals.
- Coursework worth 25%
 - Continuous Assessment.
 - Issued at week 3.
 - Do not wait till the last week!

Course Information and Materials

The screenshot shows a web browser window displaying course information. The URL is https://abdn.blackboard.com/webapps/blackboard/content/listContentEditable.jsp?content_id=_753382_1&course_id=_22327_1&mode=reset. The page title is "Course Information – CS15...". The browser toolbar includes options like "Most Visited", "Latest Headlines", "Import to Mendeley", "Readable", and "From Google Ch...". The top navigation bar for "MyAberdeen" includes links for Home, Courses, Organisations, Content, Feedback Logs, Careers, Library, and Help. A user profile for "DAVID CORSAR" is visible. The main content area is titled "Course Information" and contains sections for Syllabus, Course Aims, Main Learning Outcomes, Practical skills, and Intellectual skills. The sidebar on the left lists course details: CS1522, CS5548, CS5574, SF1512 (2014-15): Web Technology, along with links for Home Page, Announcements, Course Information, Course Timetable, Course Materials, The Competition, Assessment/Exam, My Grades, Staff Contacts, Class Reps, Staff Notifications, and KL1570 Distance Students. The bottom of the sidebar says "COURSE MANAGEMENT".

Course Information

Syllabus

This course aims to provide students with a thorough introduction to Web design, covering aspects including producing graphics for websites, creating HTML and CSS, and adding interactivity to Web pages with JavaScript and PHP. Students will also be introduced to exploring and integrating social networking into Web pages with the use of the Facebook, YouTube and Twitter APIs.

Course Aims

This course introduces World-Wide Web technologies, and teaches how to build and maintain Web sites that are rich in information and content, interactive and easy to use. The design of Web sites is discussed and students are given opportunities to critique existing Web sites and design their own sites. Web site implementation using HTML is covered. The maintenance and management of large Web sites is discussed, and CSS introduced (up to intermediate level). The course also focuses upon interactivity in Web sites using JavaScript.

Main Learning Outcomes

Knowledge & Understanding of:

- Technologies and tools for the World-Wide Web.
- Design principles for the form and contents of information-rich Web sites.

Practical skills:

- Able to construct Web sites using HTML.
- Able to implement client-side interactivity using JavaScript.
- Able to use CSS to manage Web site presentation and maintenance.

Intellectual skills:

- Able to use knowledge and understanding of appropriate principles and guidelines to synthesize solutions for Web design.
- Able to critically evaluate alternatives.

Facebook Group

???

Join our

facebook[®]
Group



Twitter Tag

#AbdnWebTech

Why are we here?

LinkedIn

The best ideas start in the mind
of a Web Developer



If Facebook
were a country,
it would be
the third most
populated
in the world,
ahead of the
United States.

Only China
& India are
more populated.



500+ MILLION.

The average number of “Tweets” per day on Twitter



A simulated Twitter tweet card. It features a profile picture of a man (David Corsar) on the left, followed by his name and handle (@davidcorsar). The main text of the tweet reads: "This afternoon I will be delivering the first lecture on Web Technologies for the #AbdnWebTech course at Aberdeen Uni." Below the main text is a "Expand" link. In the top right corner of the card, there is a small "10s" icon. The entire tweet card is set against a white background with a slight shadow, which is itself set against a light blue background with radiating lines.

THAT'S 18X MORE THAN 2010'S VOLUME.





100 HOURS

The amount of video uploaded to YouTube **every minute.**

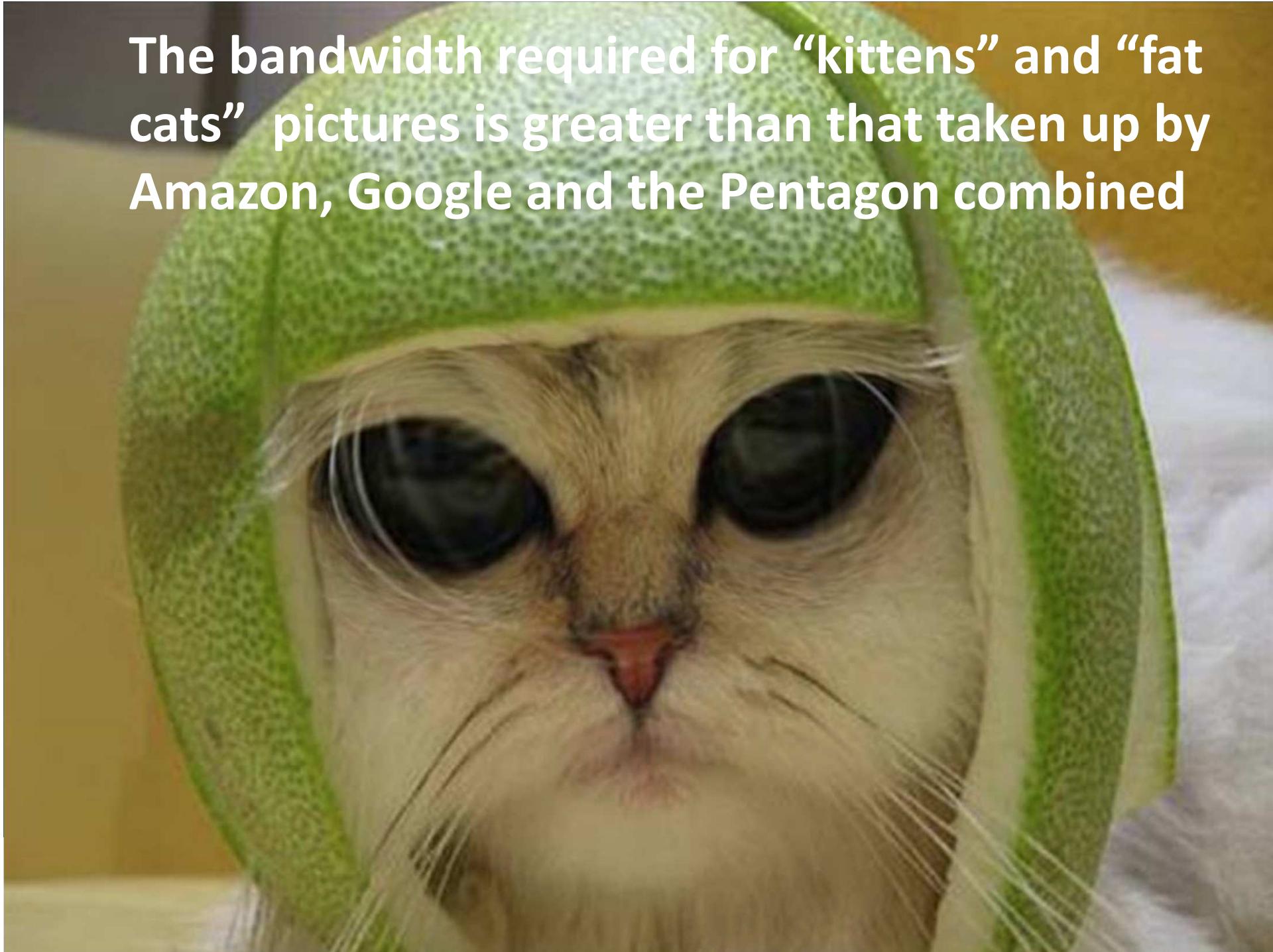
That's more than four times 2010's volume.

400 MILLION

Snapchat snaps per day



The bandwidth required for “kittens” and “fat cats” pictures is greater than that taken up by Amazon, Google and the Pentagon combined



NINETY-FIVE.

The percentage of companies using LinkedIn
to find and attract employees.



1 in 5

The number of couples that meet online



4.695 million English articles,
127,000+ contributors



But surely this is something we'll
outgrow as we get older...

Press Esc to exit full screen mode.

**WE DON'T
HAVE A CHOICE**

ON WHETHER WE DO
SOCIAL MEDIA

THE CHOICE
IS HOW WELL WE DO IT
-ERIK QUALMAN

<http://youtu.be/zxpa4dNVd3c>

@eo

The World Wide Web and its media
is changing everything...

How we work.

How we play.

How we learn.

How we share.

How we discover.

How we create.

How we complain.

How we celebrate.

How we mourn.

How we applaud.

How we influence.

How we collaborate.

How we investigate.

How we evaluate.

How we design.

How we build.

How we live.

Why are we here?



let's get started.

The Web Design Process

So you're thinking of making a website?



Where to start &
where to end...

- Assess
- Plan
- Develop
- Test
- Deploy
- Maintain

Who is the client?



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Who are the competitors?



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Investigate the market



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Look at existing websites



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Assess the scenario

- Investigate the client and their competitors
- Investigate the market
- Look at existing websites and decide where improvements can be made
- Decide on a time frame
- Decide on an estimated budget

Where are we now?

Assess

→ Plan

Develop

Test

Deploy

Maintain



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Brainstorming

Identify Goals

Set a Time Limit

Write or Sketch
Everything

Embrace the
Ridiculous

Avoid Group
Think

Start General,
End Specific



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Question

Which of the following statements is true?

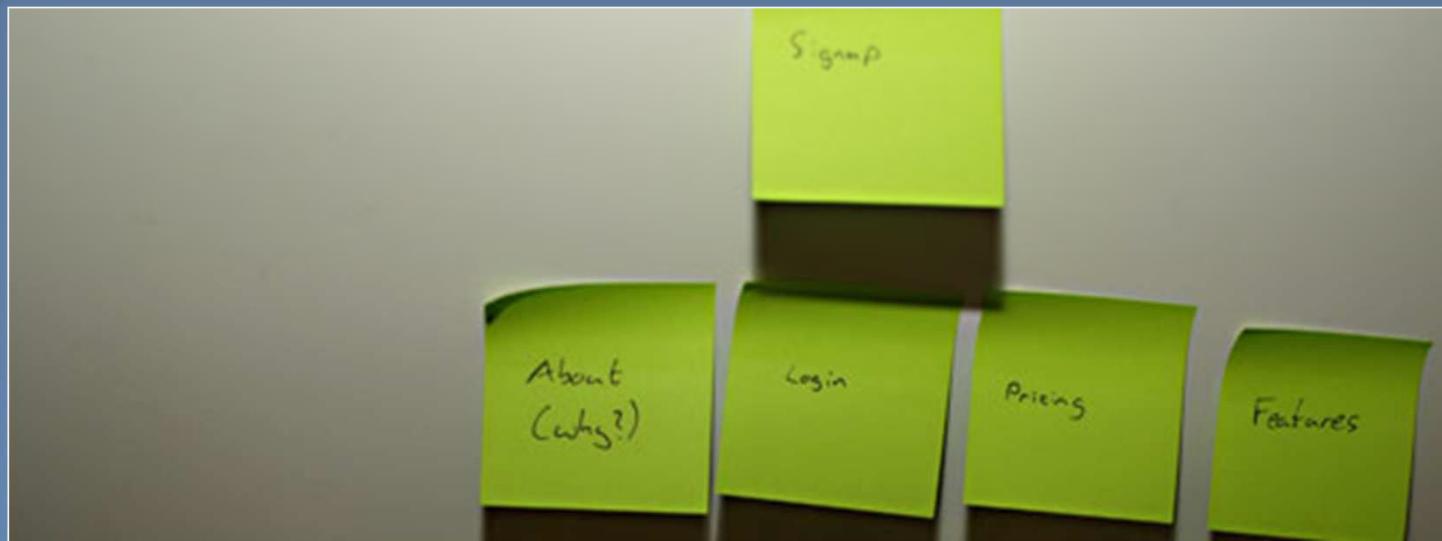
Within brainstorming:

- A) Ensuring everyone participates is the main objective.
- B) The process should be drawn out for as long as possible, to generate maximum ideas.
- C) Every idea should be expanded.
- D) All ideas are valid.

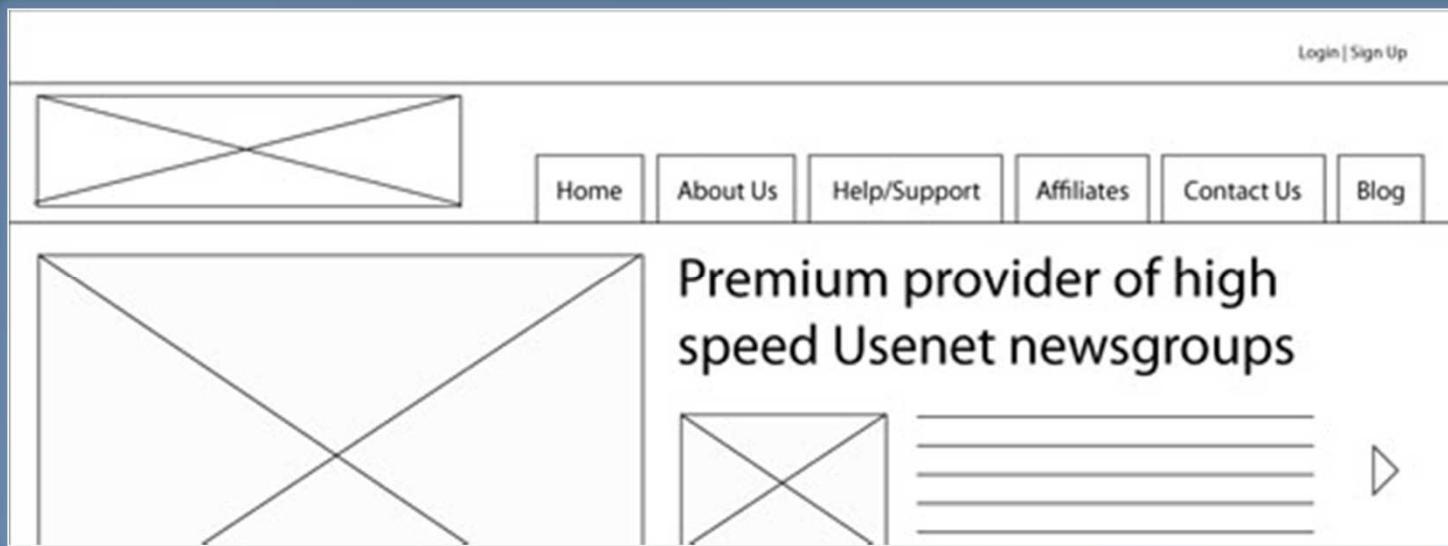
Define an Information Architecture

What is it?

- Defines the structure, model or map of a website.
- In terms of Web pages, it defines the organisation of pages as well as the relationships between them.



Sketches and Wireframes



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Summary

Web design process

- Assess
- Plan

Thursday – History of The Internet

No practical this week