

APS 406

Communicating on the web

Issues to consider, things to remember, problems to avoid

Today...

- What you need to know about how the web works
- Principles of communicating on the web
- Your web pages

... group sessions

- Software
- Techniques for page layout etc...
- Image preparation

The World Wide Web

What is it and where did it come from?

A quiz ...

- What is the internet ?
- What is the WWW ?
- What does HTTP stand for ?
- What is HTML ?
- What is a URL ?

History

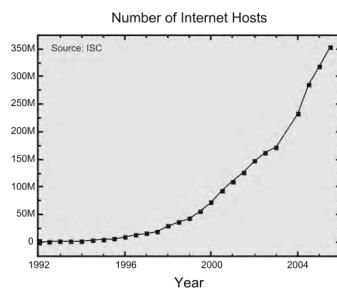
- Tim Berners-Lee & others ... CERN 1980s
- Internet + Hypertext = WWW
- First 'web site' at CERN in August 1991



<http://www.w3.org/History/19921103-hypertext/hypertext/WWW/TheProject.html>



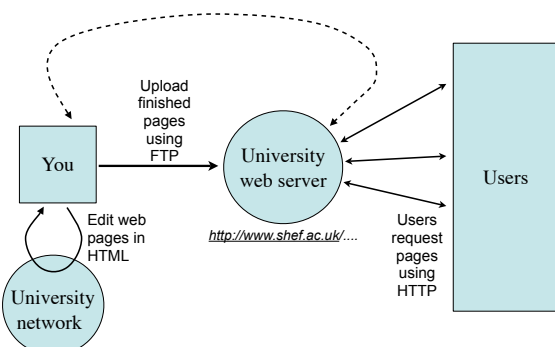
'Mosaic' - web browser (1993)



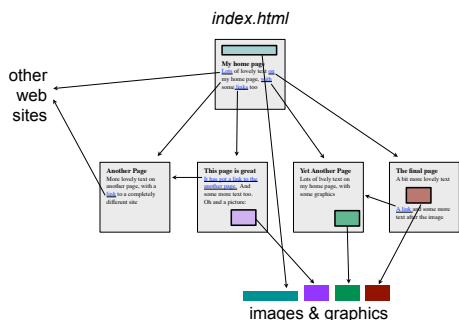
Science and the web

- Information exchange (e.g. genome sequence databases)
- Electronic publication (journals online)
- Abstracting databases (e.g. Web of Science)
- Collaborative working (electronic preprints, remote monitoring, web meeting)

How does it all work?



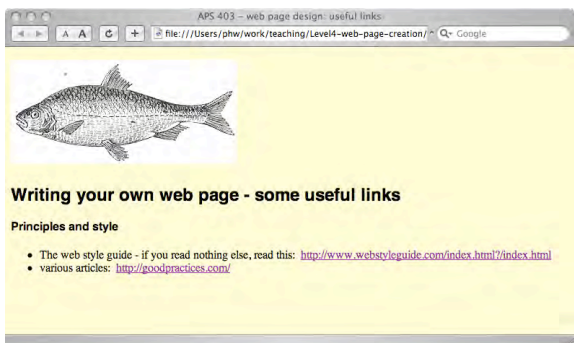
What is a web site?



What is a web page?

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html>
<head>
<meta content="text/html; charset=ISO-8859-1" http-equiv="content-type">
<title>APS 403 - web page design: useful links </title>
</head>
<body style="color: rgb(0, 0, 0); background-color: rgb(255, 255, 204);" link="#000099" alink="#000099" vlink="#990099">

<h2 style="font-family: Helvetica,Arial,sans-serif;">Writing your own web page - some useful links</h2>
<span style="font-family: Helvetica,Arial,sans-serif;"></span>
<h4><span style="font-family: Helvetica,Arial,sans-serif;">Principles and style</span></h4>
<ul>
<li><b>The web style guide - if you read nothing else, read this:</b>
&nbsp;&nbsp;&nbsp;<a href="http://www.webstyleguide.com/index.html?index.html">http://www.webstyleguide.com/index.html?index.html</a></li>
<li><b>various articles:</b> &nbsp;&nbsp;&nbsp;<a href="http://goodpractices.com/">http://goodpractices.com</a></li>
</ul>
</body>
</html>
```

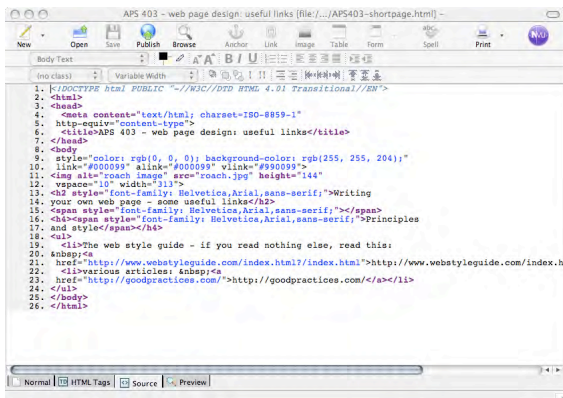
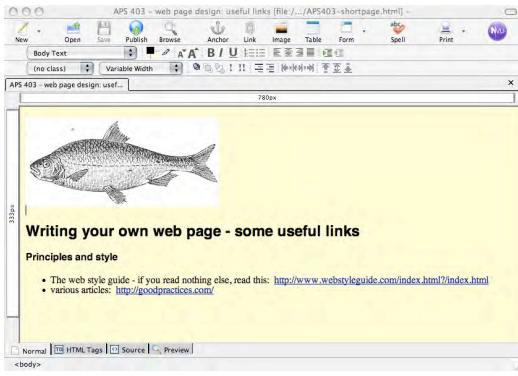


Ways of making web pages

- write plain text HTML (e.g., in Notepad)
- convert to HTML (e.g., from Word, Powerpoint)
- use a dedicated HTML editor
 - HTML code
 - WYSIWYG - code generated automatically
 - both
- use a Content Management System
 - e.g. <http://www.shef.ac.uk/aps/index.html>

NVU - code and WYSIWYG editor

<http://www.nvu.com>



Design principles for the web

Information

- content is (almost) everything
- how should the information be structured?
- organize the information first (e.g. in Word)
- edit and check spelling
- edit and check spelling again
- get some one else to read it and check the spellign

Writing for the web

- screen reading vs reading print
- break text visually (paragraphs, subheadings)
- don't make pages too long
- don't make lines too long (10-15 words is good)

Reading the web ...

Text passages Product description Search results



Eye scanning study: see - http://www.useit.com/alertbox/reading_pattern.html

Designing the page: overall

- keep it simple
- can the design be consistently applied across all pages?
- does the layout naturally draw the attention to the right information?
- don't underestimate the power of whitespace
- boxes, lines and dividers can be clutter too

The screenshot shows the homepage of dabs.com. The layout is highly structured and cluttered. At the top, there is a navigation bar with numerous links and a search bar. Below this is a large promotional banner for 'THIS WEEKEND ONLY' with 'FREE DELIVERY!' and a price of '£149.00'. The main content area is divided into several sections: a 'Browse Category' sidebar on the left, a 'featured product' section in the center, and a 'HOT DEALS' section at the bottom. The 'HOT DEALS' section features several product listings with images, prices, and 'ADD TO BASKET' buttons. On the right side, there are several smaller promotional boxes, including one for 'ORDER NOW RECEIVE ON DAY OF LAUNCH' and another for 'Customer promise'. The overall design is dense with text and images, and uses a lot of red and yellow colors for emphasis.

Page structure and navigation

- how do the pages relate to each other?
- navigation links: are they consistent?
- do you need a menu on each page?
- avoid "back" buttons/links unless enforcing a sequence is important
- is there a way back to the home page from everywhere?

Layout

- page width: 550 px for printing, or 750 max, or allow variable flow of text
- complex layouts require tables (easier), or cascading style sheets (more powerful)
- this is not desktop publishing - you are creating instructions, not the finished article

Colours

It is fairly obvious that a good contrast between text and background is essential - but you'd be surprised how often it doesn't happen

Avoid large areas of dark background and light text - it gets very wearing!

Soft/pale background colours & darker text work best

Colours

- What are 'web-safe' colours?
- Colours look different on a Mac and a PC

Do my colours contrast enough?

<http://juicystudio.com/services/colourcontrast.php>

How will it work in grey?

<http://graybit.com/main.php>

Fonts

- will the fonts be available on all machines?
- font families and “graceful degradation”
 Principles and style
- choose appropriate fonts for the subject

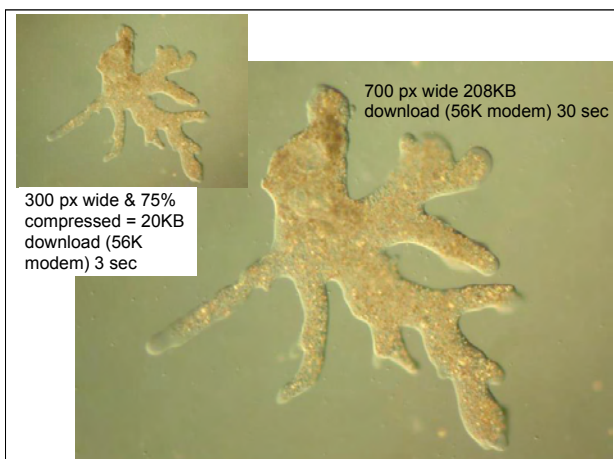
Cadmium toxicity in marine fish

Environmental determinants of spore germination in powdery mildew



Images

- images are powerful: use them thoughtfully
- images are someone's: do you have permission to use them?
- adjust images to the size you want before adding them to the page (may need sharpening)
- specify the image size in image tag
- use recognized formats (JPEG, GIF, PNG)
- size and compress images to reduce file size
- aim for no more than about 75KB graphics on a page



Hyperlinks

- make links obvious (colour, underline ...)
- **avoid** excessive **hyperlinks** in **the text** itself
- if links are only graphics how will a screen-reader navigate?
- try to avoid 'Click here' links

Accessibility

- structure, structure, structure
- do you have text links for navigation too?
- **always** include "alt" text with images

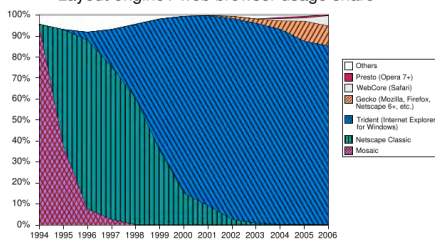
```

```
- If you need accessibility guidelines ...
<http://www.w3.org/TR/WAI-WEBCONTENT/>

Testing

- test early, test often
- resize windows
- will it work on a smaller monitor?
- try **every** link
- it works in IE, but does it work in Navigator? Opera? Safari? Firefox?
- test download speed (or use file size and online calculators)

Layout engine / web browser usage share



Internet Explorer	79.44%
Netscape	0.77%
Mozilla	0.19%
Mozilla Firefox	13.91%
Opera	0.76%
Safari	4.77%

An estimate of browser use (2006)

Validate

- does your page adhere to the standards?
- why should you care?
- use it as a learning aid

<http://validator.w3.org/>

Avoid ...

- frames
- browser specific tags/extensions
- Java applets
- Javascript
- animated graphics, blinking text, scrolling banners

Your web pages

File organization

- for a simple site keep all files in one directory (folder)
- when creating links to other files (e.g images) make the links relative - i.e. *image.jpg* not *c:/myfiles/web/project/image.jpg*
- the starting page should be **index.html** - this is not optional
- other filenames should be all lower case letters, no spaces - the web server is not running Windows
- e.g. **project.html**, **daphnia-image1.jpg**

Your web pages - 1

- About your project (& literature review if appropriate)
- Aimed at an informed, but non-expert, audience (think undergraduate applicants, & potential employers)
- 3-6 pages (not more than 10!)
- should include sufficient introduction, approach / methods, possibly results (even if partial).
- Can include a short biographical section, but keep it to relevant information about you, it's not a platform to proclaim your views on life, the universe, the government or the great hereafter ...

Your web pages 2

- Should be clearly and correctly written and appropriately styled for the web
- should be fully functional for 'normal' users
- images should be correctly used (sourced / acknowledged) and processed (file size etc..)
- You cannot upload the finished pages - they should be given to GW to check and upload before the handing in date

<http://www.shef.ac.uk/aps/currentug/webpages.html>

Useful links and resources

- If you read anything, read this (or at least bits of it) ...
<http://www.webstyleguide.com/>
- Cross browser compatibility you know it's right ...
<http://www.anybrowser.org/campaign/abdesign.html>
- There are many tutorials on writing web pages and HTML, but one good concise overview is ...
<http://kerlins.net/bobbi/technology/webdesign/html.html>
- Basic intro to web site writing with NVU (with links to other useful resources) ...
<http://www.nvu.com/websitehelp.php>
- And of course, don't do anything like this ...
<http://www.angelfire.com/super/badwebs/main.htm>