

World Wide Web

WWW

Which is harder to say than
World Wide Web

Questions

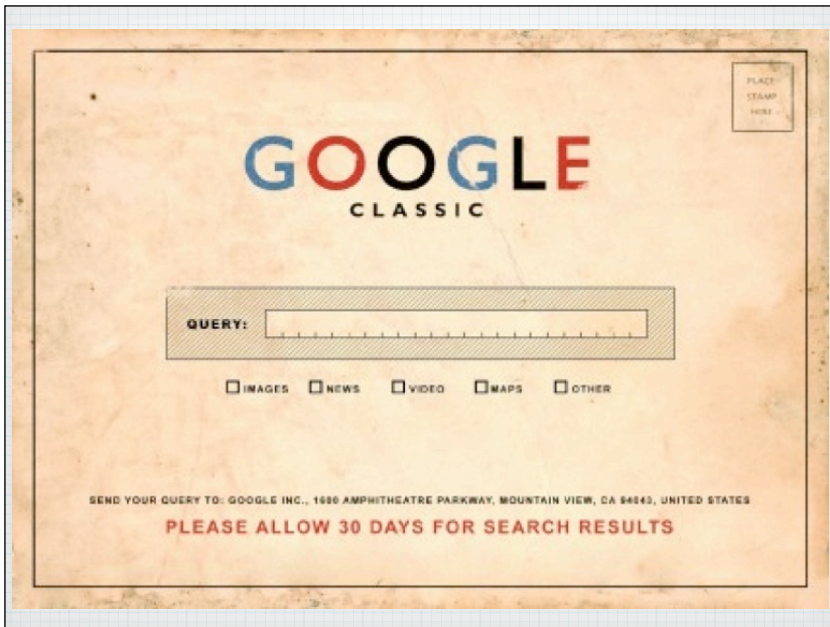
Who has used the World Wide Web?

When was the first web site published?

1971	1981	1991	2001
------	------	------	------

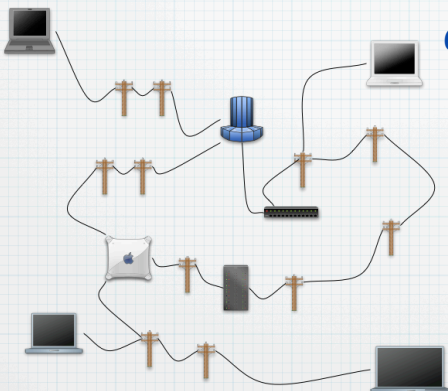
Questions

What did we do to find things before then?



Many people perceive the WWW as the Internet

...actually a set of connected computers

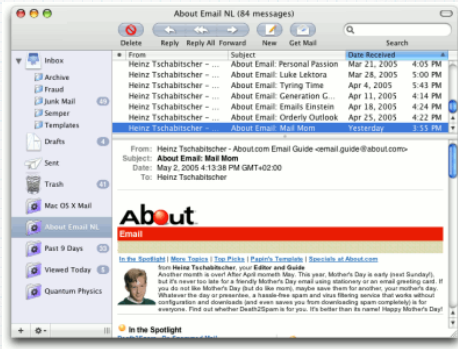


... running a variety of applications

Browser



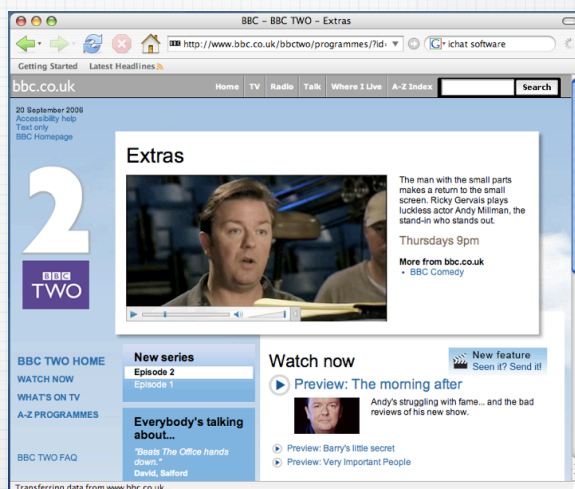
Mail



Chat / instant messaging



Video / audio streaming



So what is the World Wide Web?

A combination of ...

User generated content	Web pages
Software	Browsers / Web Servers
Hardware	Computers, network devices, cables

So what is the World Wide Web?

Today - focus on Web Pages

User generated content	Web pages
Software	Browsers / Web Servers
Hardware	Computers, network devices, cables

So what is the World Wide Web? Web pages



So what is the World Wide Web? Web pages

Text



So what is the World Wide Web? Web pages

Pictures



So what is the World Wide Web? Web pages

Links
to other
pages -
hyperlinks



But what else? ...



But what else? ... Forms



But what else? ... Forms



text
boxes
and
buttons

But what else? ... Forms



Radio
buttons

Tools required to create web pages

- An editor that can produce text files
 - Notepad, WinEdt, HTMLkit, Notepad++
 - NOT Word !
- A browser to view (and check) the pages
 - Internet Explorer (common but poor quality)
 - Safari, Firefox, Chrome, Opera

Our recommendations:

- An editor that can produce text files
 - Notepad, WinEdt, HTMLkit, **Notepad++**
 - NOT Word !
- A browser to view (and check) the pages
 - Internet Explorer (common but poor quality)
 - **Safari, Firefox, Opera, Chrome**

Example

- Creating and saving a simple file
- Loading it into a browser locally

Plain text files

The most common file type, as all web pages are plain text files

- Only contains the characters entered at the keyboard
- Can be produced in a variety of editors

So how can we add formatting?

- Add Markup
- HTML - Hypertext Markup Language

Example - making some of the text italic
using **emphasis** ``

So what is HTML?

- A way to add display structure and design to a document using markup
- Done by adding tags to a plain text document

```
<tag>  
Area that tag is applied to  
</tag>
```

- In markup languages tags are called **elements**

Many people confuse creating web pages with programming

- Programmers create and write software



Many people confuse creating web pages with programming

- Creating web content is more like traditional word processing – use the term **‘authoring’**

HTML document basic structure

```
<html>
```

Indicates the start of
the HTML document

```
</html>
```

Indicates the end of the
HTML document

HTML document basic structure

```
<html>
```

```
<head>
```

```
</head>
```



Indicates the head of
the HTML document

```
</html>
```

HTML document basic structure

```
<html>
```

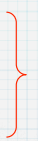
```
<head>
```

```
</head>
```

```
<body>
```

```
</body>
```

```
</html>
```



Indicates the body of
the HTML document

"head" of the document

```
<html>
<head>
</head>
<body>

</body>
</html>
```

- Can be blank or missing
- Normally contains information **about** the document - called 'meta' information
- Normally nothing here will be displayed aside from the **<title>** element - used to control the text at the top of the browser

Comments

- It's good practice to add comments to your file
- Not displayed in the browser window
- Use this notation

```
<!--
Any lines between these points won't be
displayed
-->
```

Example:

```
<html>
<head>

<!--
Created by: Barry Avery
Date: 15th Sept 2013
-->

<title>Welcome to my Web page</title>
</head>
<body>

</body>
</html>
```

"body" of the document

```
<html>  
<head>
```

```
</head>  
<body>
```

- Contains all the text, elements and links that will be displayed

```
</body>  
</html>
```

- Some basic elements <h1>, <h2>, ...<h6>, <p>, ,

Heading elements <h1> .. <h6>

- Heading styles rendered from large to small in order of importance

```
<h1>Important heading</h1>  
<h2>Slightly less important heading</h2>  
<h3>Another subheading</h3>
```

- But they only go up to H6

Paragraph elements <p>, </p>

- Every distinct paragraph should be a paragraph element
- The browser inserts default spacing between the paragraphs (and the headings where appropriate)

```
<h1>Important heading</h1>  
<p>Some information in a paragraph.</p>  
<p>Another paragraph, but note where the  
end of paragraph closing tag is.</p>
```


Some other elements

- Use elements to make text important
- Use elements to make text standout

You may wish to select button one but do not select button two

You may wish to select button *one* but do **not** select button two

Notes ...

- Most elements are pairs of start and end tags

```
<h1>Important heading</h1>
<p>Some information in a paragraph.</p>
<p>Another paragraph.</p>
```

Notes ...

- But some don't! Called empty elements

```

```

The **image** element - will be discussed next week

Notes ...

- The text inside the tag indicates the name and purpose of the tag, called the **label**

```
<h1>Important heading</h1>
```



The **h1** heading label

Notes ...

- **HTML** was originally designed to display plain text in a variable width browser...
- ...so creating paragraphs and inserting lines not as straight forward as pressing 'return' in Word

Tables

A major way of structuring text

	Column	Column	Column
Row	The Times	1.00	396,500
Row	The Guardian	1.40	193,800
Row	Daily Mirror	0.50	1,032,150

Tables

May have border round each cell, ... or not

	Column	Column	Column
Row	The Times	1.00	396,500
Row	The Guardian	1.40	193,800
Row	Daily Mirror	0.50	1,032,150

Tables

So how do you mark up a table?

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

Tables

Wrap the whole table in a `<table>` element

`<table>`

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

`</table>`

Tables

Wrap each whole row in a table row element `<tr>`

The Times	1.00	396,500
The Guardian	140	193800
Daily Mirror	0.50	1,032,150

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

Tables

Wrap each data item in a table data element `<td>`

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

Tables

Wrap each data item in a table data element `<td>`

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

Tables

Example

Table example

An example table showing UK newspapers, cost and their reported circulation

The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

Tables

To add headings to each column, create a new row ...

```
<table>
```

```
<tr> <td> The Times </td> <td> 1.00 </td> <td> 396,500 </td> </tr>
```

```
<tr> <td> The Guardian </td> <td> 1.40 </td> <td> 193,800 </td> </tr>
```

```
<tr> <td> Daily Mirror </td> <td> 0.50 </td> <td> 1,032,150 </td> </tr>
```

```
</table>
```

Tables

To add headings to each column, create a new row ...

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<table>
```

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<tr> <td> The Times </td> <td> 1.00 </td> <td> 396,500 </td> </tr>
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```
<tr> <td> Daily Mirror </td> <td> 0.50 </td> <td> 1,032,150 </td> </tr>
```

```
</table>
```

Tables

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<tr> <td> Daily Mirror</td> <td> 0.50 </td> <td> 1,032,150 </td> </tr>
</table>
```

Tables

To add headings to each column, create a new row ...

```
<table>
<tr>
<tr> <td> The Times </td> <td> 1.00 </td> <td> 396,500 </td> </tr>
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<tr> <td> Daily Mirror</td> <td> 0.50 </td> <td> 1,032,150 </td> </tr>
</table>
```

Tables

...use table heading element <th> round each heading

```
<table>
<tr> <th> Name </th> <th> Cost </th> <th> Circ. </th> </tr>
<tr> <td> The Times </td> <td> 1.00 </td> <td> 396,500 </td> </tr>
<tr> <td> The Guardian</td> <td> 1.40 </td> <td> 193,800 </td> </tr>
<tr> <td> Daily Mirror</td> <td> 0.50 </td> <td> 1,032,150 </td> </tr>
</table>
```

Tables

Example

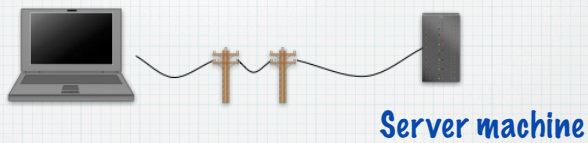
Table example

An example table showing UK newspapers, cost and their reported circulation

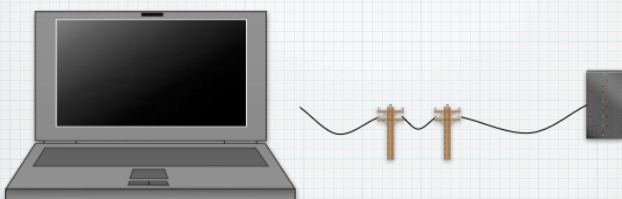
Name	Cost	Circ.
The Times	1.00	396,500
The Guardian	1.40	193,800
Daily Mirror	0.50	1,032,150

World Wide Web - how it works

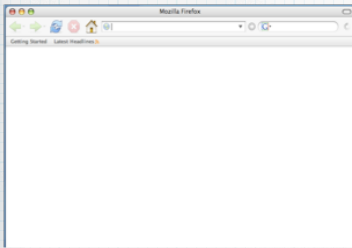
User on a machine somewhere



Being more specific...



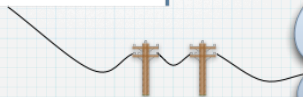
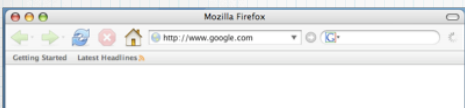
Web Browser software



1010101001010100100101
0101010101010101010101
0101010101010101010101
0101010101010101010101
0101010101010101010101
0001001....

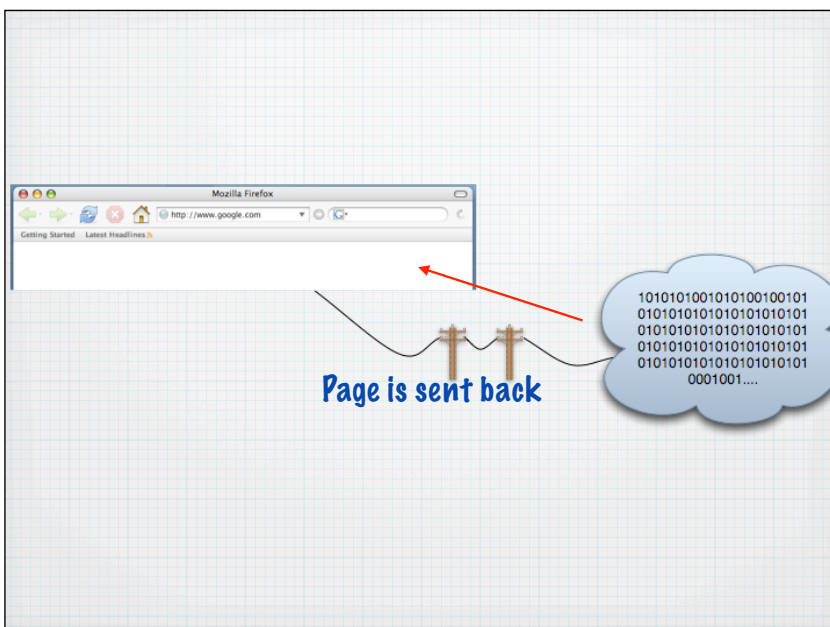
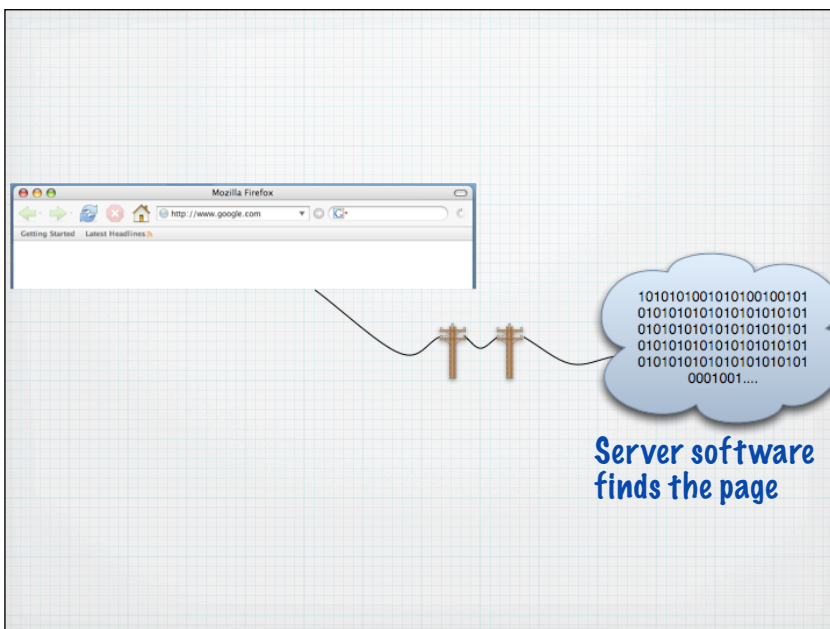
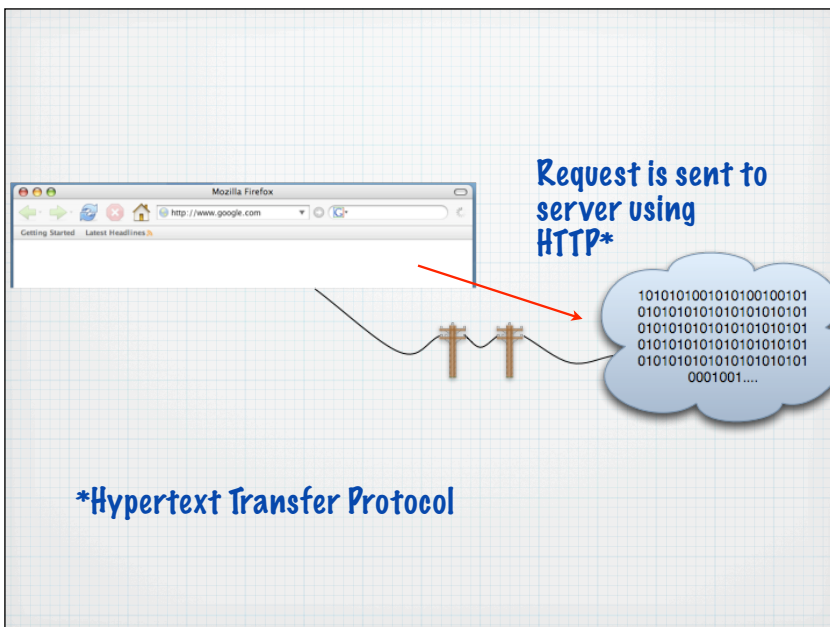
Web server
software

User types in a
URL*



1010101001010100100101
0101010101010101010101
0101010101010101010101
0101010101010101010101
0101010101010101010101
0001001....

*Uniform Resource
Locator



Browser displays
the page

