Some more detail...

Not all browsers are the same

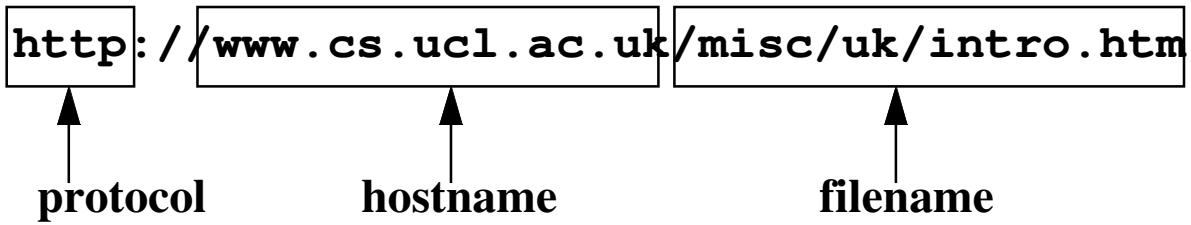
- Some are text only, for use on dial up lines or dumb terminals
- Even graphical browsers let you delay image loading
- This is useful on slow links or dial up internet access
- Hypertext (HTML) should be designed so that it's intelligible without pictures

Uniform Resource Locators (URL's)

- These are how Mosaic finds the document you ask for.
- An example:

```
http://www.cs.ucl.ac.uk/misc/uk/intro.html
```

- 3 parts, protocol, host, and filename



- if you know the URL, you can go straight to a document (see "open URL" on Mosaic)

I’m sure it was here somewhere...

- Finding something in the Web once is one thing
- Finding it again is quite another!

- Browsers provide a “hotlist” or “bookmarks” so you can easily store a list of places you think are interesting, and go back there quickly

A picture is worth 1000 words...

(and 100000 bytes)

- **Pictures are great - they explain things that it's impossible to explain in words...**

....but they're large to transfer across the network (can take a long time unless the link is fast)

- **It's usual to incorporate a small version of a picture, and then if you're interested, you click to fetch the full size version**

External Viewers

- There are many formats for picture files
- GIF is the most common in the Web
- JPEG is probably the best quality for the size
- Not many WWW clients support JPEG for inline images
- It's usual for the client to give large pictures to an external viewer to display
- Which viewer depends on your system (xv for UNIX, JPEGview for Macs, LVIEW for Windows)

Active Maps

- These are inline pictures that have hot areas defined.
- When you click on an active map, what happens next depends on where on the picture you click
- Usually you'll get information about the bit of the picture you clicked on.
- See

`http://www.cs.ucl.ac.uk/misc/uk/intro.html`

MPEG and Quicktime Movies

- WWW allows MPEG and Quicktime movie files to be sent and played
- This is not actually very useful!
- You have to download the whole movie before playing it, and it plays back as fast (or slow) as your workstation can manage
- If you though pictures were large...

Audio

- WWW clients often also support audio
- You have to download the whole audio file before you play it too.
- Audio files are smaller than video files, but still not exactly small!
- As the internet improves, realtime audio and video are becoming possible... (but are not ready for the big time yet)

WWW is much more than information retrieval...

- A WWW client can make a request to a server which causes a program to be run
- so what?

- Such CGI programs can do anything their designer though of, and then return the results to the client
- So, accessing the same place may not give the same response twice in a row
- Cambridge University Coffee Machine

Not just a consumer of information...

- Later WWW browsers allow you to contribute information too...
- An information provider can set up a fill-out form, which the user then fills in, and can then sends information back to the provider.
- See

`http://www.cs.ucl.ac.uk/misc/uk/london/pubs/`

Clients and Servers

- There are many clients and many servers for many different types of hardware.
- No-one can “sell you the web” - there’s a lot of very good free software.
- If you want to browse the Web, you only need a WWW client, such as Mosaic
- If you want to provide information, you need to run a WWW server on a machine permanently on the net
- There are providers who can do this as a service (you provide the information, they run the server)

Providing Information

- Hypertext on the WWW is in HTML (Hypertext Markup Language)
- An example:

```
<H1>Providing Information</H1>
<UL>
<LI>Hypertext on the WWW is in HTML
(Hypertext Markup Language)
<LI>An example:
</UL>
```

- but there are converters for many existing word processing packages

Servers

- but that's another story...