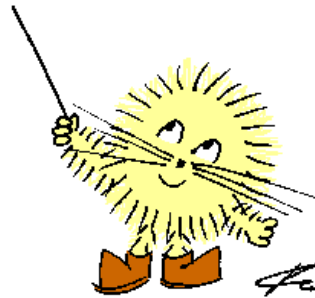


## Introduction to making Webpages

VicGUM Internet Workshop  
September 2011

Ken McInnes



## Introduction to making Webpages

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***Ever wanted to create a Webpage?***

***Ever wanted to add some web hyperlinks  
to online resources?***

***This talk and demonstration will explain:***

- the easy and simple basics of web page markup using Hypertext Markup (HTML) and Style (CSS),
- where you can publish your website for free, and
- how you can easily transfer and maintain your webpage files using file transfer software (FTP)

***Anyone can make a Web page ... it really is easy!***

## The Web – What is it?

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### ■ Physically:

the Web is an **Internet** service that uses **Browser** and **Server** software to provide access to a diverse collection of **Hypertext**-based **Documents** through which users can **Browse**.

### ■ Conceptually:

the Web is many different things to everyone ...



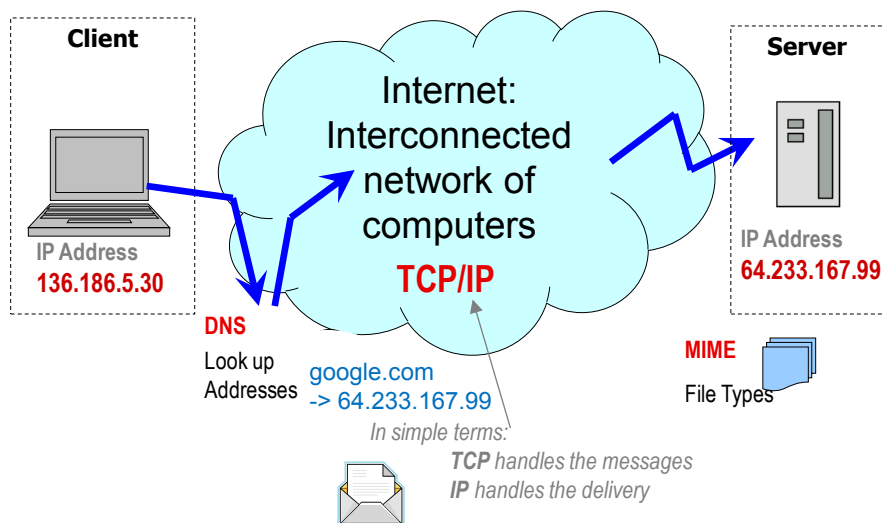
## The Web – What is it?

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**Conceptually**, the World Wide Web is:

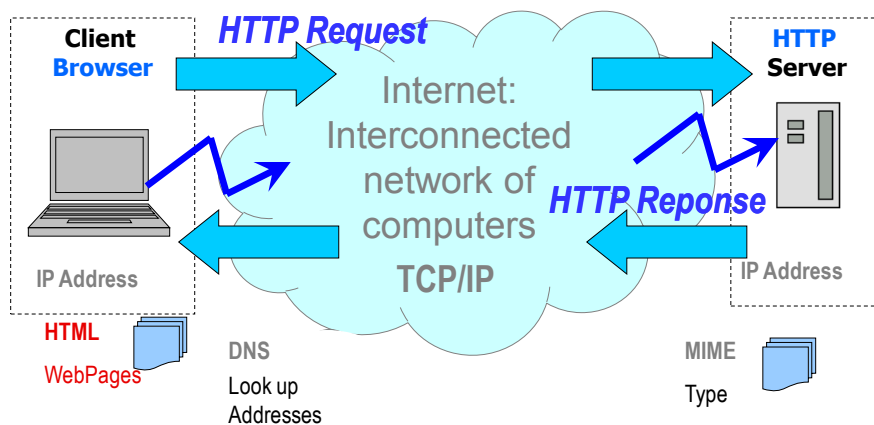
- *“the universe of network-accessible information, the embodiment of human knowledge”* (W3C, 1995)
- *“a child of the Internet”* (Stein, 1997)
- *“[the] Web’s major goal was to be a shared information space through which people and machines could communicate.”* (Berners-Lee, 1996)
- *“a global, interactive, graphical, distributed, hypertext information system that runs over the Internet”* (LeMay, 1996)

## Internet – What is it?



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## The Web – What is it?



## The Web – How does it work?

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### ■ Web Browsers

- Manage and make HTTP requests
- Receive HTTP responses
- Interpret and render/display completed Web Documents

### ■ Web Servers (HTTP Servers)

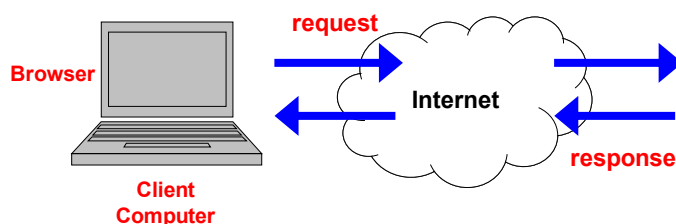
- Receive HTTP requests
- Retrieve Web Documents
- Manage and make HTTP responses

## Web Browsers

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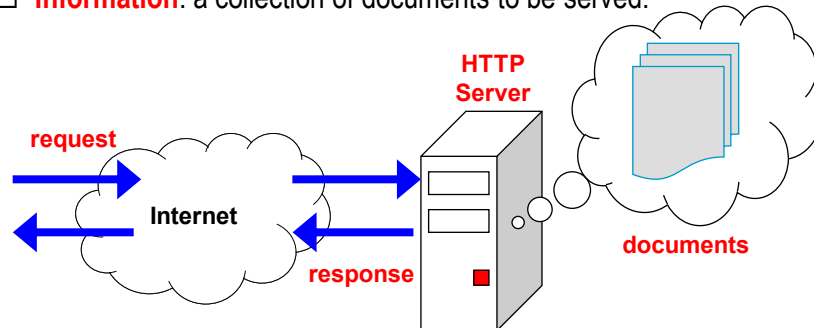
### ■ Web browser:

- Software application** that **lays out / renders mark-up**: displaying text, images, and other information typically located in a Web page.
- Users **interact** with the Web browser by requesting web pages or by clicking on [hyperlinks](#) within the Web page.
- Web pages can be located on the local computer, on a local area network, or on a Web Server on the Internet.
- Web browsers format and send HTTP requests, and receive, analyse and layout / render HTTP responses.



## Web Server Features

- A Web server is made up of several components:
  - A **computer** with an **Internet connection** and **operating system**.
  - **Web server software** to receive and respond to HTTP requests.
  - **Information**: a collection of documents to be served.



## The Web – How does it work?

- **Uniform Resource Locator (URL)**
  - Used to uniquely identify the **location** of a document on the internet and the **protocol** used to transfer it.
- **Hypertext Transfer Protocol (HTTP)**
  - The key “protocol” that manages the **request/response** exchange between **browser** and **servers**
  - **HTTP – has Stateless Connections**
    - The connection between the client and server is active only for single requests.
    - Less overhead for multiple connections
    - No memory of past connections
    - *When we need stateful connections, we need to also use other client and/or server side technologies ... more later*

## The Web – How does it work?

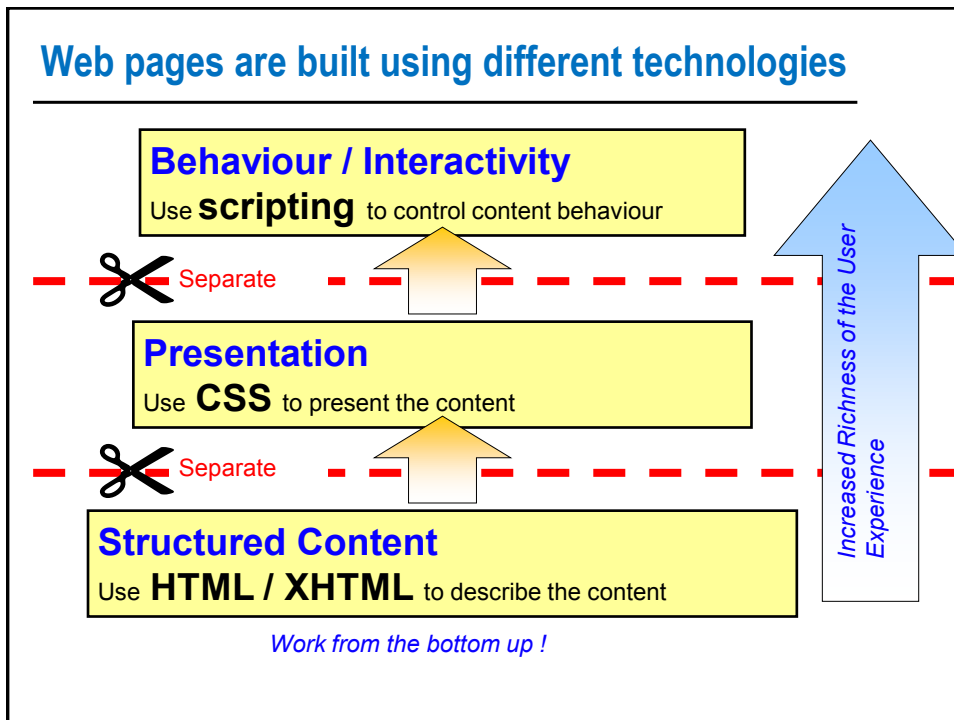
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- **Web Documents** – are **Hypertext** documents.
- **Hypertext** is text that can act as a **link** or **hyperlink** to another document location.
- With hypertext you can skip from one topic to another in any order that suits **you** and **your objectives**
- Links may point to another section of the same document, or point to another entirely different document (on the same or another web site).
- Hyperlinks use **Uniform Resource Locator** (URL) format to describe the locations they point to.

## Key things to know about Web Pages

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- *How to create web pages,*
- *How to create links between our web pages,*
- *How to create links between our web pages and other on-line resources,*
- *Ensure that our web pages can be found by 'Search Engines'.*



## HTML structures the content

### + CSS adds presentation / style

HTML - HyperText Mark-up Language:

- HTML uses **tags** to mark up text.
- These **tags are interpreted** by the browser software that **renders it** on the screen **in various ways**, displaying **hyperlinks** and other areas of interactivity.
- 'View / Page Source' in any webpage to see what is going on underneath

**CSS** or **style** adds '**presentation**' to webpages.

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View / Page Source

Victorian GUM Inc. - Home Page - Mozilla Firefox

Source of: http://www.vicgum.asn.au/ - Mozilla Firefox

```

1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1
2
3 <html>
4 <head>
5   <meta http-equiv="Content-Type" content="text/html, charset=iso-8859-1" />
6   <meta name="Description" content="VicGUM is a not-for-profit association of family history
7   <meta name="author" content="vicgum.asn.au" />
8   <meta name="copyright" content="Copyright (c) 1997-2004 by Victorian GUM Inc." />
9   <!-- Validated okay: 1 July 2007 -->
10
11   <title>Victorian GUM Inc. - Home Page</title>
12
13   <!--<LINK REL="SHORTCUT ICON" HREF="http://www.vicgum.asn.au/GUMfavicon4.ico" -->
14     <link rel="icon" href="favicon.ico" type="image/ico" />
15   <!--<link rel="shortcut icon" href="GUMfavicon3.ico" type="image/ico" /> -->
16
17   <link rel="StyleSheet" href="vicgum.css" type="text/css" />
18   <style type="text/css">
19
20   <!--
21   .style1 {font-size: 18px}
22   -->
23 </style>
24 </head>
25
26 <body style="margin-top:0px; background:#ffffff; color:#000000">
27 <!-- Page Header -->
28
29 <!--
30   <td class="headertd" rowspan="2">
32 <table cellpadding="0" cellspacing="0">

```

HTML Validator

Type	Line	Column	HTML errors and warnings
Result			11 errors / 0 warnings
Error	285	11	document type does not allow ...
Error	304	11	document type does not allow ...
Error	306	10	document type does not allow ...
Error	310	11	document type does not allow ...

July 2009

## What is HTML

HTML = “HyperText Markup Language”!

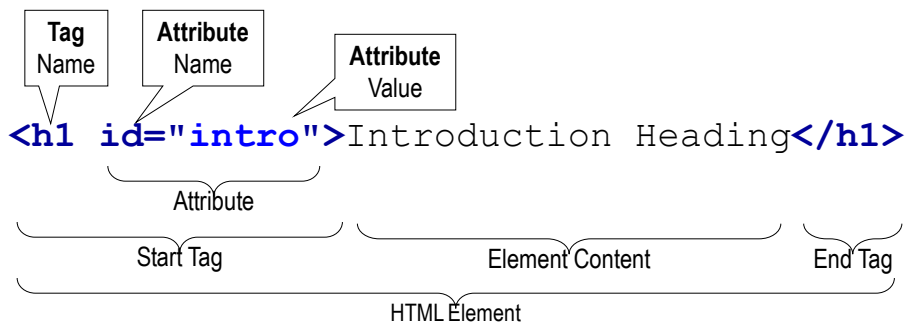
HTML = “HyperText” using a “Markup Language”

- **Simple text** that uses “**markup codes**” for information
- Web browsers understand the **meaning** of the markup codes and then display the text “**marked**” as requested
- In HTML, the special **markup codes** are called **elements**.

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## HTML Elements

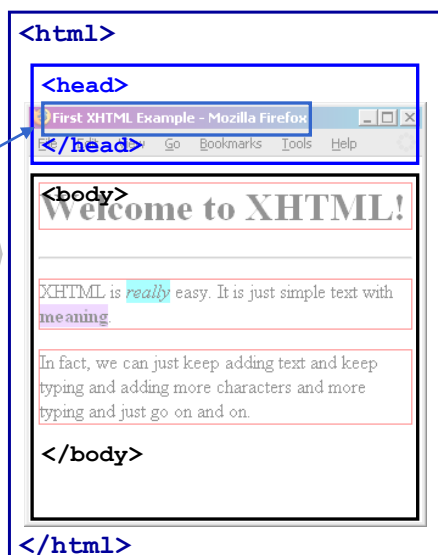
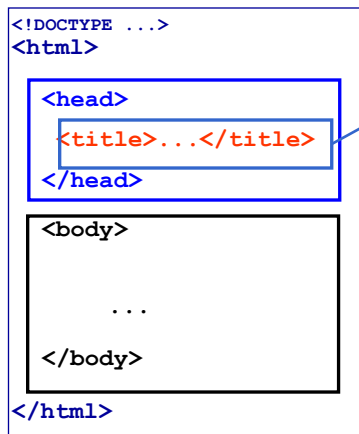
An **element structure** includes: **start tag** or **tag name**, an attribute name (**id**) with an **attribute value** ("intro"), the **element content** (the text affected by the tag meaning), and finally the **end tag** of the element.



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## HTML: Document Structure

Simple structure of HTML documents



## HTML

### A Simple Example:

```

<html>
<head>
  <title>This is the Title that goes in the Window Title Bar </title>
</head>
<body>
  <h1>This is a Main Heading</h1>
  <hr />
  <h2>This is a secondary heading</h2>
  <p>This is a paragraph</p>
  <p>
    
    <strong>This</strong> is <em>another</em> paragraph with details that are displayed on the left
    of the image. </p>
  <p><a href="http://www.vicgum.asn.au">This is a hyperlink to VicGUM</a></p>
</body>
</html>

```

A text editor, like NotePad++ is a good tool for coding simple HTML and CSS files.

The screenshot shows a web browser window with the title "This is the Title that goes in the Window Title Bar". The page content includes:

- A main heading: **This is a Main Heading**
- A horizontal line: 

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- A secondary heading: **This is a secondary heading**
- A paragraph: This is a paragraph
- A paragraph: This is **another** paragraph with details that are displayed on the left of the image.
- A paragraph: [This is a hyperlink to VicGUM](http://www.vicgum.asn.au)
- An image: A portrait of a man with a beard, identified as Fred Bloggs c1888.

## HTML + Style

### Revised Example with CSS Style:

```

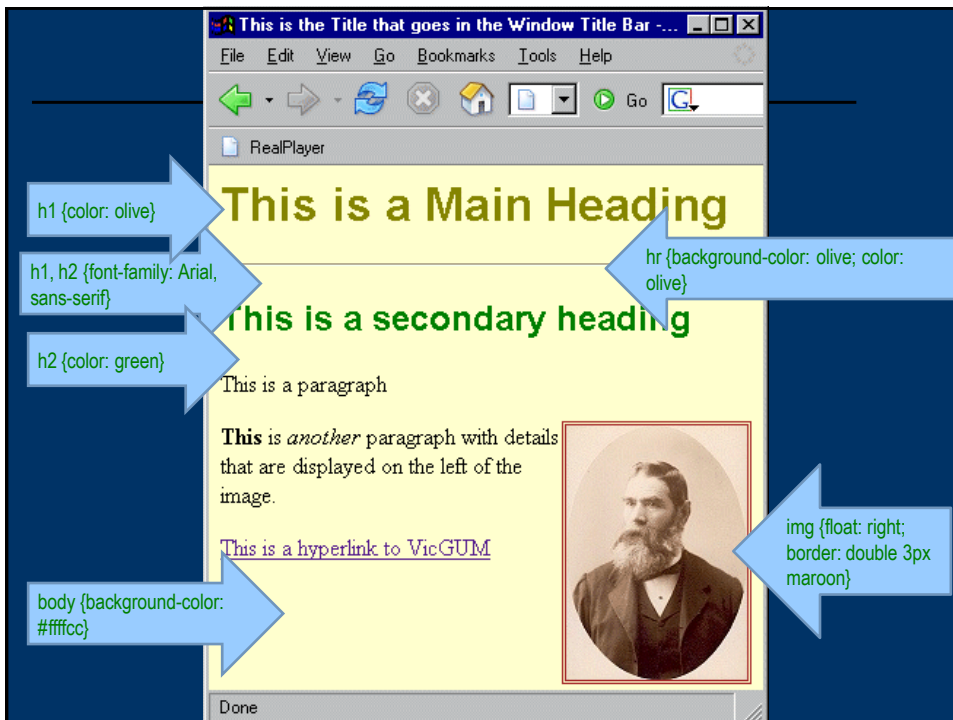
<html>
<head>
  <title>This is the Title that goes in the Window Title Bar </title>
  <link rel="stylesheet" type="text/css" href="mystyle.css" />
</head>
<body>
  <h1>This is a Main Heading</h1>
  <hr />
  <h2>This is a secondary heading</h2>
  <p>This is a paragraph</p>
  <p>
    
    <strong>This</strong> is <em>another</em> paragraph with details that are displayed on the
      left of the image. </p>
  <p><a href="http://www.vicgum.asn.au">This is a hyperlink to VicGUM</a></p>
</body>
</html>

```

```

body {background-color: #ffffcc}
h1, h2 {font-family: Arial,sans-serif}
h1 {color: olive}
h2 {color: green}
hr {background-color:olive; color:olive}
img {float: right;
border: double 3px maroon}

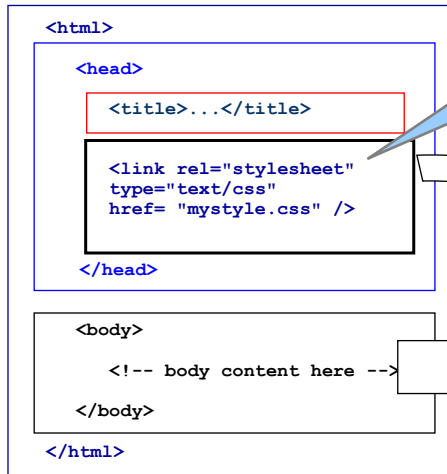
```



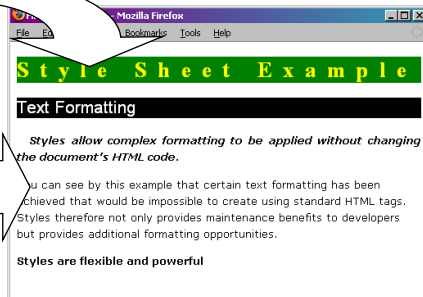
## CSS Example

Remember the simple structure of HTML documents!

```
<!DOCTYPE ... >
```



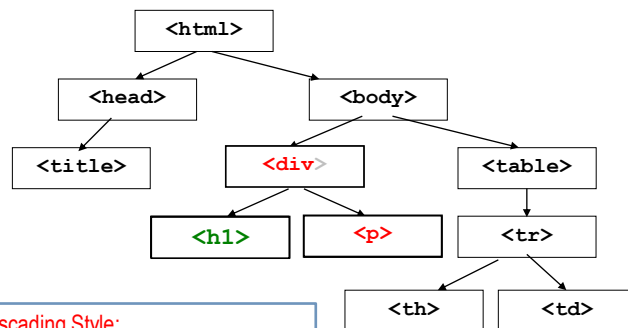
Same stylesheet can be linked and be re-used for many webpages



## HTML: Document Structure

- The "root" element of any html document is the **html** tag, which usually contains only two children **head** and **body**.  
The **head** then contains the **title**, and other 'head' elements.  
The **body** can contain many other elements, such as **div**, **table** ...etc!

```
<html>
<head>
  <title>...</title>
</head>
<body>
  <div>
    <h1>...</h1>
    <p>...</p>
  </div>
  <table>
    <tr>
      <th>...</th>
      <td>...</td>
    </tr>
  </table>
</body>
</html>
```



Cascading Style:

```
div {color: red}
```

```
h1 {color: green}
```

## HTML + Style

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*HTML Help and References:*

<http://www.w3.org/MarkUp/Guide/>

Dave Raggett's Intro to HTML

<http://www.w3schools.com>

excellent HTML and CSS tutorials and references

<http://www.w3.org>

W3 Consortium – HTML, CSS standards, code validators, tutorials

<http://reference.sitepoint.com/>

Excellent references

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## Using Images in Webpages

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*Know how to edit and include images in WebPages*

... pre-size all images to  
the final size on the webpage

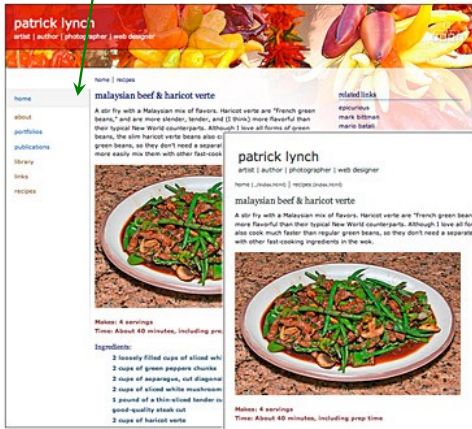
... use appropriate image formats  
for webpages

**.jpg**     *for photographs*

**.png**     *or .gif for graphics.*

## Page Layout: – Use CSS for Page Layout

Page rendered with a screen style sheet



Page rendered with a style sheet for a small viewport .



Page as printed with a print style sheet eg. Wikipedia



Mobile web displays often:  
 \* a small representation of the regular screen view, that need to be zoomed Ⓜ  
 or  
 \* specifically styled menu pages that link to stripped-down pages.

## Where to publish your webpages

*Know how to publish your WebPages*

... publish to a CD-ROM. (Just copy the files)  
 Could also create an autostart file

... upload to your web space provided by your Internet Service Provider (ISP)

... get some free space, then upload -  
 either on rootsweb.com or google sites, or ... ??

## How to upload your webpages

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*Get free file transfer protocol (FTP) software*

... eg. WinSCP    [winscp.net](http://winscp.net)  
      Secure Copy and Paste, and FTP

... use the FTP provided by  
      your Operating System / Software

... use the on-line web services software -  
      either on [rootsweb.com](http://rootsweb.com) or google sites