



# Web Design

## *Basic Concepts*



**ExplorNet CareerTech**

*from The Centers for Quality Teaching and Learning*



# Web Design

## Web Design:

Web design is the creation of a Web page using hypertext or hypermedia to be viewed on the World Wide Web.

Web sites may be relatively simple, or highly designed using professional tools such as the Adobe suite of software.





# History of Web Design

## Historical Developments of the Web:

- 1969** – Advanced Research Projects Agency (ARPA) corporation created a decentralized network called ARPANET, which allowed users to share computers and exchange data over great distances.
- 1973** – ARPANET goes international.
- 1989** – Tim Berners-Lee create the World Wide Web.
- 1991** – Tim Berners-Lee creates the first Web browsers.
- 1995** – CompuServe, American Online (AOL) and Prodigy provide Internet access to the general public. Early 20's – Broadband Internet access became widely available.





# Web Design

## Uses of Web Design:

- ✓ Commercial
  - Marketing Products and/or services
- ✓ Entertainment
  - Movies, music videos, plays, sports
- ✓ Informational/Educational
- ✓ News
- ✓ Public Service Announcements (PSAs)





# Web Design

## Concepts of Web Design Software:

- ✓ Importing:
  - Text
  - Graphics
  - Animation
  - Audio
  - Video
- ✓ Entering text
- ✓ Moving objects
- ✓ Scaling objects
- ✓ Saving in a Web-based format





# Web Design Language

## Web Languages Include:

- ✓ HTML
- ✓ XML
- ✓ XHTML
- ✓ JavaScript
- ✓ PHP
- ✓ CSS
- ✓ Flash





# Web Design Language

## HTML:

- ✓ Stands for Hyper Text Language.
- ✓ The first markup language that allowed users to create documents for the Web





# Web Design Language

## XML:

- ✓ Stands for Extensible Markup Language.
- ✓ A Markup language used to create new Internet languages and is used for communicating data between applications.

**<?xml?>**



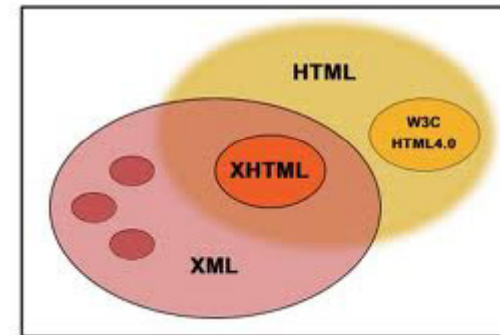




# Web Design Language

## XHTML:

- ✓ Stands for Extensible Hyper Text Markup Language.
- ✓ It is derived from HTML and XML code.
- ✓ XHTML is the current standard markup language for designing Web pages.
- ✓ The one main difference between HTML and XHTML is that HTML tags do not have to be closed but XHTML tags must always be closed.





# Web Design Language

## Javascript:

- ✓ A more simplistic programming language used for enhanced user interfaces and dynamic Web sites.
- ✓ Usually used as a client-side Web development scripting language.
- ✓ Client-side scripting allows for requests to be processed on the user's machine rather than on the Web site's server. This can be faster, use less bandwidth, and may be more secure.





# Web Design Language

## PHP:

- ✓ Stands for Hypertext Preprocessor (originally called Personal Home Page).
- ✓ For creating dynamic and interactive Web sites.
- ✓ Works by connecting an HTML page with a database.
- ✓ Server-side Web development scripting language.
- ✓ Server-side scripting allows for requests to be processed on the Web server to generate interactive Web sites.
- ✓ Open source software, meaning it is free to download and use.





# Web Design Language

## CSS:

- ✓ Stands for Cascading Style Sheets.
- ✓ CSS separates the presentation (look and formatting) of a page from its content.
- ✓ Allows a Web designer to define a common layout for a Web site that can be used by any number of the site's pages by simply referencing the CSS file.
- ✓ Easier to modify design elements like fonts, colors or even layouts for the entire Web site by modifying a single file instead of having to edit every single page.

```
h1 { color: white;
background: orange;
border: 1px solid black;
padding: 0 0 0 0;
font-weight: bold;
}
/* begin: seaside-theme */

body {
background-color:white;
color:black;
font-family:Arial,sans-serif;
margin: 0 4px 0 0;
border: 12px solid;
}
```

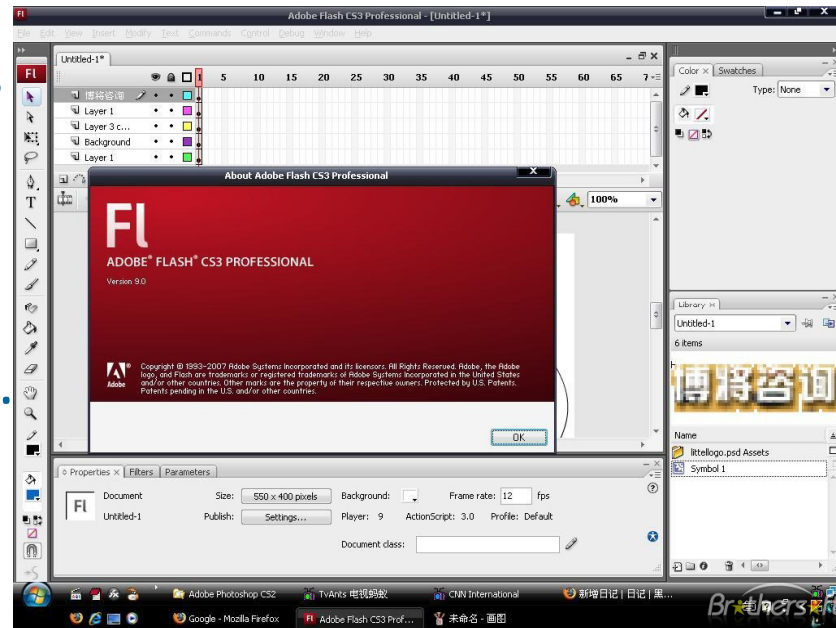




# Web Design Language

## Flash:

- ✓ Capable of combining vector or bitmap images and including video or animation for the Web.
- ✓ Creates advanced interactivity on the Web.
- ✓ Used to create Web sites, games and advertisements.





# Web Design

## Types of Browsers:

- ✓ Microsoft Internet Explorer
- ✓ Mozilla Firefox
- ✓ Apple Safari
- ✓ Opera
- ✓ Google Chrome
- ✓ Mobile Platforms





# Web Design

## Types of Web Design Features:

- ✓ Navigation
- ✓ GUI
- ✓ WYSIWYG
- ✓ Page layout
- ✓ Rollover
- ✓ Image map
- ✓ Webform





# Web Design Features

## Navigation:

- ✓ A navigation system consistently places links that allow the site users to easily access documents and Web pages (external and internal) as well as target links within the same Web page.
- ✓ A Web site navigation system should assure that the end user would know what is offered on the site, can find what they are looking for and can easily move within the site.







# Web Design Features

## GUI:

- ✓ GUI stands for Graphical User Interface.
- ✓ The use of a GUI product allows computer interaction within the use of code. Example: When a file is moved by dragging it from one location to another, the GUI triggers the commands necessary for the file to be relocated.
- ✓ There are many GUI applications for designers such as InDesign and Dreamweaver.





# Web Design Features

## WYSIWYG:

- ✓ WYSIWYG (What you see is what you get) is a Graphical User Interface.
- ✓ A WYSIWYG editing program is often referred to as a visual editor.
- ✓ Visual editors allow the user to design and manipulate a Web site without using programming code.





# Web Design Features

## Page Layout:

- ✓ Web page layouts usually consist of either tables or layers. Table tags create a gridded structure in which content can be placed.
- ✓ The use of layers allows content to be placed anywhere on a Web page.
- ✓ Multiples layers can be placed on a single page (above, below, nested).
- ✓ Due to flexibility and compliance issues, Web pages are moving more toward the use of layers.





# Web Design Features

## Image Map:

- ✓ Image maps allow multiple hyperlinks to a single graphic.
- ✓ Image maps are often used in geographic Web sites. Example: U.S. map linking to each state's information. One of the benefits of using an image map is that one image can load quicker than multiples. The negative aspect is that the user cannot interact with the hyperlinks until the entire image is displayed.





# Web Design Features

## Rollover:

- ✓ Refers to a Web design feature that allows the end user to see or hear a change in the image, text or sound of a button or link.
- ✓ Usually, once a cursor is moved from the link, the image returns to the previous state.





# Web Design Features

## Webform:

- ✓ Allows the end user to interact with a site.
- ✓ Entered data is sent to a server site and processed.
- ✓ Can also be used to query data on a Web site.  
Examples: surveys, subscriptions and billing/shipping information.
- ✓ Services are now available that allow a person or company without webform expertise to create forms and collect data through a secure site.

