Web Design

What is...

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den forskning<br>
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Executive Summary

Web design is the most important contemporary segment of design practice. Web design means the design of web page, web site and/or web application. Creating an efficient and useful interface between humans and the technology is one of the many challenges. As a matter of fact, web design contributes to other areas a view of design as a service provider and mode of thinking. When Tim Berners-Lee invented the graphic side of internet in 1991, he combined internet communication with hypertext. In the beginning, web design consisted of using a simple markup language, called HTML, that included some formatting options, and the ability to link pages together using hyperlinks.

When the web design advanced, the markup language became more complex and flexible. Database integration technologies such as server-side scripting, like CGI, PHP, ASP.NET, ASP, JSP, and ColdFusion, changed the way web was made. There are two ways of delivering the content dynamically in a web page: server-side and Client side, which is DHTML (Dynamic HTML). The introduction of Macromedia Flash into an already interactivity-ready scene that detects and reacts to human behaviour has further changed the face of the web, giving new power to designers and media creators.

A web page is displayed by using a web browser. A browser is a computer program that serves users to browse, or "surf," the web by fetching documents from web servers and displaying them to the user. Popular browsers available for personal computers include Microsoft Internet Explorer, Mozilla, Firefox, Opera, Netscape, Safari and Konqueror.

This paper is also given due focus to the markup languages of a web: HTML, XHTML, XML and CSS. HTML editor as an essential software application for creating a web page, in this paper I tried to pinpoint it's part and some of it's main editors. Nevertheless, this paper also gave focus to a web page, web site, web application, World Wide Web (WWW) and the history of web design.

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INTRODUCTION

In a decade more than a billion people already using the web and that figure is anticipate to almost double by 2010. In 1991, Tim Berners-Lee launched the World Wide Web, a multimedia section of the Internet. By way of Tim's http protocol computer jockeys the world over, began making the Net easier to use with point-and-click programs. This created a possibility to anyone could access the Net and anyone could decide what went online. However, the web would not be popularized and web pages flourished with out the facilitation of browsers such as Mosaic and, later, Netscape Navigator. Besides, the web became a powerful, liberating force that brought people closer together, and shaped new businesses. The design or designing of a web page, website or web application, therefore, became the core of this Internet era.

Web design is the design of web page, website and/or web application. The term generally refers to the graphical area of web development using images, Cascading Style Sheets (CSS) and Hypertext Markup Language (HTML). As the term has infused, it has also been taken up by an increasing number of designers and programmers who are interested in the impact on web and its future. The aim of this paper is to provide the conceptual and analytical inputs to build a theoretical background.

This paper is focused on the main markup languages of a web HTML, XHTML, XML and CSS, nevertheless also give due focus to web page, website, web application, World Wide Web (WWW) and the history of web design.

Purpose of the Study

The process of creating web sites is getting more complicated by the day as new technologies emerge and old ones fester in the background, never really disappearing but causing endless legacy problems. As a result to have more knowledge on this specified area and be more specialised is indispensable. This study will attempt to consider the above recommendation by analyzing the question, "what is web design?" Some of the main issues this study will attempt to look at are: the essential elements of web design, dynamics of web design, the mark up languages, HTML editors, style sheet and web browsers.

Moreover, this study will give due attention to the role of web and web page. The purpose of a web page is to communicate words or ideas. This becomes important mainly because, sometimes the purpose of that communication is to inform, or it could be to amuse and sometimes it is to sell. The presentation of these various communications can be radically different. This would play an important role for the implementation and functioning of a document consisting an HTML file and any

related files for scripts and graphics, and often hyperlinked to other documents on the web. Therefore, this study will also shed light on the main points that should be displayed by the web page.

As analytical study, a fruitful research question raised "what is the makeup of web design and how it is applicable on the web? ". This paper will attempt to answer this question and analyze its applicability. Moreover, the study will attempt to integrate: web page, website and web application with web development using images, Cascading Style Sheets (CSS) and Hypertext Mark-up Language (HTML). The aim of this paper is concentrates on communication, not on the mechanics of how to use web design.

Methodology

The methodology provides tools for doing project work and for obtaining useful information. Methodology incorporates the entire process of a study that is, conceptualizing and observing the problem under study and study questions to be investigated, analysis and generalization of the results. The methodology of this paper is highly determined to the secondary resources, especially Internet.

One of the most important requirements for a paper is to be regarded as reliable that the readers comprehend it as consistent and valid. The accuracy and relevance of the different languages, webs, programmes, browsers and tags mentioned in this paper were verified. As well, this paper used multiple sources of evidence; create web page/web site, interviews (informal), documents and web sites.

In general, added to the above-mentioned considerations, this project work also applied the following three main methods in gathering the necessary information:

Archival and library research: this study also includes Internet, library and archival sources. The sources can be both primary and secondary ones. The data gathered from Internet, libraries, and archives are carefully analysed and interpreted.

Field research: field research was also conducted based on the necessity. For instance, field research made on assessing the accuracy and applicability of the markup languages, web browsers, different editors and tags.

Web Design

Web design is the design of web page, website and/or web application. Consequently, it is important to look at both the terms design and web individually. Design is either set apart for a destine or purpose, and/or make preliminary sketch, and/or be a designer. Therefore design is primarily about making something fit for a purpose. And, the purpose of a web page is to communicate words or ideas.

The term, web design, generally refers to the graphical side of web development using images, Cascading Style Sheets (CSS) and Hypertext Mark-up Language (HTML). More over, web site design is becoming a very important part of graphic design.

The seven C's of Web Design

The essential elements to be considered in designing a web that affect the total image of the web site. The Seven C's are a list of seven words, starting with the letter 'C' that web sites should adhere to.

• **Context** – *the "how" of site design that includes colour, humor, focus and graphics -* is the aesthetical and functional look and feel of the web site that is contemporary, traditional, hip, edgy, utilitarian and emotional.

• **Content** – *the "what" of site design -* is a product of any digital subject matter on the site: text, video, audio, and graphics.

• **Community** – *the "why" of site design -* is a feeling of membership in a group and a strong sense of involvement; shared common interests.

• **Customization** – *the "touch" of site design -* is the site's ability to tailor itself and to cook pizza to a user or to be personalized by each user.

• **Communication** – *the "muscle" of site design -* is a dialog between the site and the user.

• **Connection** – *the networking of site design -* is the extent of formal linkages between the site and other sites. This is becoming very important as people are becoming more comfortable with using web sites to gather information and make purchases.

• **Commerce** - *the commerce of site design -* is the actual sale of goods and services on the site. If the primary focus of the web site is to sell, this becomes paramount to the design.

Brief History

When the internet was first invented, web design consisted of a very basic markup language that included some formatting options, and the unique ability to link pages together using hyperlinks. The first web designer Tim Berners-Lee invented the World Wide Web (WWW) and put the first web site online in August 1991. He first combined Internet communication with hypertext. The Internet was born out of ARPANET (Advanced Research Projects Agency) in 1983 when it switched to the TCP/IP (Transmission Control Protocol/Internet Protocol) protocol and an open network infrastructure, which had been carrying email and the Usenet. Before that, the "Internet" consisted mainly of BBS and file sharing including telnet and ftp (File Transfer Protocol) that came out in the 70s. E-mail was adapted for ARPANET by Ray Tomlinson of BBN in 1972. Hypertext had also been around for decades, but limited to browsing information stored on a single computer, such as interactive CD-ROM design.

In the beginning, web design consisted of using a simple markup language, called HTML, that included some formatting options, and the ability to link pages together using hyperlinks. It was this feature that characterized the web among other communication methods, and characterized web design among other design methods. Because of this exceptional behavior of the World Wide Web, and the unique behavior it encouraged in users, web design would prove to be unlike any other form of design before or since.

As the web and web design advanced, the markup language used to make it, known as HTML, became more complex and flexible. Things like tables, which could be used to display tabular information, were soon subverted for use as invisible layout devices. The advent of Cascading Style Sheets (CSS) table based layout is increasingly regarded as outdated. Database integration technologies such as server-side scripting, like CGI, PHP, ASP.NET, ASP, JSP, and ColdFusion, and design standards like CSS further changed and enhanced the way the web was made.

The introduction of Macromedia Flash into an already interactivity-ready scene that detects and reacts to human behavior has further changed the face of the web, giving new power to designers and media creators. This also offers new interactivity features to users. Flash is much more restrictive than the open HTML format. It requires a proprietary plug-in to be seen, as well it does not integrate with most web browser UI features like the "Back" button.

Web site

A web site is a collection of web pages, that is, HTML/XHTML documents accessible generally via HTTP (HyperText Transfer Protoco) on the Internet; all publicly accessible web sites in existence comprise the World Wide Web. The pages of a web site will be accessed from a common root URL, the homepage, and usually reside on the same physical server. The URLs of the pages organize them into a hierarchy, although the hyperlinks between them control how the reader perceives the overall structure and how the traffic flows between the different parts of the site.

Some web sites require a subscription to access some or all of their content; examples of subscription sites include many parts of many news sites, gaming sites, message boards, web-based e-mail services, Internet pornography sites and sites providing real-time stock market data.

Web application

A web application is an application delivered to users from a web server over a network such as the internet or an intranet. Web applications are popular due to the ubiquity of the web browser as a client, sometimes called a thin client. The ability to update and maintain web applications without distributing and installing software on potentially thousands of client computers is a key reason for their popularity. Web applications are used to im-

plement webmail, online retail sales, online auctions, wiki, discussion boards, weblogs, MMOR-PGs (Massively Multiplayer Online Role-Playing Game), and perform many other functions.

In contrast, web applications dynamically generate a series of web pages in a standard format supported by common browsers such as HTML/XHTML. Client-side scripting in a standard language such as JavaScript is commonly included to add dynamic elements to the user interface. Generally, each individual web page is delivered to the client as a static document, but the sequence of pages can provide an interactive experience.,

Web page

A web page can be defined literary as a document on the World Wide Web consisting of an HTML file and any related files for scripts and graphics, and often hyperlinked to other documents on the web. Wikipedia.org defines a web page as a "page" of the World Wide Web, usually in HTML/XHTML format (the file extensions are typically htm or html) and with hypertext links to enable navigation from one page or section to another. Further more, a web page is a text file coded in HTML, which may also contain JavaScript code or other commands. Web pages use associated graphics files to provide illustration, and these too can be clickable links. A web page is displayed using a web browser.

A web page can contain:

* Text
* Graphics (gif, jpeg or png)
* Audio (.mid or .wav)
* Interactive multimedia content that requires a plug-in such as Flash, Shockwave or VML
* Applets (subprograms that run inside the page), which often provide motion graphics, interaction and sound

Web pages in addition have some contents that cannot be seen in the browser:

• **Scripts (usually JavaScript)** - are adding functionality to the page, for example, powering rollover effects or verifying form input.

• **Meta tags** - are hidden content with information about the page, instructions for search engine robots, the keywords and descriptions, and etc. Meta tags help search engines to categorize the page and provide information for search results.

• **Cascading Style Sheets (CSS)** - are determining how the page is formatted.

Web pages can be larger than the web browser window. If they are often taller than the browser window require vertical scrolling. Sometimes pages have additional content on the right, which is not visible in smaller windows without horizontal scrolling. Pages designed to scroll horizontally are less common, partly because they sometimes do not print out well, but mainly because visitors find having them inconvenient.

Authors of web pages have a variety of options available for specifying colors for elements of web documents. Colors may be specified as an RGB triplet in hexadecimal format (a hex triplet); they may also be specified according to their common English names in some cases.

Hex triplet

A hex triplet is a six-digit, three-byte hexadecimal number used in HTML and CSS, and other computing applications, to represent colors. The bytes represent the red, green and blue components of the color. One byte represents a number in the range 00 to FF (in hexadecimal notation), or 0 to 255 in decimal notation. The hex triplet is formed by concatenating three bytes in hexadecimal notation, in the following order:

Byte 1: red value
Byte 2: green value
Byte 3: blue value

For example, consider the color red=36, green=104, blue=160 (a greyish-blue color). The numbers 36, 104 and 172 are 24, 68 and A0 respectively in hexadecimal notation. To obtain the hex triplet,

simply write the three hex bytes together without spaces, thus: 2468A0. If a byte is less than 10 (hex) or 16 (decimal) it must be represented with a leading zero to keep the number of digits in the triplet equal to six. For example, the decimal triplet 0,1,2 would be represented by the hex triplet 000102.

Standard color names

Black	#000000	Silver	#C0C0C0
Grey	#808080	White	#FFFFFF
Maroon	#800080	Red	#FF0050
Purple	#800000	Fuchsia	#FF00FF
Green	#008000	Lime	#00FF00
Olive	#808000	Yellow	#FFFF00
Navy	#000800	Blue	#0000FF
Teal	#008080	Aqua	#00FFFF

Dynamic web design

The traditional method of laying out web pages Hypertext Mark-up Language (HTML) is static.

There are two ways of delivering the content dynamically:

Server-side

A web server running special software constructs an HTML page 'on the fly', according to the user's request and possibly other variables, such as time or stock levels.

Suitable scripting languages include:

• **PHP**: PHP was originally known as "Personal Home Page." PHP Hypertext Preprocessor, a scripting language used to create dynamic web pages. Besides, PHP is a popular open-source programming language used primarily for developing server-side applications and dynamic web content, and more recently, other software. With syntax from C (a programming language widely used for systems programming), Java and Perl (Practical Extraction Report Language). PHP code is embedded within HTML pages for server side execution. It is commonly used to extract data out of a database and present it on the web page.

• **ASP**: Active Server Pages (ASP) is Microsoft's server-side technology for dynamically-generated

web pages that is marketed as an add-on to Internet Information Services (IIS). Programming ASP websites is made easier by various built-in objects. Each object corresponds to a group of frequently-used functionality useful for creating dynamic web pages.

• **JSP**: JavaServer Pages, known to some as the Java Scripting Preprocessor, is a Java technology that allows developers to dynamically generate HTML, XML or some other type of web page. The technology allows Java code and certain pre-defined actions to be embedded into static content.

• **ColdFusion**: ColdFusion is a tag-based, middleware programming language used chiefly for writing web-based applications. The language and its application server were originally created by JJ Allaire and his brother Jeremy Allaire.

ColdFusion is generally recognized to be fairly easy for people coming straight from HTML to learn. This is partly because it is tag based like HTML.

Extensible Stylesheet Language Transformations (XSLT) also can be used to translate data from Extensible Markup Language (XML) format into HTML. XSLT, is an XML-based language used for the transformation of XML documents. The original document is not changed; rather, a new XML document is created based on the content of an existing document. The new document may be serialized (output) by the processor in standard XML syntax or in another format, such as HTML or plain text.

Moreover, MySQL and PostgreSQL are popular free SQL (Structured Query Language) databases suitable for use with the above. They can be used to allow users, subject to password access if required, to update content.

Client-side

Client-side scripting works at the user's browser. Therefore, should not be used for "mission critical' work, where the user's capabilities are not known. It is more suited to adding decoration and other temporary content. It is most often achieved thorough JavaScript.

Client side DHTML (Dynamic HTML) can pose major problems for computer accessibility and search engine optimization. Most software designed for assisting people with disabilities, and most search engine robots do not support client side DHTML.

If a web site's menus are built with JavaScript, it is usually impossible for search engines to find the pages listed in the menus, unless an alternative navigation scheme is provided elsewhere on the page.

What is WWW?

WWW, the worldwide web, is a distributed hypertext system that operates over the Internet, which consists of the HyperText Transfer Protocol (HTTP) and HTTPS (the secure version) protocols. This allows users to jump from one HTML document on the Internet to another. These documents together constitute a large inter-linked web of documents. Since the Internet spans the globe these documents form a worldwide web.

HTTP is the most popular network protocol for exchanging documents on the World-Wide Web. It is also enables the World Wide Web to link with other web sites. Addressing to other web pages begins with "http://" and is followed by the domain name or IP address.

HTTPS is also the Hyper-Text Transfer Protocol with SSL Encryption. It is the most popular network protocol for establishing secure connections for exchanging documents on the World-Wide Web. It is basically HTTP carried over a TCP socket, which has been secured using Secure Socket Layer (SSL). SSL is a protocol that encrypts a single TCP session.

TCP is the Transmission Control Protocol. It is used to establish connection-oriented, sequenced and error-free sessions over Internet Protocol (IP) networks.

HTML

HyperText Markup Language (HTML) is a markup language designed for the creation of web pages and other information viewable in a browser. HTML is used to structure information - denoting certain text as headings, paragraphs, lists and so on, and can be used to define the semantics of a document. The coding system used to create WWW pages. A page written in HTML is a text file that includes tags in angle brackets that control the fonts and type sizes, insertion of graphics, layout of tables and frames, paragraphing, calls to short runnable programs, and hypertext links to other pages. Files written in HTML generally use an .html or .htm extension.

Semantic markup is a document that contains tags that attempt to convey the meaning of the text. For instance, an <h1> tag is used to indicate a top-level heading, while the <ul> and <li> tags are used to mark lists of items in no particular order.

Originally defined by Tim Berners-Lee and further developed by the IETF with a simplified Standard Generalized Markup Language (SGML) syntax, HTML is now an international standard (ISO/IEC 15445:2000). The World Wide Web Consortium (W3C) maintains later HTML specifications.

Early versions of HTML were defined with looser syntactical rules, which helped its adoption by

those unfamiliar with web publishing. Web browsers commonly made assumptions about intent and proceeded with rendering of the page. Over time, the trend in the official standards has been to create increasingly strict language syntax. However, browsers still continue to render pages that are far from valid HTML. The current version of the HTML specification is now XHTML 1.0, this being very similar to the earlier HTML 4.01 that it replaced. The change from HTML to XHTML applies the stricter rules of XML to HTML to make it easier to process and maintain.

Further more, HTML is a text-based format that is designed to be both readable and editable by humans using a text editor. However, writing and updating a large number of pages by hand in this way is time consuming, which requires a good knowledge of HTML and can make consistency difficult to maintain. Visual HTML editors such as Macromedia Dreamweaver, Adobe GoLive or Microsoft FrontPage allow the creation of web pages to be treated much like word processor documents. However, the code generated by these programs is frequently of poor quality.

HTML documents are made up of elements called tags, which define the presentation of the web page. Most tags in an HTML document must be followed somewhere in the file with a closing tag.

For example:

> *This is an opening tag: <blockquote>*
> *This is a closing tag: </blockquote>*

Basic format of every HTML page:

<html>
<head>
<title>Page Title</title>
</head>
<body>
The main part of the document goes here.
</body>
</html>

Each tag within the HTML document has a purpose, For example:

<html> tag at the top of the file, and the closing </html> tag at the very end of the file.

The opening html tag is find the <head> section. Here it will place on a web page keywords, description, and page title. Some of the tags associated with the head section are:

<head> </head>

These tags open and close the head section. the keyword, description, and title tags must be placed between these tags.

<title> </title>
The title of the web page will go between these tags. The title include here will appear at the top of the browser window when someone views the web page, and will also appear when someone creates a bookmark this page.

<meta>
Meta tags can be use to describe the site and help search engines catalog of web page.

The body of the page — the page content, including text, images, and links — appears after the closing head tag. With the opening <body> tag, It can also set a background image or color for a page, as well as the color of a text and HTML links.

HTML Markup

There are four kinds of markup elements in HTML:

• Structural markup that describes the purpose of text, for example, <h1>Golf</h1> will cause a reader to treat "Golf" as a first-level heading

• Presentational markup that describes the visual appearance of text regardless of its function,

for example, boldface will render boldface text. Presentation markup is deprecated and is not recommended; authors should use CSS for presentation.

• Hypertext markup that links parts of the document to other documents, for example, google will render the word google (http://www. google.com) as a hyperlink to the specified URL.

• Widget elements that create object such as buttons and lists.
Moreover, the presentational mark-up, which is deprecated the mark-up itself does not determine how the content within that mark-up will look. Basically, all the mark-ups tell what the role of the content is. Is it a paragraph? Is it a heading? Is it a list? Or is it a link? It is up to the Cascading Style Sheets to determine what that heading, list, or link will look like.

XHTML

Extensible HyperText Markup Language is a markup language that has the same expressive possibilities as HTML, but a stricter syntax. HTML is an application of SGML, a very flexible markup language, XHTML is an application of XML, a more restrictive subset of SGML. . Due to the need to be well formed (syntactically correct), XHTML document allow automated processing to be performed using a standard XML library.

HTML requires a relatively complex, lenient and generally custom parser (an SGML parser library could possibly be used). XHTML can be thought of as the intersection of HTML and XML in many respects, since it is both valid HTML and XML.

The changes from HTML to transitional XHTML are minor, and are mainly to achieve conformance with XML. The most important change is the requirement that the document must be well formed and all elements must be closed. Additionally, in XHTML, all tags must be written in lowercase. This is in direct contrast to established traditions which began around the time of HTML 2.0. In XHTML, all attributes, even numerical ones, must be quoted. (This is not mandatory in SGML (hence in HTML), where quotes are not required if the content consists only of alphanumeric and certain allowed special characters.) All elements must also be closed, including empty elements such as img and br. This can be done by adding a closing slash to the start tag: and <br />. Attribute minimization (e.g., <option selected>) is also prohibited; instead, use <option selected="selected">.

XML
The essence of XML is in its name: Extensible Markup Language.

• **Extensible:** XML is extensible. It lets the designer define its own tags, the order in which they occur, and how they should be processed or displayed. Another way to think about extensibility is to consider that XML allows all parties to extend the notion of what a document is: it can be a file that lives on a file server, or it can be a transient piece of data that flows between two computer systems (as in the case of Web Services).

• **Markup:** The most recognizable feature of XML is its tags, or elements (to be more accurate). In fact, the elements created in XML will be very similar to the elements that have already been creating in the HTML documents. However, XML allows designers to define their own set of tags.

• **Language:** XML is a language that's very similar to HTML. It is much more flexible than HTML because it allows to create custom tags. However, it is important to realize that XML is not just a language. XML is a meta-language: a language that allows us to create or define other languages. For example, with XML we can create other languages, such as RSS, MathML (a mathematical markup language), and even tools like XSLT.

XML is derived from SGML and has largely superseded SGML. XML is a profile—a specific subset of SGML, designed to be simpler to parse and process than full SGML.

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SGML

The Standard Generalized Markup Language is a metalanguage in which one can define markup languages for documents. SGML is a descendant of IBM's(International Business Machines Corporation) Generalized Markup Language (GML), developed in the 1960s by Charles Goldfarb, Edward Mosher and Raymond Lorie (whose surname initials also happen to be GML). SGML should not be confused with the Geography Markup Language (GML) developed by the Open GIS Consortium; cf, or the Game Maker scripting language, GML.

SGML provides a variety of markup syntaxes that can be used for many applications. By changing the SGML Declaration one does not even need to use "angle brackets" although they are the norm, the so-called concrete reference syntax.

SGML was originally designed to enable the sharing of machine-readable documents in large projects in government, legal and the aerospace industry, which have to remain readable for several decades—a very long time in information technology. It has also been used extensively in the printing and publishing industries, but its complexity has prevented its widespread application for small-scale general-purpose use.

HTML editor

There are two types of HTML editors: Text and What You See Is What You Get (WYSIWYG).

Text editors

Text editors usually provide syntax highlighting, toolbars and keyboard shortcuts for quickly inserting HTML elements. Wizards and dialogue boxes help with tasks like adding the basic page structure or creating tables. Text editors require at least a basic understanding of HTML and CSS.

WYSIWYG editors

WYSIWYG editors provide an editing interface, which resembles how the page will be displayed in a web browser. Often the WYSIWIG editor will also have a mode to edit HTML directly like a text - HTML editor. Applying a WYSIWYG editor does not require any HTML knowledge they are easier for an average computer user.

One way to achieve this is to embed the layout engine used by the web browser. In this way, the rendered result should be identical to that produced by the web browser.

Adobe Golive

GoLive is an HTML editor from Adobe Systems. The latest version is called "CS2" by Adobe, indicating its integration with the rest of the Adobe Creative Suite. One of its main competitors is Macromedia Dreamweaver, which has a larger market share. But after Adobe Systems announced that it would be merging with Macromedia in April 2005, Go Live is expect to be phased out, and replaced by Dreamweaver soon after.

Adobe GoLive is a powerful WYSIWYG editor that does more than just assist in editing Web pages. It also helps create sites that make sense. The direct integration with other Adobe products makes a web site more functional and powerful as right out of the box. In addition, with the diagramming tools, it will be able to set up powerful site maps and architect - the navigation of the site.

Microsoft FrontPage

Microsoft FrontPage is a What You See Is What You Get (WYSIWYG) HTML editor and web site administration tool from Microsoft for the Windows operating system. It is part of Microsoft Office and included in some versions of the popular bundle.

FrontPage was initially created by the Cambridge, Massachusetts Company Vermeer Technologies Incorporated, evidence of which can be easily spotted in filenames and directories prefixed _vti_ in web sites created using FrontPage. Microsoft acquired Vermeer in 1996 specifically so that Microsoft could add FrontPage to its product line-up.

FrontPage used to require proprietary plug-ins known as the FrontPage Server Extensions to be installed in the target web server. However newer versions of FrontPage also support the standard WebDAV protocol from W3C.

As a WYSIWYG editor, FrontPage is designed to hide the details of pages' HTML code from the user, and making it possible for non-experts to easily create Web pages and sites. Some web developers criticize this approach as producing HTML pages that are much larger than they should be and cause web browsers to perform poorly. In addition, some people criticize FrontPage specifically for producing code that often does not comply with W3C standards and sometimes does not display correctly in non-Microsoft web browsers.

Macromedia Dreamweaver

Macromedia Dreamweaver is an HTML editor developed by Macromedia. It was originally targeted at professional web designers and offers an editing system that combines both the productivity of WYSIWYG design with the control of

HTML code editing mode. This combination was quite unique and helped Dreamweaver to a widespread adoption in late 1990's. It is currently available for Mac and Windows and holds about 80% of the professional HTML editor market.

Dreamweaver is the editor of choice for creating and editing web templates. The latest version is Macromedia Dreamweaver 8. In addition to native support for Mac OS X and Windows, Dreamweaver also can run on Linux and other UNIX platforms using the WINE compatibility layer or the commercial product CrossOver Office.

As a part WYSIWYG editor, Dreamweaver can hide the details of pages' HTML code from the user, making it possible for non-experts to easily create web pages and sites.

Dreamweaver Versions

• Dreamweaver 1.0 Released December 1997
• Dreamweaver 1.2 followed in March 1998
• Dreamweaver 2.0 Released December 1998
• Dreamweaver 3.0 Released December 1999
• Dreamweaver UltraDev 1.0 Released December 1999
• Dreamweaver 4.0 Released December 2000
• Dreamweaver UltraDev 4.0 Released December 2000
• Dreamweaver MX Released May 2002
• Dreamweaver MX 2004 Released September 2003
• Dreamweaver 8 Realeased September 2005

Microsoft FrontPage

The current version is Microsoft FrontPage 2003 (version 6).
• Microsoft FrontPage 1.0 for mac
• Microsoft FrontPage Express 2.0
• Microsoft FrontPage 95
• Microsoft FrontPage 97
• Microsoft FrontPage 98
• Microsoft FrontPage 2000 version 4
• Microsoft FrontPage 2002 version 5
• Microsoft FrontPage 2003 version 6

HTML Version

• HTML 1.o - published June 1993 as an Internet Engineering Task Force (IETF) working draft.
• HTML 2.0 - published November 1995 as IETF RFC 1866, approved as a proposed standard September 22, 1995 and declared obsolete/historic by RFC 2854 in June 2000.
• HTML 3.2 - published January 14, 1997 as a W3C Recommendation.
• HTML 4.0 - published December 18, 1997 as a W3C Recommendation.
• HTML 4.01 - published December 24, 1999 as a W3C Recommendation.
• ISO/IEC 15445:2000 ("ISO HTML", based on HTML 4.01 Strict) - published May 15, 2000 as an ISO/IEC international standard.
• XHTML 1.0 - published January 26, 2000 as a W3C Recommendation, later revised and republished August 1, 2002.

Cascading Style Sheets

Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation of a document written in a markup language. CSS is used by both the authors and readers of web pages to define colors, fonts, layout, and other aspects of document presentation. It is designed primarily to enable the separation of document structure (written in HTML or a similar markup language) from document presentation (written in CSS). This separation provides a number of benefits, including improved content accessibility, greater flexibility and control in the specification of presentational characteristics, and reduced complexity of the structural content. CSS has a simple syntax, and uses a number of English keywords to specify the names of various style properties. Its most common application is to style web pages written in HTML and XHTML, but the language can be applied to any application of XML, such as SVG or XUL. The World Wide Web Consortium (W3C) maintains the CSS specifications.

Advantages of using CSS:
* Presentation information for an entire website or collection of pages resides in one place, and can be updated quickly and easily.
* Different users can have different style sheets: large print and text readers for example.
* The document code is reduced in size and complexity, since it does not need to contain any presentational markup.

style sheet

A master page layout used in document creation systems such as word processing, desktop publishing and the Web. The style sheet is a file that is used to store margins, tabs, fonts, headers, footers and other layout settings for a particular category of document. When a style sheet is selected, its format settings are applied to all the documents created under it, saving the page designer or programmer from redefining the same settings over and over again for each page.

Web browser

A browser is a computer program that serves users to browse, or "surf," the web by fetching documents from web servers and displaying them to the user. This program specifically designed to help users view and navigate hypertext, on-line documentation, or a database. Web browser is software application enables a user to display and interact with HTML documents hosted by web servers or held in a file system. Popular browsers available for personal computers include Microsoft Internet Explorer, Mozilla, Firefox, Opera, Netscape, Safari and Konqueror. A browser is the most commonly used kind of user agent. The largest networked collection of linked documents is known as the World Wide Web.
When a site says, "best viewed by Netscape" or "best viewed by Internet Explorer," it means the page was programmed for that particular browser.

Using the other browser will ignore some of the page's visual features until a subsequent release supports them.

Microsoft Internet Explorer

Internet Explorer, abbreviated IE or MSIE, is a proprietary web browser made by Microsoft and currently available as part of Microsoft Windows. Internet Explorer is the most widely used web browser today, although since 2004 it has lost some usage share to other browsers, especially Mozilla Firefox. As of October 2005, IE's usage share is about 86%.

Internet Explorer had also been available as a separate, free-of-charge product for many older versions of Windows, and several other operating systems. For some time, Microsoft produced Internet Ex-

plorer for Mac and versions for use through the X Window System on Solaris and HP-UX. Although Internet Explorer for Mac is still available for download, all of these versions have ceased active development.

Mozilla

Mozilla was originally the code name for the Netscape Navigator Web browser and Netscape's first alligator-like mascot. Mozilla stood for "Mosaic Killer," because Netscape wanted to reign supreme, which it did for a while.

The Mozilla Foundation is a non-profit organization that exists to support and provide leadership for the open source Mozilla project. The organization sets the policies that govern development, operates key infrastructure and controls trademarks and other intellectual property. It owns a taxable subsidiary called the Mozilla Corporation, which employs several Mozilla developers and coordinates releases of the Mozilla Firefox web browser and the Mozilla Thunderbird email client. The Mozilla Foundation is based in Mountain View, California.

Mozilla serves as a reference platform for standards compliance and quality control. Mozilla-based products are the Mozilla browser for Windows, Linux and Mac, the Camino browser for Mac, and

the Firefox browser and Thunderbird e-mail client for Windows. Introduced in 2004, Firefox and Thunderbird are next-generation products.

Mozilla Firefox

Mozilla Firefox (originally known as "Phoenix" and briefly as "Mozilla Firebird") is a free, cross-platform, graphical web browser developed by the Mozilla Foundation, which is part of the open-source Mozilla project. Before its 1.0 release on November 9, 2004, Firefox had already gained acclaim from numerous media outlets, including Forbes and the Wall Street Journal.

One of the most popular browsers, after Internet Explorer, Firefox released its beta version 1.5 in September, 2005.With over 25 million downloads in the 99 days after its release, Firefox became one of the most used free and open source applications, especially among home users. On October 19, 2005, Firefox had its 100 millionth download, just 344 days after the release of version 1.0.

Firefox includes an integrated pop-up blocker, tabbed browsing, live bookmarks, support for open standards, and an extension mechanism for adding functionality. Although other browsers have introduced these features, Firefox became the first such browser to achieve wide adoption. Further more, innovative and highly praised open sources

Web browser for Windows, Mac and Linux from the Mozilla project, including a built-in Google search. The Firefox user interface is designed to be easily customizable by adding "extensions," such as a stock tracker, auto fill and hundreds of others.

Firefox has attracted attention as an alternative to other browsers such as Microsoft Internet Explorer. As of September 2005, an estimate of Firefox's usage share is around 7.6% of overall browser usage. In other words, Firefox has slightly reduced Internet Explorer's dominant usage share.

Opera

Opera is a computer application for dealing with many of the most common internet-related tasks, including: web browsing, sending and receiving messages, managing contacts and online chat.

Opera is developed by Opera Software, based in Oslo, Norway and is designed to run on a variety of operating systems, including Microsoft Windows, Mac OS X and Linux. It has gained a leading role for use in mobile phones, smart phones and Personal Digital Assistants, and is also used in Interactive televisions. Other companies for use in such products as Adobe Creative Suite also license technology from Opera.

Netscape

A Web browser for Windows, Macintosh and X Windows from Netscape that provides secure transmission over the Internet. Netscape is the general name for a series of web browsers originally produced by Netscape Communications Corporation, but now developed by AOL. The team who had created the Mosaic web browser at the National Center for Supercomputing Applications developed Netscape Navigator. The company they created was initially named "Mosaic Communications Corporation" and their web browser "Mosaic Netscape", but a legal challenge from NCSA over the rights to the name resulted in the company and the product being renamed.

Soon after its introduction in 1994, Navigator, or just "Netscape" as it is commonly called, quickly became the leading Web browser on the Web. The original browser was once the dominant browser in terms of usage share, by the mid 1990's; Netscape Navigator had 80% of the market. But it now has only a relatively small number of users. Netscape responded by open sourcing its product, creating Mozilla. This did nothing to slow Netscape's declining market share.

Safari

Safari is a web browser developed by Apple Computer, Inc. and available as part of its Mac OS X operating system. It was included as the default browser in Mac OS X v10.3 (Panther) and is the only browser bundled with Mac OS X v10.4 (Tiger).

Safari uses Apple's brushed metal user interface, has a bookmark management scheme that functions like the iTunes jukebox software, is integrated with Apple's QuickTime multimedia technology, and features a tabbed-browsing interface similar to that of Mozilla. A Google search box is a standard component of the Safari interface, as are software services, which automatically fill out Web forms and spell-check entries into web page text fields.

Konqueror

Konqueror is a file manager, web browser and file viewer, developed as part of the K Desktop Environment (KDE) by volunteers and runs on most Unix-like operating systems. Like the rest of the "kdebase" package, Konqueror is licensed under the GNU General Public License (GPL). The name Konqueror is a play on the names of other browsers: first comes the Navigator, then the Explorer, and finally the Konqueror (and follows the KDE convention of having program names start with the letter K).

Konqueror uses a very capable HTML rendering engine called KHTML. This engine is implemented as a KPart and as such, it can be easily used by other KDE programs. KHTML is also used by the Apple browser Safari.

Conclusion

For the last 15 years web design is turn out to be the most important contemporary segment of design practice. Web design literary mean the design of web page, website and/or web application. Hence, creating an efficient and useful interface between humans and the technology is one of the many challenges. To ease this challenge adoption of the essential seven C elements in designing a web that affect the total image of the web site is of the essence. Seven C's are a list of seven words, starting with the letter 'C' that web sites should adhere to. As a matter of fact, Web design contributes to other areas a view of design as a service provider and mode of thinking. Web design is more than the implementation of a design.

The invention of World Wide Web (WWW) by Tim Berners-Lee in August 1991 put the first web site online. This introduced the graphic area of a multimedia to the Internet. In the beginning, web design consisted of using a simple markup language, called HTML, that included some formatting options, and the ability to link pages together using hyperlinks. As the web and web design advanced, the markup language became more complex and flexible. Database integration technologies such as server-side scripting, like CGI, PHP, ASP.NET, ASP, JSP, and ColdFusion, and design standards like CSS further changed and enhanced the way the web was made. There are two ways of delivering the content dynamically in a web: server-side and Client side, which is DHTML (Dynamic HTML). The introduction of Macromedia Flash into an already interactivity-ready scene that detects and reacts to human behavior has further changed the face of the web, giving new power to designers and media creators.

A web page is a document on the World Wide Web usually in HTML/XHTML format file and any related files for scripts and graphics, and often hyperlinked to other documents on the web. Web pages use associated graphics files to provide illustration, and these too can be clickable links. web pages also have some contents that cannot be seen in the browser such as scripts, mega tags and CSS. Web page authors have a variety of options available for specifying colors, RGB triplet in hexadecimal format, for elements of web documents. A web page is displayed by using a web browser. A browser is a computer program that serves users to browse, or "surf," the web by fetching documents from web servers and displaying them to the user. Popular browsers available for personal computers include Microsoft Internet Explorer, Mozilla, Firefox, Opera, Netscape, Safari and Konqueror.

Further more, a collection of web pages, which are HTML/XHTML documents accessible gen-

erally via HTTP on the Internet defines a web site. HTML is a markup language designed for the creation of web pages and other information viewable in a browser. HTML documents are made up of elements called tags, which define the presentation of the web page. Most tags in an HTML document must be followed somewhere in the file with a closing tag. HTML has four kinds of markup elements: Structural, Presentational, Hypertext and Widget elements. More over, XHTML Extensible HyperText Markup Language is a markup language that has the same expressive possibilities as HTML, but a stricter syntax. The change from HTML to XHTML applies the stricter rules of XML to HTML to make it easier to process and maintain.

SGML, The Standard Generalized Markup Language is also a metalanguage in which one can define markup languages for documents.

An HTML editor, a software application, is also essential for creating web pages. There are two types of HTML editors: Text and What You See Is What You Get (WYSIWYG). WYSIWYG editors provide an editing interface, which resembles how the page will be displayed in a web browser. Some of the HTML editors Adobe Golive, Microsoft FrontPage and Macromedia Dreamweaver are discussed. In a nutshell, grasping the key technical concepts behind the Internet and the web is essential for web designing to retain an effective and efficient outcome.

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