

# History of the Internet and The World Wide Web

The Internet is a product of the 1960's. It is a vast network of other networks that electronically connect millions of people worldwide. The World Wide Web was not created until the late 1980's when the demand for quick communication and sharing of information became a priority for the average person. To better understand the Internet and the World Wide Web, we must look at a brief history of how it came to be.

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## In The Beginning...

1) The **Internet** was originally created in the 1960's by the US military as a means of communication. This new system allowed bases all over the United States to talk to each other reliably. It was a great advantage to have such a communications system.

**Definition:** The **Internet is a massive network** that connects many smaller networks so that electronic information that can be shared between the computers on this networks.

2) In the 1970's, universities and other educational institutions started to share this technology. More and more networks started to grow together, sharing information.

3) In 1989 Tim Berners-Lee came up with the idea of the World Wide Web.

**Definition:** The **WWW is the information that is being shared on the Internet**. It consists of web pages and content that can be shared.

To share this information electronically, Tim Berners-Lee created **HTTP (HyperText Transfer Protocol)** and **HTML (HyperText Markup Language)**.

**Definition:** HTTP is the **set of rules** that describes how the information would move across the internet

**Definition:** HTML was the coding language used to make web pages.

4) By 1991, **HTML 1.0** was created. It was the first version of the language. The basic building block of HTML is the "**Tag**" which tells your browser how to display the content.

For example, to put a paragraph of text on your page, you would put the text between two tags:

`<p>This text would show up as a paragraph in your browser </p>`

The original focus of HTML was to describe the structure of a web document, not its appearance. The document used structural elements like the document title, head, body, headings, links, paragraphs, and lists. No images or multimedia were used or expected. **This means that original web pages contained text only.**

5) In 1993, the NCSA released Mosaic for Windows and Macintosh. This browser was really the first to make the Web easy to use. At this point, Web Browsers would determine the appearance of the page based on the abilities of the browser. This led to the...

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## Battle Of The Browsers

6) In 1994 **Netscape** was born, bringing with it **proprietary** tags that allowed Web pages to use tables and other useful (but not official) features. **Netscape** soon over took Mosaic as the **most widely used browser on the planet.**

7) By 1995 there were dozens of Web browsers available for a very modest fee (usually shareware or freeware).

8) Also in 1995, Microsoft decided to release **Internet Explorer** for free with their Windows 95 operating system, and added a ton of their own **proprietary tags** to take on Netscape - Netscape (NS) and Internet Explorer (IE) started competing against each other. Each company would release a new version each year adding more of their own tags and options **trying to gain more support from Web designers.** They figured that if they could provide features the other company couldn't then designers would design websites that would work best with browser, and people all over the world would have to use their browser.

At first designers loved all of the new features and tags that they could use to do new things. If you were a designer, and you made your page to be compatible with Netscape version 4, you would simply place a message on your page saying *"Best viewed with Netscape 4.* At the time, this was widely accepted.

What this meant to people surfing the web, was if you wanted to view the page, you had to install Netscape version 4 on your computer. As you can imagine this presented some big problems for the general public who might now be so tech savvy.

Eventually, companies began to see this as unprofessional and so web sites had to be seamless, work on all browsers equally, and not force a user to download and install a different browser to view your page. This presents a huge headache for designers!

The solution to this was very hard on web designers. Designers had to create many different versions of their entire web site. Then, they would use Javascript on the main page detect the browser and send users to the appropriate site depending on the browser they are using. They would design one version for IE, one for NS, one using Flash, one for hand-held devices... and so on.... Basically 5 times the work!

## The First Solution

9) In 1996, designers got fed up and demanded a solution and the **W3C (World Wide Web Consortium)** created one standard for HTML that would be supported by every browser.

The W3C (made up of **Microsoft, Netscape, IBM, Sun Microsystems and others**) decided to merge the most popular and useful tags into one official language that all browsers would support equally.

10) In 1997, the new **W3C HTML 4.0 standard** was released and each browser released a new version that followed all specifications. Of course, neither IE or NS were willing to abandon their old ways completely because it would mean that pages currently on the internet that were designed for their old browser standards would not work properly.

For this reason, the new browser versions still supported their previous HTML tags, and designers continued to use them because it was easier than telling designers that they would have to re-create everything.

This created big problem because, less qualified designers still used the old code and would not adopt the new HTML standard. This is why, even today, you still see some pretty bad code being used in web pages.

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## The Second Solution

11) In 1999, the W3C stepped in again and proposed the idea of **CSS (Cascading Style Sheets)** and **XHTML 1.0 (Extensible Hypertext Markup Language)** to solve these problems.

This new The idea was to have an HTML language that would return to the "**Old School**" ways where the page contained only the structural items like text, and a new language (**CSS**) would handle the design.

Although there was still some backwards compatibility, designers quickly found that it is cleaner, faster, and more efficient to write code the new way, than the old.

12) In 2002 the W3C released **XHTML 2.0**, which removed backwards compatibility with older browser tags. This made the language of the web even more uniform.

13) Finally, in 2008, the W3C released **CSS3**, which brought with it many new options for designing your pages.

The two languages we will be using in this course are **XHTML 2.0 and CSS3**.