Tim Berners-Lee: Father of the Web

The World Wide Web came into being in 1991, thanks to developer Tim Berners-Lee and others at the European Laboratory for Particle Physics, also known as Conseil Europ ne pour la Recherche Nucl re (CERN). The CERN team created the protocol based on hypertext that makes it possible to connect content on the Web with hyperlinks. Berners-Lee now directs the World Wide Web Consortium (W3C), a group of industry and university representatives that oversees the standards of Web technology.
Early on, the Internet was limited to noncommercial uses because its backbone was provided largely by the National Science Foundation, the National Aeronautics and Space Administration, and the U.S. Department of Energy, and funding came from the government. But as independent networks began to spring up, users could access commercial Web sites without using the government-funded network. By the end of 1992, the first commercial online service provider, Delphi, offered full Internet access to its subscribers, and several other providers followed.
In June 1993, the Web boasted just 130 sites. By a year later, the number had risen to nearly 3,000. As of April 1998, there were more than 2.2 million sites on the Web.

What are domains?

Domains divide World Wide Web sites into categories based on the nature of their owner, and they form part of a site's address, or uniform resource locator (URL). Common top-level domains are:

- **.com**—for commercial enterprises
- **.org**—for nonprofit organizations
- **.net**—for networks
- **.edu**—for educational institutions
- **.gov**—for government organizations
- **.mil**—for military services
- **.int**—for organizations established by international treaty
- **.biz**—commercial and personal
- **.info**—commercial and personal
- **.name**—for personal sites

Additional three-letter, four-letter, and longer top-level domains are frequently added. Each country linked to the Web has a two-letter top-level domain, for example .fr is France, .ie is Ireland.

What is the difference between the Internet and the World Wide Web?
The **Internet** is a massive network a networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information that travels over the Internet does so via a variety of languages known as protocols. The **World Wide Web**, or simply *Web*, is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web uses the HTTP protocol, only one of the languages spoken over the Internet, to transmit data. Web services, which use HTTP to allow applications to communicate in order to exchange business logic, use the Web to share information

DNS

The domain name system (DNS) is an Internet service that translates domain names (like hotwired.com) into IP addresses (like 204.160.88.11). We use domain names because people can remember words better than numbers, but Web servers still need the IP numbers to access the page. Every time you use a domain name, a DNS server must translate the name into the corresponding IP address.

ISP
Short for Internet service provider, an ISP owns and operates all of the equipment (telephony, digital cable, servers, etc.) that allow you to connect to the Internet from your home or office. Most ISPs sell access to their services for a small monthly fee, which you can access by "calling in" or "connecting to" your ISP's computer network. Examples of large ISPs in the United States are Earthlink, America Online and NetZero

Applet

An applet is a small program designed to run within another application. Applets are useful on the Web because, once they are downloaded, they can be executed quickly within the user's browser. More than one applet can exist in a single document, and they can communicate with one another while they work. Java is one of the major languages used for creating Web-based applets.

Bitmap

A bitmap is a mapped array of pixels that can be saved as a file. Both JPEG and GIF are bitmap graphic formats. Currently, the only other way to store an image is as a vector graphic. You can't easily scale bitmap images, but you can control every single pixel and thus achieve many effects impossible in vector graphics. Conversely, vector formats offer advantages of scalability and lower bandwidth requirements. When you compress a bitmapped image, you suck out some of the visual information. To bypass this, the portable network graphics format (or PNG, pronounced "ping") was designed to store a single bitmap image for transmittal over computer networks without losing this data.

CGI
The **common gateway interface** is a specification that allows data to be passed

back and forth between a Web server and a user visiting a site. CGI applications can be written in languages such as C, C++, Java and PERL.

Broadband
Broadband is a general term used to describe any high-speed, high-bandwidth, "always on" Internet connection. Cable modems, DSL modems, satellite link-ups, and T1 lines are all broadband devices. Dial-up modems and other low-bandwidth devices are called "narrowband."

Browser

Browsers are software programs that view Web pages and help you move through the Web. The browser that triggered the WWW explosion was Mosaic, a public domain graphical user interface (GUI) from the National Center for Supercomputer Applications (NCSA). Released in 1993, Mosaic made it possible to design documents containing images for display over the Internet. Up to that point, an Internet document was basically just a bunch of text on a server. In 1994, Mosaic ship-jumper Marc Andreessen released Netscape 1.1, following Mosaic's successful lead, by distributing the browser free of charge on the Internet in order to establish a wide user base.

CSS, or cascading style sheets, allow you to define how Web page elements are displayed. Specific margins or colors can be associated with headers and links, for example. When style sheets are applied to a new page, the elements are changed according to the specifications of the style