The **World Wide Web** ("WWW" or simply the "Web") is a global information medium which users can read and write via computers connected to the Internet. The term is often mistakenly used as a synonym for the Internet itself, but the Web is a service that operates over the Internet, as e-mail does. The history of the Internet dates back significantly further than that of the World Wide Web.

In 1980, Tim Berners-Lee, an independent contractor at the European Organization for Nuclear Research (CERN), Switzerland, built ENQUIRE, as a personal database of people and software models, but also as a way to play with hypertext; each new page of information in ENQUIRE had to be linked to an existing page.

By Christmas 1990, Berners-Lee had built all the tools necessary for a working Web:

the HyperText Transfer Protocol (HTTP) 0.9,

the HyperText Markup Language (HTML),

the first Web browser (named WorldWideWeb, which was also a Web editor),

the first HTTP server software (later known as CERN httpd),

the first web server (http://info.cern.ch),

and the first Web pages that described the project itself.

Protocol: A protocol is a set of rules that is used to communicate applications to each other.

OR

A protocol is the interface required for communicating the different applications. Different Protocols that are used in web

HTTP TCP/IP

ICMP UDP

OSPF MIME

RIP FTP

IGRP E-MAIL

POP3 TELNET

HTTP: Hyper text transfer Protocol.

TCP / IP: Transmission control Protocol / Internet Protocol.

ICMP: Internet Control Message Protocol.

OSPF: Open Shortest path first.

RIP: Routing Information Protocol.

IGRP: Interior gateway routing protocol.

POP3: Post office protocol version 3.

UDP: User datagram protocol.

MIME: Multipurpose internet mail extension.

HTTP defines nine methods (sometimes referred to as "verbs") indicating the desired action to be performed on the identified **resource**. What this resource represents, whether pre-existing data or data that is generated dynamically, depends on the implementation of the server. Often, the resource corresponds to a file or the output of an executable residing on the server.

HEAD

Asks for the response identical to the one that would correspond to a GET request, but without the response body. This is useful for retrieving meta-information written in response headers, without having to transport the entire content.

GET

Requests a representation of the specified resource. Note that GET should not be used for operations that cause side-effects, such as using it for taking actions in web applications. One reason for this is that GET may be used arbitrarily by robots or

<u>crawlers</u>, which should not need to consider the side effects that a request should cause. See safe methods below.

POST

Submits data to be processed (e.g., from an <u>HTML form</u>) to the identified resource. The data is included in the body of the request. This may result in the creation of a new resource or the updates of existing resources or both.

PUT

Uploads a representation of the specified resource.

DELETE

Deletes the specified resource.

TRACE

Echoes back the received request, so that a client can see what (if any) changes or additions have been made by intermediate servers.

OPTIONS

Returns the HTTP methods that the server supports for specified <u>URL</u>. This can be used to check the functionality of a web server by requesting '*' instead of a specific resource.

CONNECT

Converts the request connection to a transparent TCP/IP tunnel, usually to facilitate SSL-encrypted communication (HTTPS) through an unencrypted HTTP proxy.

PATCH

Is used to apply partial modifications to a resource.

• HTTP servers are required to implement at least the GET and HEAD methods and, whenever possible, also the OPTIONS method.

Web Roles and Responsibilities

Roles and responsibilities define the functions performed by staff on your Web team. Some of the roles on a Web team are:

Project manager

Content manager

Editor

Digital/content strategist

Designer

Information architect

Programmer/coder

IT specialist

Analytics specialist

Usability specialist

Subject matter expert/content contributor

Some people on a Web team may have more than one role. For example, a Web manager (who acts as the editor—in—chief for the website) may conduct some usability testing. And a Web editor may produce some Web analytics reports.

A "roles and responsibilities" document explains what each member of your Web team does. The document can be in a simple format, with title, role, and responsibilities. Or it can be more complex, providing fine points about role distinctions and types of responsibilities for specific programs or projects.

Typically, roles and responsibilities are included in the team's Web governance documents

Connecting to Internet

Before you can explore the Internet, you need to have access to a computer that is a part of network. When you buy a telephone, it doesn't work right out of the box. Before you make first call you need to pay, to have line connected by the telephone company, so that you can hear the dial tone. Similarly you can't dial the Internet's services until your modem can connect with a computer, that is part of the Internet.

Once you have an —Internet dial tone. You will be able to access the Internet's resources.

Individuals and small business companies can access the internet using a dialup connection. A dial-up connection simply mean that when you want to access the Internet, your modem dials a host computer and you can go about your business. Dial-up access means your phone line is only tied up while you're actually using the Internet.

If you're trying to connect to a large group of people who require connection simultaneously, extremely fast connections to the Internet, dial-up access is not the best choice. If you're connecting to more than 20 people who require silmultaneous and permanent Internet connections, you may need that leased line, terminal server, router and other equipments. Those of us who need simple dialup access needs only a computer, a modem, a telephone line, an account with a service provider and the appropriate software.

Modem

At first your computer must have a Modem. Modem (modulator-demodulator) is a device that converts data to an analog signal that can be transmitted over telephone lines. The computer's digital information is transmitted as analog signal. At the receiving end the analog signal is converted to digital information in a readable form.

Modems are available in various forms. The standard interface for connecting the external modems to computers is called RS-232 interface. Consequently, any external modem can be attached to any computer that has an RS-232 port, which almost all computers have. Some modems come as an expansion board that you can insert into a vacant slot. This type is also called onboard or internal modems.

Network Interface Card

Your network card is also frequently called a Network Interface Card (NIC). Currently, the most common types of NIC used in homes and offices are Ethernet and wireless Ethernet cards. NIC is a hardware which allows your computer to connect through a network or a high–speed Internet Connection such as Local Area Network (LAN), cable modem or a Digital Subscriber Line (DSL).

Digital Subscriber Line (DSL)

DSL is a family of technologies that provide digital data transmission over the wires of a local telephone network. DSL originally stood for digital subscriber loop, although in recent years, many have adopted digital subscriber line as a more

marketing-friendly term for the most popular version of consumer-ready DSL. They are sometimes referred to as last-mile technologies because they are used only for connections from a telephone switching stations.

Integrated Services Digital Network (ISDN)

Integrated Services Digital Network (ISDN) is a circuit-switched telephone network system, designed to allow digital transmission of voice and data over ordinary telephone copper wires, resulting in better quality and higher data speeds than are available with analog. More broadly, ISDN is a set of protocols for establishing and breaking circuit switched connections, and for advanced call features for the user. It allows voice, date, text, graphics, music, video and other source material to be transmitted over existing telephone wires.

Broadband

Broadband Internet access often shortened to just "broadband", is high speed Internet access—typically contrasted with dial-up access over modem. Dial-up modems are generally capable of a maximum bit rates of 56 Kbit/s (kilobits per second) and require the full use of a telephone line whereas broadband technologies supply at least double this speed and generally without disrupting telephone use. In contrast Base band allows only one signal at a time.

Wi-Fi (wireless fidelity)

Wi-Fi is a technology of accessing Internet through Wireless network. A Wi-Fi enabled device such as a PC, game console, cell phone, MP3 player or PDA(personal digital assistant) can connect to the Internet when within range of a wireless network connected to the Internet.

Wi-Fi allows LANs to be deployed without cabling for client devices, typically reducing the costs of network deployment and expansion. Locations where cables cannot be run, such as outdoor areas and historical buildings, can host wireless LANs.