

WWW: World Wide Web

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Abstract- World Wide Web is a global information system where users can easily access and present data in various formats. It is commonly known as Web. Web is a collection of hypertext documents which are accessible through a network, these hypertext documents are called as web pages. A set of web pages is known as website, where the initial web page is termed as home page. These web pages are written in a language known as HTML (Hyper-Text Markup Language); it is completely different from traditional computer languages which is used to mark-up areas to provide web contents in a specific format. Information is shared across web through HTTP (Hyper-Text Transfer Protocol). This paper presents an outline of the subject matter- World Wide Web, its system architecture, characteristics and components of web, its history, working of web, advantages and disadvantages of sharing information using web. It further addresses the types of web and also explains how both the terms web and internet are different from each other. It summarizes the current status and future evolution of www.

Keywords- www, types of web, Wireless communication, components of web.

I. INTRODUCTION

World Wide Web (WWW) simply called as “web” or “www”, is a universal information system. It contains a collection of web pages or websites which are stored on web servers. These websites or web pages contains information in the form of texts, images, audios, videos, etc. Information available on web is public; that means it can be easily accessed across a network with the help of a web browser from anywhere in the world through devices such as laptops, mobile phones, computers, PDA’s, etc. A website is a group of web pages, where the initial web page is called as home page. These web pages are written in a language known as HTML (Hyper-Text Markup Language); it is completely different from traditional computer languages which is used to mark-up areas to provide web contents in a specific format. Information is shared across web through HTTP (Hyper-Text Transfer Protocol). Web pages are interconnected by links called “hypertext” or hyperlinks. These links are clickable words, phrases or images which can be clicked by users to acquire there

desired piece of information quickly. A web page is identified by an online address called a Uniform Resource Locator (URL) which is unique for every resource or data on web. Implementation of web is based on standard client-server model; where the client or the user request information from a web page present on web server using a client-side application called as web browser. Thus, web gives a communication



platform to users for easily sharing and retrieving desired information over a network or internet.

II. CHARACTERISTICS OF WWW

1. **Web is massive and constantly growing-** Information on web is vast and varied. Web contains information on any topic one can think of.
2. **Web has all kinds of data** - structured tables, semi-structured pages, unstructured texts, and multimedia files (images, audios, and videos).
3. **Web has varied information-** because of varied ownership of Web pages, similar information is presented by numerous pages using completely dissimilar words or formats, which makes unification of data from various pages a challenging problem.
4. **Web is linked-** web pages are interconnected through hyperlinks in a site and across many websites. Hyperlinks provides an information organization system.
5. **Web’s information is noisy-** noise arise from two sources. First, a classic Web page has many bits of

information such as major page content, hyperlinks, advertisements, copyright notices, privacy policies, etc. For a specific application, only piece of the information is useful; remaining pieces are regarded as noise. Second, Web has no control over the quality control of information, that means anything can written on webpages; most of the information on the Web is low in quality, incorrect, or confusing.

6. **Web is inconsistent-** Information on the Web changes dynamically.
7. **Web is a virtual society-** It is not just limited to data, information and services but also related to relationship among people, organizations and automated systems.

III. WWW COMPONENTS

1. **Client-** a software or a device which uses services provided by a sever
2. **Server-** a system or a software which provides information or various web resources to clients across a network
3. **Uniform Resource Locator (URL)-**is a unique address given to an accessible web resource or information on web
4. **Hypertext Transfer Protocol (HTTP)-** client requests information from servers with the help of a web browser using HTTP.
5. **Hypertext Markup Language (HTML)-** a language used to mark-up areas to allocate a specific format to contents of web pages

IV. HISTORY OF WWW

World Wide Web was developed by **Tim Berners Lee** in 1989 at **CERN**. World Wide Web came into reality as a proposal by him, to let researchers to collaborate productively and proficiently at **CERN**; in due course it became **World Wide Web**. At present moment internet and hypertext were available but no one had knowledge to use internet for sharing information across a network; thus, Tim introduced three critical technologies[HTML, URL & HTTP] so that computers recognize each other.

World Wide Web Consortium (W3C) is a global organisation which is governed by Tim Berners Lee who is also known as the father of web. Main objective of this organisation is to explore the full capacity of web and to make sure that web develops consistently. This organisation has workers that are collectively and persistently working to upgrade and create web standards.

V. WWW WORKING

Working of www is based on simple client-server model; here web pages and websites are arranged in a hyperlink-based structure. Web pages or websites can be accessed and visualized easily using browsers such as Google Chrome, Mozilla Firefox, Internet Explorer, Netscape Navigator.

Browser displays web pages on client device. When a user clicks a hyperlink present on a web page at a particular server. The browser follows the link by sending a request message to that specific server; Then browser displays the requested web page on client device. Atfirst web browsers were used only used for pursuing web but now they are more used globally.

VI. TYPES OF WEB

1. **SURFACE WEB-** it can be easily accessed by general public using classic search engines. It is used on a regular basis for day-to-day activity search. In this web pages are arranged by usual search engines. It is also known as Visible web or Indexed Web or Clear web.

2. **DEEP WEB-**unlike surface web; in this web pages are not indexed by regular search engines that means web pages are hidden but are not meant for malicious activity. It is also called as Invisible web. To access web pages or websites on deep web; log-in or sign-in credentials are required.

3. **DARK WEB-** inside deep web there are pieces of information or data which is deliberately hidden from being visualized. In this area of web malicious activities are more frequent. More than supporting illegal activities dark web allows people facelessness.

VII. DIFFERENCE BETWEEN INTERNET AND WEB

Many individuals consider that ‘Internet’ and ‘world wide web’ are similar terms; but in reality, Internet and world wide web are completely unrelated terms. Internet joins devices like computers, tablets, mobile phones, etc., across a network whereas world wide web on the other hand joins people.

When an individual is using a website like www.facebook.com or www.google.com ; they are using world wide web as a web page is requested from a specific website on a web server. On the other hand, when an individual is messaging either through chat applications like

WhatsApp or Messenger or emailing through Gmail then they are using Internet.

Internet is a global network of networks. INTERNET is foundation then WWW is a service that runs at the peak of that foundation. First form of Internet is known as ARPANET.

VIII. ADVANTAGES OF WWW

1. Globally accessible from anywhere and at any time for free due to usage of Internet.
2. Facilities of world wide web can be utilized at the comfort of home.
3. Beginning connection is done in very minimum cost.
4. It allows to build professional contacts and public relations in enormous volumes.
5. Boundless access of information from various web sources
6. Cost of information circulation is reduced as there are no restrictions.
7. Various tasks can be done on www like online selling & purchasing, money transferring.

IX. DISADVANTAGES OF WWW

1. Web contains all types of content in which most of the content can be irrelevant, incorrect and full of errors.
2. Hacking, stealing data and identity are the most well-known risks of sharing information online.
3. While exchanging information across a network, there is a huge risk of online virus incorporation.
4. Cookies can summon spams as they contain all information regarding a user's visit on various websites of www.
5. Due to massive information on web there are higher chances of fraud news.

X. CONCLUSION

World Wide Web is a quickly developing field but still there are some improvements need to be done in the structure of www to strengthen security and privacy. Its influence can be seen in almost every known area such as education, technology, sales & marketing, hospitality, etc.

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