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Week 1 Discussion 1

The internet that we all know and love (or at least put up with) is fundamentally an exceptionally sophisticated and complex global computer network. A computer network is at its simplest, a collection of computer equipment that communicates with each other through a wired or wireless Ethernet connection. This network can vary drastically in size from one that only serves only you, a network that connects a few machines in a localized area (Local Area Network or LAN), all the way to a Wide Area Network (WAN), such as the Internet (Woodford, 2019).

The primary job of the internet is essentially to move data from one location to another. This is done through circuit and packet switching. With circuit switching, all of the data is sent at once on a dedicated line, such as a dial up connection, which can take a significant longer amount of time. In packet switching, the data is broken up, sent, and put back together.

Many people may have assumed that the internet and the World Wide Web are one and the same (at least I did); however, the web is just one of many applications that run on the internet, such as your email, chat rooms, web conferencing tools, etc. The World Wide Web is actually a large collection of animation, images, video, text, and other assets organized and groups into websites, which are themselves a collection of individual webpages, the building block of the WWW. The individual webpages on a website can be navigated between one another, or to completely different websites, through hyperlinks (Woodford, 2019)

To actually access the web, you will first need to get an actual internet connection through an Internet Service Provider (ISP). An ISP is the company that provides you with internet service, such as your local cable company, Phone Company, or satellite TV/Internet provider. An ISP can provide you with either broadband internet or a dial-up connection, with the former being faster but more expensive and the latter being slower and relatively inexpensive. A broadband internet connection will generally be delivered by way of cable, Digital Subscriber Line (DSL), or satellite. Once you're able to access the internet, you will need to make use of an internet browser, such as Firefox or Google Chrome to access any of the various websites on the web. This software is what actually reads the information and data from a server, translates the code (such as HTML), and displays the various visual and auditory displays from the webpage. Every single webpage that you access on the web has a webpage address called a Uniform Resource Locator (URL). These pages are stored on a server machine. Servers are specialized machines that will hold vast amounts of data that are accessed by multiple client machines, such as your own person computer. The fundamental difference between an internet server and a client is that a client will make a request and a server will fulfill the request. In a peer to peer (P2P) connection, this role can shift depending on who is sending the data and who is actually receiving it. The information is transferred to your client computer via HTTP or [Hypertext Transfer Protocol](#). The owner of these servers will host your website and provide you with the aforementioned URL (Williams, R., & Tollett, J., 2006)

References

Williams, R., & Tollett, J. (2006). The non-designer's web book: An easy guide to creating, designing, and posting your own web site. (3rd ed.). Berkeley, CA: Peachpit Press.

Woodford, C. (2019, January 18). How the Internet works: A simple introduction. Retrieved June 9, 2019, from <https://www.explainthatstuff.com/internet.html>