Subject: (Assignment 1) Documenting My Internet World

Dr. Levi Perigo :

In today's world, the Internet has become an inseparable part of every aspect of life. The Internet is that empowering factor for every person and every industry to strive towards success. We can find a plethora of devices around us that are constantly connected to the Internet and involved in either seeking or giving information to the Internet.

The Internet, generally regarded as the "network of networks", is the worldwide network of interconnected computer networks that exchange information between the connected devices, by using the TCP/IP protocol suite [1]. These devices can be connected to the internet by wired or wireless means. The wired means of accessing the internet involves physical cables and the wireless access involves communication over the air [2].

Some of the **wired** means of internet access involve the following devices [3] :

→ Cable internet access - using cable modems, initially designed for television signals

→ Digital Subscriber Line (DSL) - using the phone line

→ Optic fibers - offers high data rate

Some of the **wireless** means of internet access involve the following devices [4]:

→ Satellite internet access - using satellite antenna dishes

→ Cell phones - 2G, 3G, 4G

→ Wi-Fi (IEEE 802.11 standard)

Although wired networks provide higher internet access speeds than wireless networks, wireless networks provide the user with the flexibility of mobility within the range of the network [5].

With its multitude of advantages, the Internet is ubiquitous and some of the most exciting areas of its usage are crime detection and immediate notification, improving assistive technology for the disabled, scientific research, cloud storage, online shopping, online education, Internet of Things, and social media. Of these applications of the Internet, I most frequently use *WhatsApp*, a Smartphone application to send messages, share media files, make voice and video calls using the Internet and *Google Maps*, to locate a place on the map and find out routes to travel to that place. Also, the websites I frequent on are *https://www.google.com/*, to search for other websites and get information, and *mycuinfo.colorado.edu*, to access all information about my academics. With these technologies, I can save time by getting a notification when the bus arrives and not wait for it, by shopping online, and by paying bills online. I can also have a video chat with my distant parents using the Internet, connect to people on social media, explore more career opportunities, access all the reading material and submit my assignments.

With a lot of research and advancement in the Internet access technologies, the number of devices connected to the Internet is increasing rapidly [6] and the cloud computing trend also seems increasing [7]. This makes me envision a highly scalable, secure and reliable Internet connectivity than the extant one.

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References:

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