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CSIS 1430

TR 10:00 class

Today it is hard to imagine a world without the internet, it seems we use the internet for everything and like we would be utterly lost without it. Want to stay in contact with someone who lives across the country? Use the internet. Need to finish your holiday shopping or buy something that is not commonly in stores? Use the internet. Need to do a research paper for school? The internet is going to be your best resource. Want to stay current on major world events? It seems a lot of commonly used websites will list them for you. As important as the internet is to the modern world, how many people know its origins? The first time I remember hearing about the internet was in the 1990’s, and it seemed like it went from something that tech nerds played with to something the average person could not live without over the course of a few years. In this paper I will examine the history of the internet, and how it came to be the vital part of the modern world that it is today.

In 1957 the USSR launched Sputnik, the first artificial earth satellite, some in the US were worried about the technological prowess of the USSR, so the US formed the Advanced Research Projects Agency(ARPA) to whose goal was to give the US the lead in military technology. The 1960’s saw many significant advances towards communication over the internet becoming a reality. Such as the first paper on packet switching theory, the first paper discussing online communication, and the first packet switching network with no single outage point. Later on in the 1960’s the ARPA network (ARPANET) design was laid out. The goal was to create a network in which there would be multiple independent networks rather than a centralized network design. This would allow communication could be maintained even in the event of a disaster causing one network to go down. Four major nodes were initially built for the ARPANET, the idea was that if any of the 4 nodes stood, communication cross country could still be achieved. The nodes were strategically placed across the country, including one at the University of Utah.

The 1970’s saw the ARPANET become a reality as 15 nodes and 24 hosts were working, email was modified and quickly became popular amongst its users, and the first international connection was established. This is when the idea of open architecture networking was first introduced which allowed for each network to have a design that was best for its specific need. The major ideas of open architecture were each network would stand on its own, if a packet did not make it to the final destination it would be re-sent from its source, the transmission gateways would hold no information, only transmit the data, and there would be no global control at the operations level.

The 1980’s saw the development of name servers, which no longer required users to know the exact path to other systems. Widespread development of Local Area Networks (LANs), PCs (Personal Computers), and workstations led to further innovation that would pave the way for the technology used by use computers and the internet today. By the end of the 1980’s the number of internet hosts broke the 100,000 mark.

The 1990’s is when the internet really took off for the average user. ARPANET no longer exists, and the world now has the first commercial internet dial-up provider. By 1992 the number of internet hosts broke the 1,000,000 mark. Many of the things we take for granted became a reality in the 1990’s such as online shopping, and the .com boom had arrived.

The 2000’s started out fairly precariously as we had the Y2K panic and a massive denial of service attacks were launched against major websites including Yahoo, Amazon, and eBay. However the internet quickly recovered and continued growing into the juggernaut it is today. The first live distributed musical went out over the internet, and NASA successfully tested the first deep space communications network which was modeled after the internet. By 2001 there were almost 110 million internet hosts.

It seems we live in exponential times, as the amount of information available, the number of web users, and the places we have access to the web seems to have no limit. Today it seems everything can be accessed remotely through virtual machines, hard drive memory is becoming irrelevant so long as a reliable fast connection to the internet is available.

**Resources**

<http://www.internetsociety.org/internet/what-internet/history-internet>

<http://www.zakon.org/robert/internet/timeline/>

[A Brief History of the Internet](http://www.internetsociety.org/internet/internet-51/history-internet/brief-history-internet)  
Written by those who made it history, including Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Lawrence G. Roberts, Stephen Wolff.

<http://www.livinginternet.com/>