

**ADDIS ABABA UNIVERSITY**

**ADDIS ABABA INSTITUTE OF TECHNOLOGY**

**CENTER OF INFORMATION TECHNOLOGY AND SCIENTIFIC COMPUTING**

**DEPARTMENT OF SOFTWARE ENGINEERING**

**ASSIGNMENT 1: HISTORY OF INTERNET ASSIGNMENT**

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1. **History of Internet**

The Internet is at once a world-wide broadcasting capability, a mechanism for information dissemination, and a medium for collaboration and interaction between individuals and their computers without regard for geographic location.It has revolutionized the computer and communications world like nothing before.

The first recorded description of the social interactions that could be enabled through networking was a series of memos written by J.C.R. Licklider of MIT in August 1962 discussing his “Galactic Network” concept. He envisioned a globally interconnected set of computers through which everyone could quickly access data and programs from any site.

The Internet had its roots during the 1960's as a project of the United States government's Department of Defense, to create a non-centralized network.

This project was called ARPANET (Advanced Research Projects Agency Network),

created by the Pentagon's Advanced Research Projects Agency established in October 29, 1969 to provide a secure and survivable communications network for organizations engaged in defense-related research.

ARPA brought Larry Roberts, an old friend of Kleinrock's MIT, to manage the ARPANET project. Roberts turned to the work of British computer scientist Donald Davies and American Paul Baran for the data transport techniques they had invented.

He based the network on a brand-new concept called packet-switching," and thanks in large part to this choice, the ARPAnet would eventually morph into the modern internet.

ARPANET delivered its first message: a “node-to-node” communication from one computer to another. (The first computer was located in a research lab at UCLA and the second was at Stanford; each one was the size of a small house.) The message—“LOGIN”—was short and simple, but it crashed the fledgling ARPA network anyway: The Stanford computer only received the note’s first two letters.

In order to make the network more global a new sophisticated and standard protocol was needed. They developed IP (Internet Protocol) technology which defined how electronic messages were packaged, addressed, and sent over the network in the 1970s.

In 1973, Robert Kahn and Vinton Cerf [collaborate to develop a protocol](https://georgewbush-whitehouse.archives.gov/government/cerf-kahn-bio.html" \t "https://online.jefferson.edu/communications/internet-history-timeline/_blank" \o "Dr. Vinton Cerf and Dr. Robert Kahn: Medal of Freedom Recipients) for linking multiple networks together. This later becomes the Transmission Control Protocol/Internet Protocol (TCP/IP), a technology that links multiple networks together such that, if one network is brought down, the others do not collapse. While working at Xerox, Robert Metcalfe develops a system using cables that allows for [transfer of more data over a network](http://www.biography.com/people/robert-metcalfe-9542201" \t "https://online.jefferson.edu/communications/internet-history-timeline/_blank" \o "Robert Metcalfe Biography). He names this system Alto Aloha, but it later becomes known as Ethernet.

The standard protocol was invented in 1977 and was called TCP/IP (Transmission Control Protocol/Internet Protocol). In 1982, the PhoneNet system is established and is connected to ARPANET and the first commercial network, Telenet. This broadens access to the internet and allows for email communication between multiple nations of the world.

ARPANET adopted TCP/IP on January 1, 1983, and from there researchers began to assemble the “network of networks” that became the modern Internet. TCP/IP allowed users to link various branches of other complex networks directly to the ARPANET, which soon came to be called the Internet.

Internet usage has exploded since 1995, when researchers first started tracking this statistic. Although estimates vary from the Internet having 1 billion to 1.5 billion users, everyone agrees that the Net has room for growth as the worldwide population tops 6 billion. we are now experiencing the fourth scientific revolution.

# **Reference**

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