# History of the Internet [The Evolution]

J.C.R. Licklider of Massachusetts Institution of Technology (MIT) wrote the first recorded description of social interactions through networking in August 1962. He envisioned n interconnected computers in which anyone could access data from any sites.

Starting from October 1962, Licklider was the head of the computer research program at the U>S Defence Advanced Research Projects Agency (DARPA). He convinced Ivan Sutherland, Bob Taylor, and Lawrence G. Roberts at DARPA on the importance of networking.

The first paper on packet switching theory (1961) and the first book on the subject (1964) were written by Leonard Kleinrock from MIT. Kleinrock convinced Roberts of the communication using packets rather than circuits. In 1965, Roberts working with Thomas Merrill and connected the TX-2 computer in mass to the Q-32 in California with a low speed telephone line creating the first wide-area computer network.

In 1966, Roberts went to DAPRA and developed the concept of computer network and organized his plan for the “ARPANET” and published it in 1967. It came to Roberts’s attention that there was also another paper on packet network concept from NPL by Donald Daveis and Roger Scantlebury. There was also work done on distributed networks and pocket switching for secure voice by RAND Corporation.

In 1968, ARPANET’s structure and specifications was refined and the RFQ was released by DARPA for the development of the packet switches called Interface Message Processors (IMP). Bolt Beranek and Newman (BBN) won the RFQ and worked on the IMP by the team, the architectural design by Bob Kahn, the network topology and economics by Roberts and Howard Frank and his team at Network Analysis Corporation and the network measurement system by Kleinrock’s team at University of California, Los Angeles (UCLA).

In September 1969, Kleinrock’s development was selected to be the first node on the ARPANET and BBN installed the IMP at UCLA and the first host computer was connected. At Stanford Research Institute Doug Englelbart’s on “Augmentation of Human Intellect” provided a second node. A month later, the first host to host message was sent from Kleinrock’s laboratory to SRI due to the connection of SRI to ARPANET. By the end of 1969, four host computers were connected and it got internet off the ground. Other computers were added and completed host t host protocol.

In December 1970, the initial ARPANET, which was also called Network Control Protocol (NCP), was finished by Network Working Group (NWG) working under S.Crocker.

In October 1972, Khan demonstrated ARPANET successfully at the International Computer Communication Conference (ICCC). Also, electronic mail was introduced and Ray Tomlinson wrote the software for sending and reading and Roberts wrote the first utility program to list, selectively read, file, forward, and respond to messages.

After khan think about internet and internet protocol/TCP, in 1973, khan asked Vint Cerf to work with on the design of the protocol. The first version was distributed at a meeting of the International Network Working Group (INWG) which was set up at a conference at Sussex University.

The early implementation of TCP was done in sharing system such as Tenex and TOPS 20.

In 1974, the first internet provider was born.

In 1976, kleinrock published the first book on the ARPANET to spread the influence packet switching networks.

In 1981, a grant was provided by The National Science Foundation (NSF) to provide network to universities.

Starting from January 1, 1983, ARPANET protocol changed from NCP to TCP/IP. By 1985, internet was well established as a technology. Also, the Domain Name System (DNS) formed .gov, .com, .org, .edu, .net, etc. for naming websites.

In 1984, the term “cyberspace” was used by William Gibson.

In 1885, the first registered domain became the website for Symbolic Computer Corp. in Massachusetts.

In 1986, The National Science Foundation’s NFSNET goes online to connected supercomputer centres at 56,000 bits per second. After a while, the speed of network increased and research and educational network connected NFSNET.

In 1987, over 20,000 hosts used internet.

In 1990, Hyper Text Mark-up Language was developed by Tim Berners-Lee from European Organization for Nuclear Research. In 1991, European Organization for Nuclear Research introduces World Wide Web.

In 1992, the first video and audio was distributed. In 1993, the White House and United Nations goes online in addition to 600 websites. Microsoft host a web browser for Windows 95 and Yahoo which was originally called “Jerry and David’s Guide to the World Wide Web” was created by Jerry Yang and David Filo at Stanford University in 1994.

In 1995, amazon.com, eBay, Match.com goes live. In 1997, Netflix is founded by Reed Hastings and Marc Randolph.

In 1998, the Google search engine was created. And the Internet Protocol version 6 was introduced. It has 3.4 \* 1038 unique addresses.

In 2001, Napster was shut down because the users share copyrighted materials.

In 2003, SQL Slammer worm distributed worldwide, WordPress is launched.

In 2004, Facebook goes online, Mozilla Firefox browser was hosted.

In 2005, YouTube.com launches, Reddit was founded.

In 2006, Twitter launches developed by Jack Dorsey.

In 2010, Pinterest and Instagram are launched.

In 2013, Edward Snowden, a former CIA employee reveals that the National Security Agency (NSA) had a monitoring program capable of tapping the communication of people.

In 2016, Google announces a voice activated personal assistant program. Google joins Amazon’s Alexa, Apple’s Siri, and Microsoft’s Cortana.