

The Invention of the Internet

Idea behind the internet was envisioned by a psychologist professor at MIT named **J.C.R Licklider**. His vision was that computers would allow people to communicate better which in turn would allow them to aid in the sharing of information among people. In **1960** at MIT, a student named **Leonard Kleinrock** showed how packages of data would queue or queue up at nodes of a communications network as they transited through by applying Queuing Theory to data transmission like letters going through post offices. This is known as Packet switching.

Although telephone networks were used heavily that time, but they had a issue of disconnection if the path between the connection brakes off. This issue became a major security issue as well. This is where, the packet switching comes into the picture. Instead of sending data as one big stream, it cuts it up into pieces.

Then it breaks down the packets of information into blocks and forwards them as fast as possible and in as many possible directions, each taking its own different routes in the network, until they reach their destination. And that's how a network is designed.

Larry Roberts, an American engineer who had built the world's first experimental connection between two computers came up with the idea of sitting on a network and be the gateway to the interface. These gateways were called **Interface message processors(IMP)**. And these IMPs became the foundation of **ARPANET** (Advanced Research Projects Agency Network)

In April 1971, the ARPANET had 18 mainframe computers hooked into the network. At first there was not much to do beyond transferring data files among its members. **Ray Tomlinson** sends the first email, introducing the @ sign as a way of separating a user's name from the name of the computer where their mail is stored

The rise of these networks led to the problem where the networks would only be private to themselves and had no ability to access any exterior networks. This led to the need for a Standardization of networks that came with TCP IP protocol and gateways allowed for different networks to interface with each other. Another motivation was on June 4th, 1992 the internet became public instead of government owned and Bernese Lee created the *World Wide Web* (WWW) which made it easier for your average person to browse the internet.