Since the dawn of modern computers, the rapid digitization and growth in the amount of data created, shared, and consumed has transformed society greatly. In a world that is interconnected, change happens at a startling pace. Have you ever wondered how this connected world of ours got connected in the first place?
Information technology has been around for a long, long time. Basically as long as people have been around! Humans have always been quick to adapt technologies for better and faster communication.

There are 4 main ages that divide up the history of information technology but only the latest age (electronic) and some of the electromechanical age really affects us today.

1. Pre-Mechanical

The earliest age of technology. It can be defined as the time between 3000 B.C. and 1450 A.D. When humans first started communicating, they would try to use language to make simple pictures – petroglyphs to tell a story, map their terrain, or keep accounts such as how many animals one owned, etc.

Petroglyph in Utah

This trend continued with the advent of formal language and better media such as rags, papyrus, and eventually paper. The first ever calculator – the abacus was invented in this period after the development of numbering systems.
2. Mechanical

The mechanical age is when we first start to see connections between our current technology and its ancestors. The mechanical age can be defined as the time between 1450 and 1840.

A lot of new technologies were developed in this era due to an explosion of interest in computation and information. Technologies like the slide ruler (an analog computer used for multiplying and dividing) were invented in this period.

Blaise Pascal invented the Pascaline, a very popular mechanical computer capable of adding, subtracting, multiplying, and dividing two numbers. Initially called the arithmetic machine, it was granted a royal privilege by King Louis XIV of France in 1649.
3. Electro-Mechanical

The electromechanical age heralded the beginnings of telecommunications as we know it today. This age can be defined roughly as the time between 1840 and 1940.

Several revolutionary technologies were invented in this period such as the Morse code, telephone, radio, etc. All of these technologies were crucial stepping stones towards modern information technology systems.

The first large-scale automatic digital computer in the United States was the Harvard Mark 1 created by IBM in 1944. This 8ft x 50ft x 2ft big computer weighed a whopping five tons and had to be programmed using punch cards. Its first use was by the Manhattan Project to simulate the feasibility of an implosion to detonate an atomic bomb.
4. Electronic

These machines used electronic switches, in the form of vacuum tubes, instead of the electromechanical relays seen in the previous era. In principle the electronic switches would be more reliable, since they would have no moving parts that would wear out, but the technology was still new at that time and the tubes were comparable to relays in reliability. The major benefit of electronic switches was that they could ‘open’ and ‘close’ thousands of times faster than relays.

ENIAC Being Programmed (1940’s)

ENIAC (Electronic Numerical Integrator and Computer) was the first electronic general-purpose computer. It could solve a large class of numerical problems through reprogramming. Although it was designed and primarily used to calculate artillery firing tables for the United States Army's Ballistic Research Laboratory, its first programs included a study of the feasibility of the thermonuclear weapon.
Information Age and the Internet

The information age, made possible by the advent of electronic computers, is characterized by the shift from traditional industry to an economy based on information digitization. The onset of the Information Age is associated with the Digital Revolution, just as the Industrial Revolution marked the onset of the Industrial Age.

The Internet, synonymous with modern IT, was conceived of as a fail-proof network that could connect computers together and be resistant to any single point of failure. Because of decentralization, the Internet cannot be totally destroyed in one event. If large areas are disabled, the information can be easily rerouted. Its initial software applications were e-mail and computer file transfer.

Though the Internet itself has existed since 1969, it was with the invention of the World Wide Web in 1989 by British scientist Tim Berners-Lee and its introduction in 1991 that the Internet became an easily accessible network. The Internet is now a global platform for accelerating the flow of information and is pushing many, if not most, older forms of media into obsolescence.