

HISTORY OF COMMUNICATION: From CAVE DRAWINGS TO CELL PHONES...

All animal species have perfected a system of communication, but humans are the only species capable of spoken language. Effective communication is essential for a variety of reasons. It serves to inform, motivate, establish authority and control, and allows for emotive expression. For humans in particular, communication is also vital for creating a sense of social cohesion. Just as mankind has evolved over the centuries, our means of communication have followed suit. What began as primitive cave paintings and signed language has morphed into an endless variety of ways to express oneself to other humans.

Early Communication Methods

Communication has existed in various forms since man appeared on Earth. The methods, however, consisted of a disorganized set of signs that could have different meanings to each human using them. It wasn't until three million years after man's debut, around the year 30,000 B.C.E, that communication began to take on an intentional, manufactured format. The most well-known form of primitive communication is cave paintings.

Other forms of early communication existed, although they were less popular for a variety of reasons. Story telling was used to pass on important information in the days before the existence of the written word. However, since man still lived in separate tribes, this information could not be applied outside one's own tribal community. Drums and smoke signals were also used by primitive man, but were not the most practical means of communicating. Both methods could attract unwanted attention from enemy tribes and predatory animals. These methods were also difficult to standardize.

Telegraph

Evolution of all things, communication included, involves the desire to perform tasks more quickly and efficiently. This desire was realized with the invention of the telegraph. The logistics of telegraphic communication involve the sending of electrostatically-generated signals through a wire. The system involves three main components- a battery to supply the electricity, a key used to complete or break the circuit, and an electromagnet at the receiving end which consists of a wire that pulls on a piece of metal when electricity passes through it. Attributing the invention to a specific person is a subject of hot debate. In America, the telegraph is attributed to Samuel F.B. Morse, but his 1837 version was far from original. An Englishman by the name of William Watson had devised a way to send messages via telegraph in 1747.

The revolution of the telegraph allowed for instant communication across long distances, something that had previously been unheard of. The technology was particularly useful during wartime to transmit pertinent information, and the first telegraph stations were set up along railroads as the necessary poles were already erected. The telegraph was also popular among the Victorian set. Those of the upper class used the telegraph for personal communications, but those of lower economic status were excluded from the technology due to the cost involved in sending a telegraph.

Telephone

Today we take the ability to use a telephone for granted, but in 1876, Alexander Bell was busy realizing a dream that he hoped would once again revolutionize communication. Like all inventors, Bell was perpetually curious and always on the lookout for empirical evidence of the new and interesting. Bell observed that sound vibrations could be transmitted through the air, and received at the same pitch in another room. Bell wanted to transfer sound and pitch across a wire, and ascertained that this would be possible by reproducing sound waves in a continuous, undulating current. Once proving this theory, Bell realized the same concept could be applied to human speech as it is composed of many complex sound vibrations. A few trial and errors later, and the modern telephone was born. Given our reliance on telephones today, it is surprising to know that Bell's invention was initially quite unpopular. The telephone did not generate nearly as much excitement as the telegraph had a few decades earlier. This may have been due to the fact that Americans love novelty, and Bell's concept was not entirely new. The telegraph had cornered the long-distance contact market. The lack of popularity may also be attributed to the cost of telephone service. Most original telephone service subscribers were corporations as a year of service cost \$72. Residential service cost a family approximately \$60 per year. In the 1800's, this was a substantial sum of money to be spent on an unnecessary device.

Radio

During the early 1900's, a new form of communication and entertainment took the world by storm. What began as short-wave communication used during WWI blossomed into the hottest communication technology of the era once the war had ended. Amateur broadcasting began around 1914, commercial broadcasting didn't hit the air waves until 1920. Radio was unregulated until 1925 when the Federal Communications Commission stepped in. At this point, approximately 2 million homes had radios and there were several hundred stations broadcasting thousands of programs. The technology advanced so fast that new radios were obsolete within 3-6 months.

Radios were incredibly popular during the late 1920's and early 1930's due to the Great Depression and also the "flapper" movement. The American people loved to dance, and most other forms of entertainment were too expensive. The technology really took off in 1933 when Edwin Armstrong, "the father of FM radio", invented frequency-modulated radio. By the 1940's, the number of radios in American homes had doubled, and 800,000 FM receivers were produced in 1947.

Cell Phone

It may be hard to believe but the first cell phone research began in 1843 when Michael Faraday conducted research to see if space could conduct electricity. Fast forward to 1973, and Dr. Martin Cooper is credited with inventing the first portable handset. Four years later, cell phones go public. In the 37 years the cellular phone industry has existed, the market has grown from \$3 million annually to an industry that commands \$30 billion annually. The customer base has also expanded from an initial trial population of 2000 to more than 60 million cellular phone owners in the United States.

Who uses cell phones? Everyone! Cell phones can be found everywhere in modern America. Landlines are slowly becoming obsolete as everyone from senior citizens to elementary school students acquire their own cell phones. The convenience of having a phone at the ready is a concept that is very easy to market, but the fact that higher stress rates have been linked to this phenomenon of constant contact is a commercial you won't be seeing anytime soon.

Communication is necessary for the survival of the human race, but have we taken it too far? Love it or hate it, communication technology is here to stay and will only continue to expand in the future. Where will it go from here?