

# History of Communication From Cave Drawings To The Web

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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. The artistic endeavours were created by a species of man that appeared around 130,000 B.C.E, the homo sapiens. The method involved creating pigments made from the juice of fruits and berries, coloured minerals, or animal blood. These pigments were then used to create depictions of primitive life on the cave walls. The purpose of the paintings has been questioned by scholars for years, but the most popular theory states that the depictions were used as a manual for instructing others what animals were safe to eat.

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.

**Early Handwritten Documents/Books** Those with the proper education to do so were handwriting books and documents for well over 1,000 years before the invention of the printing press. The word "manuscript" is derived from the Latin term "libri manu scripti" which translates to "book written by hand". Most handwritten manuscripts were written on vellum as paper was not widely available. The majority of books and documents written were of a religious nature. This was due to the fact that writing a religious piece was viewed as a form of worship, and also that most books were written by monks in monasteries. Literacy rates were incredibly low during the time of handwritten books, and few citizens had time for pleasure reading. Only the monks and the very wealthy were given the opportunity to become literate. Two important periods stand out when one is investigating early books. The time between the 7th and 13th centuries was considered the age of the religious manuscript. The 13th century, however, brought about exciting change in the realm of the written word. For the first time, secular books were produced for the sake of spreading knowledge not relating to religion. The catalyst for this change was the rise of universities in Italy, and the return of the crusaders from Byzantium. The Renaissance had begun.

**Printing Press** In 1448, a man named Johann Gutenberg revolutionized the way books were made forever. An inventor born in Germany, Gutenberg had a vision of a device that would utilize movable type using blocks with pre-printed text. This method, combined with the use of paper, ink and a printing press allowed for books to be mass-produced, and greatly reduced the price. Gutenberg made his first device by adapting a wine press to remove the water from paper after printing. Gutenberg's initial project with his new invention was a reprint of a Latin speech book. When this was a success, he embarked on his most famous printing project- the printing of the Gutenberg bibles. His were the first bibles printed in Europe. Gutenberg's invention took a while to catch on as the bourgeoisie of the day still wanted to keep the peasants uneducated.

**Letter Writing and the Postman** Letter writing has been a means of communication for centuries. However, it was an inefficient means of communicating as one had to wait until another person was traveling before their letter could be sent. In addition, there was no guarantee when, or if, the letter would ever reach its destination. Given that most people never travelled more than 50 miles from the place of their birth until fairly recently, the need for an organized postal system was not a top priority for any country. As with all things, a project will not be funded if it is not deemed necessary. Enter the United States circa 1775. Ours was a nation with a rapidly expanding population and territory. The first United States Post Office was created in 1775, and Benjamin Franklin was named the first Postmaster General. The system caught on quickly and rapidly expanded. By 1828, the United States had 7,800 post offices which made it the largest postal system in the world. Mail was transported primarily by train, which ran on a schedule and was efficient and reliable. Letter writing also gained popularity as more Americans moved out west and wanted to keep in touch with loved ones back east.

**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.

### **Photography**

A picture is worth 1,000 words, or so the saying goes. Unlike other forms of communication photography is a more subjective form of art. A picture can be interpreted a million different ways by a million different individuals, whereas other forms of communication tend to be intent on conveying one message. Most people love to be photographed and man's vain desire to depict himself has been apparent since the discovery of the first cave paintings. Capturing an image of the self guarantees a place in history for that individual. They are sure to be remembered even after they have passed away. The first attempts at photography began in the early 1800's but had poor results. The discovery of using reverse colours, what we today call a "negative", greatly advanced the art of photography.

The process of how a photo was taken and developed remained largely unchanged for 150 years until digital technology caught up. These days a piece of equipment that was once used only by professional photographers is accessible to everyone. There are several varieties of cameras to choose from at any electronics stores, and even cell phones have cameras! Regardless of how much the technology of communication continues to advance over the years, the photo will always hold a special place in history as the pioneer of capturing the human image for eternity.

### **Television**

Television made its official debut at the 1939 New York World's Fair. It was seen as an amusing, but unnecessary, appliance and the radio continued to be the favoured form of communication. Radio's popularity sky rocketed at the start of WWII as televisions were not yet equipped to provide accurate and timely news. All that began to change in the late 1940's. Four million TV sets were produced that year, but a 10-inch screen set cost over \$200 making it an unattainable luxury for many families. As the years passed, prices for televisions dropped and now the majority of homes have at least one television. It is safe to theorize that few forms of communication have had as large an impact on society as television. What was once a luxury item, is now an essential. Ours is a global society obsessed with television. Humans are reliant on their televisions for constant entertainment. Even the

news, which was once taken very seriously, has been turned into cheap entertainment by many networks. The repercussions of this reliance on television may not be realized for many years, but they will eventually surface.

### **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.

**Internet** The original Internet was invented in 1967 for military purposes. An Internet in its most basic form is simply a group of computers able to connect to each other and share information. This included electronic mail (email) and the use of sites containing vital information (websites). Once the Internet started to catch on it was used primarily by corporations for collaboration purposes. Today the Internet is available everywhere and to everyone. It is used for a variety of reasons including socializing, conducting research, and advertising. It has even surpassed the television as a source of communication because you can receive any information you want instantaneously. One click of a button and a website will load with whatever information you have requested.

**Social Media and Blogging** Social media defined is a special class of websites designed to meet three specific criteria. These criteria include-the majority of the content on the site is user generated, there is a high level of interaction between social media website users, and the websites are easily integrated with other websites. One of the most popular social media platforms is blogging. A weblog or "blog" was first developed in 1997. A blog makes it possible for any person with Internet access to create a type of website without having to be familiar with any form of HTML coding that is generally necessary to create a website. Blogs are replacing journals as a form of self expression for many young people today. Social media and blogging have had a significant impact on personal and professional relationships. Reputations have been made and destroyed with a few keystrokes. Yet, having a web presence is vital in today's society and economy. Does your company want to market a product to young adults? You can find them on the Internet. Do you want to increase your popularity, and see and be seen? Create a social media site devoted exclusively to yourself. The social lives of many young people today revolve around social media and blogging, and this isn't necessarily healthy. You lose a sense of reality when all of your communication is conducted electronically.

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.