History of communication before and after the discovery of radio waves



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# **History of communication**

Before the discovery of radio waves, telegraphy had been developed as a means of communication. Telegraph meant "long-distance writing" in Greek. Earlier means of communication included smoke signals, torch signaling, heliographs (flash mirrors), and signal flags were used to convey message over distance (Crowley & Heyer, 2002; Farnham, 2005). In the 18th century various methods of communication came into use. They were mainly used in the military arena during the French revolution and the Napoleonic wars. This period marked the development of the first optical telegraph system. By the mid 1800s this system covered about 5000 km and involved more than 550 stations (Farnham, 2005).

In the Late 1800s first radio signals were sent across the English Channel.

During the titanic disaster, the challenges of unresponsive ineffective radio operators were witnessed. This led to the enactment of Radio Act of 1912.

This required that at least two radio operators be on board all vessels carrying more than 50 passengers, and at least one operator be on duty in the Marconi room all the times while the vessel was underway (Farnham, 2005).

The 1912s marked the development of radio telephony, or voiceless communication using radio waves in safety and military communications. During this period, the development of amateur radios was taking place in countries with this technology. Amateur radio operator, Hiram Percy Maxim came up with what is now known as the American Radio Relay League (ARRL) whose role was to set up a voluntary network of associated radio amateurs to facilitate the long-range relay of "radiograms". The reliability and accuracy of relaying messages through such means was very important for military, commercial and public services (Farnham, 2005).

Microfinance is the practice of making small loans to farmers or business owners too poor to provide collateral.

The research could help lenders establish more successful microfinance operations. Details are published in the Journal of Development Economics.

"What this helps us do is better understand which microbanks are successful throughout the developing world-and why," says Christian Ahlin, associate professor of economics at Michigan State University.

The microfinance movement has exploded during the past two decades,
Ahlin notes, with more than 100 million customers now borrowing small
loans from more than 10, 000 microfinance institutions around the world.

The movement was thrust into the spotlight in 2006 when Grameen Bank, a Bangladesh microbank, and its founder, Muhammad Yunus, were jointly awarded the Nobel Peace Prize.

Ahlin and colleagues from New York University and the University of Minnesota examined the experiences of 373 microbanks worldwide. Because borrowers of microloans typically are third-world farmers or operators of tiny businesses in rural, isolated settings, it wasn't clear how they are linked to the larger economy, he says.

Ahlin was surprised to find that as the larger economy grew, the microbanks' profit margins grew as well, nearly one-for-one. For example, if the economic growth rate increased 5 percent, a typical microbank's profit margin went up by 5 percentage points.

"The finding of this study is not that context is everything, but that it does help explain significant differences in performance of the microbanks," Ahlin explains.

Microbanks generally grow more successfully in countries with less of a manufacturing base, such as Nigeria and Mongolia, as opposed to more industrialized nations such as China and Indonesia. Ahlin says this is likely because manufacturing jobs tend to crowd out the more entrepreneurial-related jobs supported by microloans.

The researchers also say that better developed governing institutions can impact microfinance business negatively by driving up costs, for example,

suggesting that borrowers may benefit from a hands-off regulatory approach.

Finally, microfinance institutions generally cover costs more easily in countries with a per-capita income of about \$6, 000-countries " that are not too poor, but not too rich either," Ahlin says.

In extremely poor countries, he says, there may be a lack of education to run a microenterprise and little demand for goods beyond basic food and medicine.

But that doesn't mean lenders should steer clear of the most impoverished nations, Ahlin points out. On the contrary: The research findings could help support the case for more sustained donor support of microfinance in those areas.

" Although covering costs internally may be harder," Ahlin says, " the impact could be greater in these poorer countries."

#### Communication in the Cold War

#### Introduction

Cold war was a period between 1945 and 1991 involving the conflict between the United States and the Soviet Union. It was over the military might, often characterized by the struggle between capitalism and communism. Communication played a vital role in cold war, mostly in the use of various means to convey propaganda (Crowley & Heyer, 2002; Jenks, 2006). The historical account of the mass media influence on the population has a very negative background. As pictured by Taylor (1997), "the blind are

leading the blind ... sleaze and sophistry have triumphed over sophistication and subtlety" and biased presentation of foreign news has resulted in "serious distortion and misunderstanding" (pp. 1). The application of technology in global communications played a fundamental role especially during cold war. As indicated by Taylor (1997), the cold war created an environment that "prompted new rules ... in which the control, manipulation and dissemination of information ..." (pp. 28) became very essential. The United States was committed to freedom of information in their transaction with other nations in an attempt to win their support. With time technological advances from radios, through the television to faxes, satellites and e-mails changed the initial perceptions (Taylor, 1997).

#### Communication during the cold wars

Before the United States involvement in the Second World War in 1940, the ARRL established an Emergency Corps that trained on frequencies not initially used by casual amateurs. Up to this day military radio system has involved the training of personnels and continued tests. The cold war reached its greatest heights in 1952. During this period, Radio Amateur Society was formed under the effort of the Civil Defense. This development and many others were as a result of the recognition of the essence of disaster and emergency communication. In the cold war period, transistors and integrated circuits were also invented. It also saw the improvement of frequencies from the lowest to microwaves (Farnham, 2005).

By 1945 the debate was still ragging on whether the United States should continue with its broadcasting via the Voice of America (VOA) after the end of the Second World War. It was viewed by many as a weapon of war hence https://assignbuster.com/history-of-communication-before-and-after-the-discovery-of-radio-waves/

could not be part of foreign policy. The government was however hesitant in abolishing the VOA. On the other hand, the Soviet Union continued with their intention of extending their coverage to most parts of Eastern Europe. Their enmity with the United States prompted the continuation of VOA expansion to integrate the Russian language in 1947. This was out of the United States' optimisms that radio would be successful in penetrating the communication barriers experienced during the World War II. By 1949, the Americans were under extreme fear over the infiltration of communists in the United States. That year saw the enactment of the Central Intelligence Agency Act by the Congress. Besides, the establishment of the CIA, this act enabled the setting of a new radio service as a project for public diplomacy. National Committee for a Free Europe organization was also established to address the plight of exiles from Eastern Europe. Funded by the CIA, this organization established Radio Free Europe (REFE) in 1950, beginning its broadcast in July of the same year from Germany. Another radio targeting the Soviet Union (Radio Liberty or RL) was created by a similar organization of exiles. Since it was also broadcasting from Germany, the RL signal faced constant jamming by Soviet leaders from its inception. Jamming was a technology used by the Soviet Union to interfere with the radio transmission (Parsons, n. d).

## Computing in the Cold War

It is commonly believed that war influences the rate of technological development. This is probably true in the arena of computing. Many earlier machines such as the ENIAC and the Mark I for instance were invented for military calculations. It is however believed that the cold war promoted the greatest advances in computing (I-Programmer, 2010).

The computer was very important in for gathering and processing information about the enemy's whereabouts. An example is the SAGE (Semi Automatic Ground Equipment) computer system used by the United States to track any movement in the sky, to send signals of any nuclear attack. In 1940s, the Whirlwind computer, the fastest model available was built at MIT. Although not understood by many, Whirlwind computer was an important tool for flight simulations. In 1945 the Air Defense Committee was formed. It recommended the need for integrating the radar system in the newly invented computers. The radar was important in detecting airborne objects and the computer monitored and verified the objects to ensure that they familiar (I-Programmer, 2010).

This was an important step since both computer and the radar system were new technologies which whose impact were unimaginable in the first place. It was quite ambitious to think of the interconnection of a radar network stations and central computer data processing in the absence of a modem. Mass storage devices, graphical visual display unit and computers were still made of valves. In 1951g, the Project Lincoln research was initiated to develop the new system with the supply of computer hardware (Whirlwind I) and data communications from the Air Force Research Laboratory (CRL) (I-Programmer, 2010).

## Cold War Propaganda

In the early period of the cold war, the British government established a voluntary civil defense with the objective of protecting the nation from the enemy in case of attack. The civil propaganda was successful in mobilizing many people to participate in the war (Jenks, 2006). During the cold war both https://assignbuster.com/history-of-communication-before-and-after-the-discovery-of-radio-waves/

the United States and the Soviet Union were involved in propaganda. In the period of the Red Scare, characterized by mass hysteria over communism, the United States government perpetuated this hysteria in movies, comics, books and even lessons in schools. It was mostly focused against communism reign. The use of propaganda had negative impact on the population. Both the America and the USSR used propaganda to instill hatred of their enemies in their citizens and also to ensure that the citizens would fully support the government. The two countries used different media for conveying their propaganda. The Soviet Union used military prowess to impress their citizens while America relied on Hollywood and the media. The result of the propaganda was the victimization of many employees in the government and Hollywood. For this reason many innocent people were caught in between the wrangles and suffered ruined lives as a consequence (Kerrington, 2007).

The electronic medium commonly in use that time was the black and white television. Although quite costly, many could still afford one. The use of television opened a fresh page in the propaganda war. It was used to dispel fear that the Soviet Union was on the wrong side. It promoted the idea that white Americans were superior over the other races and there could easily be victorious over the Soviet Union (Hudson & Stainer, 1997; Kerrington, 2007).

Another form of the media in America in that period was the radio. While not everybody could afford the television, everybody at least had a radio. It was a symbol of family union since most members of the family could gather around it at dinner session to listen to news briefings or their favorite https://assignbuster.com/history-of-communication-before-and-after-the-discovery-of-radio-waves/

programs. It was quite valued and people took extra care to maintain it. It was the best way to reach the vast population. The united p states government took the initiative to perfect the broadcasts. The government invested largely in the Voice of America which enabling broadcast to reach the Philippines, Germany and Japan. Movie theaters were flocked by people of all ages as relief from the worries of life (Hudson & Stainer, 1997; Kerrington, 2007).

The propaganda reached its greatest height especially in the wake of Senator McCarthy's leadership. Films were used to convey the idea that the Soviet Union was going to win unless the patriotic Americans determined to wipe out communism. It would portray the importance of upholding the traditional values advocating for goodness over evil in the attempt of defeating the enemy. Some movies focused on highlighting the negative side of communism. Such movies received a lot of financial support from the government. Examples include the "Red Nightmare", nowadays referred to as "The Commies Are Coming", and the "Invasion USA!" presently these types of movies lack the impact they had during the cold war, they are even taken as comedies in most occasions. Initially, they drew a lot of seriousness and they were even integrated in the curriculum of civics and history in schools. Some such as the James Bond movies are presently still enjoyed (Kerrington, 2007).

People could also be exposed to propaganda through literature. Several fiction novels, the paperback novels, and comics were used to propagate anti-Soviet or communism ideologies. They were readily available due to their low cost. These novels depicted the heroic actions of the cowboys in https://assignbuster.com/history-of-communication-before-and-after-the-discovery-of-radio-waves/

their rescue missions. On the other hand, the non-fictional books were also extremely biased negatively depicting the threat posed by communism. The comics, focusing mainly on the young generation were aimed at inculcating hatred for the communists. Communists were also not allowed to express their idea freely; they were prevented from teaching in colleges and at secondary level. As a result many people lost their jobs because of such stance (Kerrington, 2007).

Soviets were not exempted from propaganda. They also had radios, literature and films. Their form of propaganda involved the demonstration of e military might by constantly holding military marches. These were used to remind the public that their army was the most invincible. Stalin propagated his against the Americans via the radio, always insisting that communists should uphold their togetherness. The Americans were painted as racists, sexists, treacherous and indifferent to others. In Stalin's perspective the Americans were ignorant, and America faced probable defeat. Unlike the American methods, Stalin's methods of propaganda were more direct. They were also equally successful (Kerrington, 2007).

### **Conclusion**

Communication played greatly defined the cold war. Various means of communication such as the televisions and radios were used by both parties of the conflict to marshal civilian support against their enemies. As portrayed above this period was marked by the distortion of foreign reporting, issuance of threats, and accusations which were only made possible via the mass media.