THE COMMUNICATIONS WAR: RADIO, TELEPHONY AND FILM

Julia Dobies, Julia Bober, Zuzanna Walczyńska, Martyna Łukasiewicz, Walawska

Anastasiia Zhuzhevych, Olesya Poluyko, Ula Kolińska, Ola Tomczak, Zuzanna Fryza, Martyna Kalembasa

Maria Zaręba, Anna Sekunda, Maja Kalbarczyk, Julia Bzówka

SPIS TREŚCI

THE HISTORY AND DEVELOPMENT

OF THE RADIO

HISTORY OF THE RADIO

Radio was invented by Guglielmo Marconi. In 1894, he started working on sending and receiving radio waves. In 1895, he reached the radio connectivity of 1 km distance. After that, he moved from Italy to England because he hoped that people would be more interested in his invention there. He was right- he was given a chance of meeting the main engineer of the British post. In July 1886, he installed broadcasting equipment on the post roof. On another roof, 1 km away from the post, he then put a receiver with the Morse printer. Marconi operated the telegraph key and people next to the printer could read a broadcast text. It was the first wireless telegraphy and radio test ever conducted. The first radio was used to maintain contact between ships on sea.

Another inventor who contributed to the radio development was Nicola Tesla. He created Tesla coil - the electrical resonant transformer circuit. Marconi used it without his permission while working on his radio. Both inventors were working on the radio in the same time but Macaroni was the first to patent it. Marconi got the Nobel prize for his invention. Through the following decades, the radio went through a serious development. The early 20th radio systems transmitted messages by a continuous wave code only. In 1900 and 1906, the system of amplitude modulation for voice and music were demonstrated. In 1901, Marconi sent the first transatlantic signal from Ireland to Canada. During First World War, the radio was needed mainly for military communication. After the war, it became more commercial than ever and now it is an important mass medium indispensable for entertainment and news.

IMPACT OF THAT INVENTION ON SOCIETY

The invention of the radio has changed a lot of things in our society. In the past, it allowed people to stay home more often while feeling connected to the larger world, it drew the country together in moments of national importance, including presidential addresses or information about the war. One of the biggest changes the radio had on the world was the way it changed the nation leaders communicating with their citizens and how they led them through hard times.

It was the first form of wireless mass communication, apart from books. The invention of the radio affected society much the same way personal computers/the Internet affected society when it came out. People were amazed and everyone wanted one. The access to its advantages like fast information made the radio popular in a short time. In less than three decades, 90.7 percent of families in the USA had one at home.

It was also the first form of wireless "instant communication." It affected the way war was fought. Commanders could now give orders, or get instant reports from their soldiers at the battlefield or on airplanes. The radio was a major tool during the Second World War and during the Great Depression.

Without the radio, our world would be much different, we wouldn't have microwaves, cordless phones, remote controlled toys, television broadcasts and many other things we take for granted.

However, the radio is also entertainment. For the first time, people could listen to sports events "live". News reporters could now give "live" broadcast of events as they were happening. The radio till today is also the greatest art and creativity tool. Radio stations make top list of songs, create and promote music trends.

ETHICAL CONSIDERATIONS

In the broadcast journalist ethical consideration, there can be distinguished 3 main pillar - accuracy, fairness and objectivity. Accusations of inaccuracies when covering the news are ongoing, and it is common to question the motives of journalists.

The code of ethics for journalists is to follow the guidelines provided below.

- Accuracy:

  Reporting in as objective as possible manner, despite any personal attitude or belief.

  To take responsibility means:

    * Looking at all issues even unpopular ones.

    * Examining controversies, carefully, for a long time.

    * Reporting with care, compassion and understanding

    * Dealing with everything in a professional manner.

  News is required to be proven based on at least two or three sources. Some inaccuracies are however always possible because of, for example, a human mistake.

- Fairness:

  The boundaries for the reporters are not stated clearly. When it comes to certain investigative practices, each reporter must decide on their own about the ethical merit arising from the practices. Another serious ethical concern is faking or staging an aspect of a story due to changing the details and the context. For some journalists there is always a threat of libel in cases where they:

  * exposed an individual or group to public content, hatred, ridicule etc.
  * caused someone harm in their profession
  * caused someone to be shunned.

  Trial for libel may occur even if the individual name was not given in the report because the audience may know to whom the reporter referred.
  The matter of privacy is also a difficult ethical matter. It always conflicts with the freedom of press and people's right to know.

- Objectivity:

  It is very vital for the reporter to keep a news story in a perspective, because otherwise the audience may get a wrong impression about an event or situation. Giving objective news is extremely important because the audience can draw their own conclusions.

DOCUMENTARIES AND PHOTOS

A radio documentary is a speech presentation about particular subject containing a compilation of commentary and sound pictures. Since the radio was discovered, through ages, it has developed its equipment, coverage and reach. Broadcast extended and it was used for news reports, political speeches and entertainment, which includes reading novels, comedy shows, sports commentary.
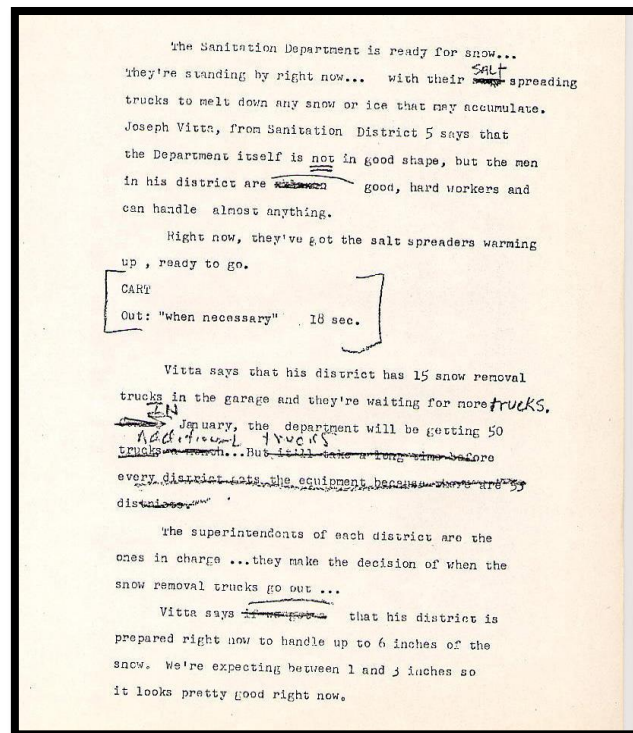
Figure 1. Example of written radio documentary

- Entertainment broadcasts - links

Popular Radio Broadcast "War of the Worlds"

Sherlock Holmes "The Demon Barber" (1946)

Live crime show "Gangbusters"

- Commercials

Old Radio Commercials #1

- Sports commentary

Baseball match (1934)

Yankees at Tigers, 9/20/34
Navin Field, Detroit

Ty Tyson, WWJ, announcer

1934 Yankees vs Tigers at Navin Field - full radio broadcast

- World War II

World War II news

CBS War News 7-01-1940 Old Time Radio otr World War 2 WW11

Adolf Hitler's speech

Adolf Hitler Speech with English Sub Titles - Public Speaking Training

Franklin Delano Roosevelt speech

The Roosevelts family were the pioneer in using the new medium of radio. From 1933, the presidential couple used it for speeches to make the nation aware of the Great Depression, to fight with banking crisis and fascism.

- Radio's revolution and evolution

  1. Process of creation
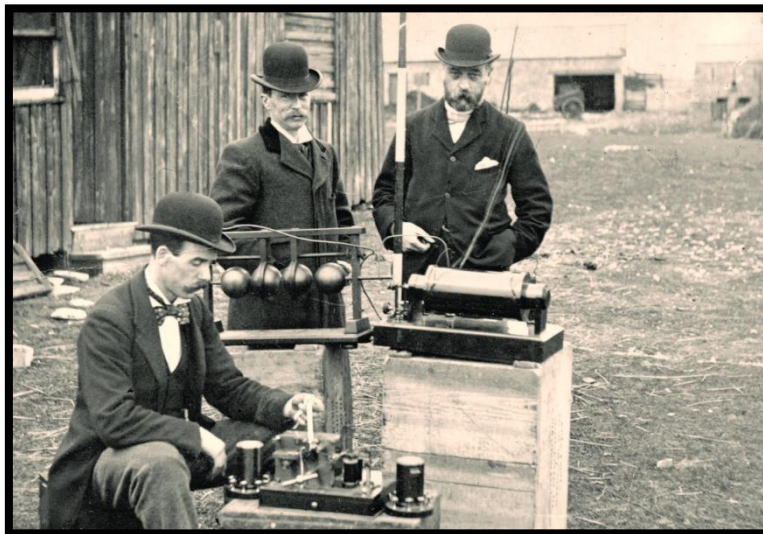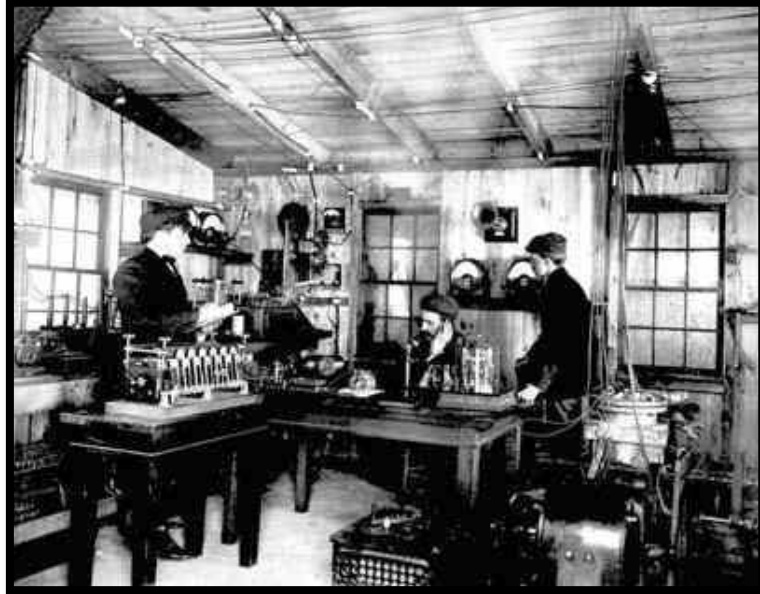
2. Design through the decades

3. Working in the radio station

4. Radio for society

FOUNDATION MEMBERS OF THE WAVERLEY AMATEUR
RADIO SOCIETY - AUGUST 1920
Standing: Bill Lawrence, n.a., Dan Williams, Les Holsgrove, Frank Geddes Snr
Seated: Neville Ruby, Frank Harvey, Maurice Anderson, n.a., Allan Burrows, Eric Lavington,
Jack Gordon, Gordon Thompson, n.a.
Photo: Gordon Thompson VK2AVT

In the early 70s, along with its development, the radio started to emit live performances as a new kind of entertainment

INFOGRAPHICS

THE USE OF RADIO (WIRELESS TELEGRAPH) DURING WORLD WAR I

Radio was developed from the telegraph. It was widely used on land, sea and in the air during WWI. Radio were used in both short and long distance wartime communication.

Radio operators with portable transmitters, for instance, were able to warn soldiers of an attack of poisonous gas, giving them time to don their gas masks.

Also, two-way voice communication with airplanes, which make possible to to achieve squadron formations of all sorts in the air as easily as infantry units on the ground. For example, Germans used radio transmissions to help airships navigate to their bombing run targets.

However, radio could be easily intercepted. Wireless sets were heavy and not particularly portable, and transmissions remained relatively unreliable. The transmission range also varied wildly depending upon atmospheric conditions.

THE HISTORY AND THE DEVELOPMENT
OF THE TELEPHONY

HISTORY OF TELEPHONY

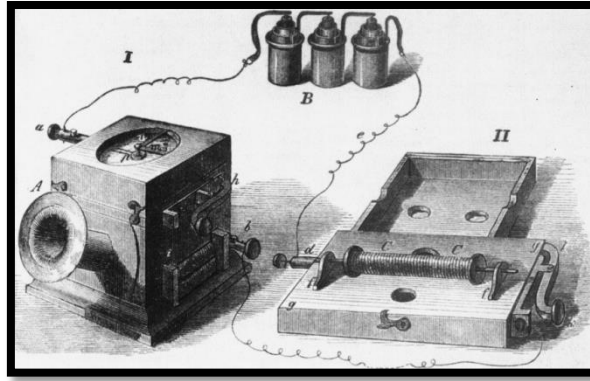1. 19th century – usage of the *tin can* or *lover's telephone*
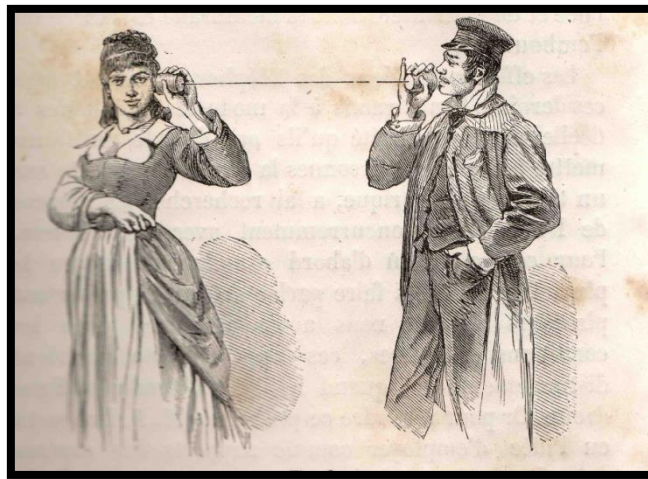
2. Antonio Meucci – 1854 – construction of the telephony-like device

3. Johann Philip Reis – 1860 – constructing the prototype of the telephony (today we call it Reis telephone)

4. Alexander Graham Bell – 1876 – patent of the telephony invention

5. Elisha Gray – 1876 – design of the telephony, which used water microscope

6. Tivander Pusàs – 1876 – invention of the telephone switchboard exchange

7. Thomas Alva Edison – invention of the carbon microscope, which produced strong telephone signal

IMPACT ON THE SOCIETY

„Mr. Watson – Come here – I want to see you"
Alexander Graham Bell (the first words spoken through the telephone, which were fully understood)

The 19th century was the time of the communication revolution. The telephone invented in 1876 has made communication more efficient and faster since it was first developed. Never before had communication been so easy even at a long distance. It is no wonder that this convenience became extremely popular in the society. By 1900, there had been nearly 600,000 phones in Bell's telephone system. In 1905, the number increased to 2.2 million and in 1910 even to 5.8 million. The introduction of the telephone changed the "writing" society into "hearing" one. Letters and generally written messages lost its importance. People were allowed to talk and stay in direct contact even when they were separate and this was much more convenient and comfortable than writing and sending the text. Due to the invention of the telephone, long distance relationships became possible.

At the very first moment, when the telephone was introduced, only the richest part of the society were able to afford it because the materials necessary for the connection were very expensive, but Graham's dream was that everybody could have the access to his invention. He wanted the telephone to join people not divide them. It was promoted that it would increase wealth, employment and improved means of communication. Communication changed the way social relationship and social interaction took place but also broadened the range of people's interactions with others.

"The telephone is the greatest nuisance among conveniences, the greatest convenience among nuisances." - Robert Slaughton Lynd

ETHICAL CONSIDERATIONS

Bell introduced his working telephone at the Centennial Exhibition in Philadelphia in June 1876. It attracted the attention of Brazilian emperor Pedro II and the physicist and

engineer Sir William Thomson. In August 1876 at the meeting of the British Association for the Advancement of Science, Thomson revealed the telephone to the European public.

Bell had been widely recognized as the "inventor" of the telephone outside Italy, where it was Meucci championed as its real inventor. In the United States, Bell had always been perceived as a North American icon inventing the telephone, and the matter was for a long time non-controversial.

The first Bell telephone company started in 1878. This is now known as the American Telephone and Telegraph Company (AT&T), which was incorporated in 1885.

In 1877, the construction of the first regular telephone line from Boston to Somerville, Massachusetts was completed. By the end of 1880, there had been 47,900 telephones in the United States.

The first regular telephone exchange was established in New Haven in 1878. Early telephones were leased in pairs to their subscribers.

With the rapidly growing number of telephone customers, AT&T and Bell Labs developed the North American Numbering Plan, a system that assigns telephone numbers to customers in the United States and its territories as well Canada and many Caribbean nations.

INFOGRAPHICS

USE OF TELEPHONY DURING WAR WORLD I

Field telephones

Field telephones are a kind of telephones used by military. They were exploited by military shortly after telephone was discovered. Before field telephones were adapted telephony was already used for military campaigns and propaganda. The first field telephone was developed in USA in 1889 but it was very expensive which didn't allow for mass production. What made field telephones way better to use by military was the fact they can draw power from their own battery or from an external power source which reduces the need for electricity. "The first field telephones had a wind-up generator, used to power the telephone's ringer & batteries to send the call, and call the manually operated telephone central" (Wikipedia). This technology was used between 1910s and 1960s. After some advancements the ring signal has been made electronically operated by a pushbutton or automatic.

Wireless sets were very desired on the beginning of the WWI for communication. There was only a small number of them and most were operated on long wave and were very heavy and unreliable.

"In 1914 the Royal Flying Corps had begun to use wireless to direct artillery fire. An example of the Marconi transmitter which would fit into an aircraft and send Morse signal to be picked up on the ground is held in the Museum.

In 1915 trench sets were involved on the western front but were not a great success, partly because the enemy could easily overhear the messages. A trench reconstruction can be seen in the Museum". (Royal Signal Museum)

Great Britain used cables and not wireless telephones to communicate between soldiers and commanders. What made wireless telephony even more necessary were heavy artillery bombardments. They destroyed the wires and lines completely making communication impossible. These lines were also very easily intercepted by Germans as they were very basic wireless telegraphs.

IWM Q 6050 Battle of Poelcappelle. Royal Engineers taking drums of telephone wire along a duckboard path

Belgian Field Telephone

"Making a telephone call took time and the quality of the line was not always good. People had to speak slowly and clearly, and it was often hard to hear what the other person was saying". (BBC)

During the WWI countries used wires laid underwater several years later. But as the war started British soldiers cut those wires to prevent Germans from communicating with their allies and other ways of communication were nt secure so German soldiers were cut off.

"Telephones were used in the trenches because they could pick up and send Morse code between units. This allowed important messages to be delivered and ensured soldiers across the front knew the plans for defence and attack". (BBC)

THE HISTORY AND THE DEVELOPMENT OF MOVING PICTURES

HISTORY OF MOVING PICTURES

The first experiments in the field of photography started in 1850s. The first machine that showed animated pictures or movies was patented in 1867 in United Stated and was called "zoopraxiscope". Despite that the first motion pictures appeared in 1890s. They were mostly focused on movement and had no plot or sound.

A few years later the Cinematograph was introduced by Auguste and Louis Lumiere, who were from France. This invention was a portable motion-picture camera, film processing unit. Collection of fifteen to thirty minute scenarios created by Lumiere brothers were one of the first movie shorts.

The french brothers had their first movie "shows", which lasted around 5-8 minutes and were a collection of quite simple scenes such as a train arriving, a man watering his garden, men playing cards, etc. Meanwhile, in the USA Thomas Edison was making similar short movie shows, which displayed water going over Niagara Falls, waves crashing at the ocean, two trains colliding.

However such movies were just a first phase of the motion pictures (late 1890s and into the 1900s) and they were mostly built around human motion. The second phase emerged around 1900. In this phase directors started to tell stories through their films. Nevertheless the time of such movies didn't exceed 8 minutes and they were called "one reelers", due to the fact that they had just one reel of film.

By the 1905 movie making was becoming more and more popular and soon became successful new industry. As a result, in 1912 Hollywood was established. A few years later, in 1927 first movie, where the actor Al Jolson spoke and sang, was produced. After that the film industry was developing at accelerated pace.

In 1932 another major improvement was made - Technicolor. Thanks to this improvements the movies were becoming more popular than ever, which led to the next twenty years being called "golden age of Hollywood".

In the late 40s television was introduced to the public. This led to huge competition for movie making industry and the number of people attending cinemas decreased by half. Thankfully,

the young adults saved the industry and are keeping it alive until now. Currently 75% of all movies tickets are sold to people between 15-25 years old. Further more movie and TV industries are working together to create the best content possible.

<u>History of motion pictures</u>

History of Moving Pictures

IMPACT OF THAT INVENTION ON THE SOCIETY

Motion pictures were to have a considerable effect on society. Their greatest effect was in the area of public entertainment, but they also played important roles in science, in education, in news delivery and in politics.

In science

Motion pictures were used to examine the movement of people and animals and the effect of explosions and bullets in flight and generally the results of many scientific experiments.

In Politics

Many movies produced for public entertainment display subtle political values. In fact, it is probably impossible to produce movies that do not display some political values. For example,

political movies have been used to advance certain political movements such as Nazism in *The Triumph of the Will* and slightly more subtly the south's cause in the American Civil War in *The Birth of a Nation*.

Public education was advanced by the making of documentaries on topics as diverse as wild life, history and science.

Psychological impact

Motion pictures performed a valuable psychological and ideological role, providing reassurance and hope to a demoralized nation. Also, they were as mere of escapism. Owing to that fact, at the movie theatres, people could forget their troubles for a couple of hours. Moreover, it is believed motion pictures gave people a better future.

Motion pictures were also used for creating countless training movies for the Army and the war-production industry. The instructional pictures shortened previous training times and allowed workers and soldiers to begin their duties sooner. Movies aided in familiarizing soldiers with foreign terrain, identifying aircrafts, simulating aerial combat.

ETHICAL CONSIDERATIONS

The invention of moving pictures is usually not considered being ethically wrong. We don't seem to notice the influence of this invention on our lives, especially on our opinions. However, movies are very opinion-forming and we very often can't even notice when this forming of our opinions happens. Some people may use it to influence others. In this process, violation of ethics can be noticed.

Propaganda is "information, especially of a biased or misleading nature, used to promote a political cause or point of view" (Oxford Online Dictionaries)

Movies are a part of a culture of every country making them. They reflect those cultures and can affect them. Film is considered as an important form of entertainment or education

but at the same time, it can be used for indoctrinating citizens. Indoctrination is a form of forcibly imposing certain ideas or attitudes to people.

Movies, however accurate may seem, are not always true. To be honest, almost every movie consists of some part of lies. Lying in mass media may be considered ethically wrong. A lot of people believe in what they hear and see in movies. Misleading information or lies can have impact on their psychology, opinions etc.

World War II

Movies played an important role in the morals of the English speaking Allied Countries during World War II. They were highly opinion-forming. Their original aim was to show the atrocities of the enemy and the rightness of the idea to protect the free world. People watching those movies were usually very easily influenced by them. Changing someone's way of thinking with their being unaware of the process can be considered morally wrong.

Adolf Hitler and his Minister of Propaganda – Joseph Goebbels, after 1933, launched massive propaganda effort, which used mixing of factual truth, half-truths, lies and values of culture and historical contexts of German people. Goebbels had an idea of propaganda having to be simple and repetitious. In the propaganda movies made at that time, massive exaggeration and

falsehood was used rather than understatement and truth. People watching Nazi propaganda movies had their opinions formed by them. Society was easy to manipulate through a kind of media like moving pictures.
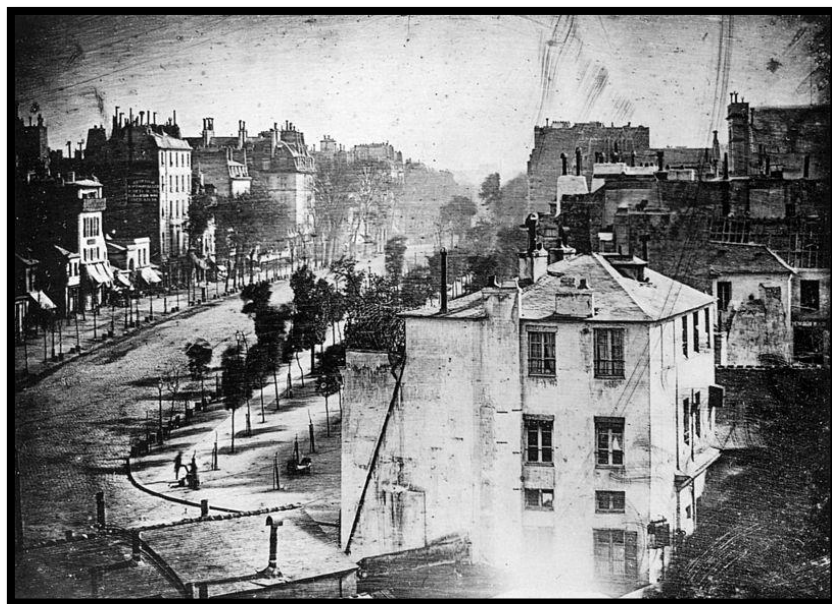
DOCUMENTARIES AND PHOTOS

History

Short video about the history of moving pictures

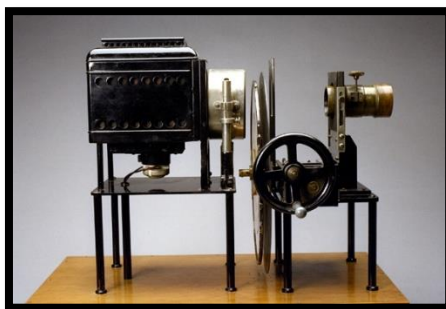1. 1850s - first experimentation in photography

The earliest photograph to include people

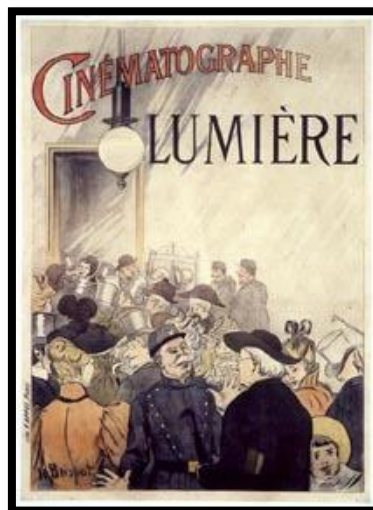## 2) 1867 - Zoopraxiscope

Muybridge's Zoopraxiscope

3) 1890s - Lumière brothers

One of their first movies - "Arrival of a Train at La Ciotat"

First film by Lumière brothers

"Workers Leaving The Lumière Factory in Lyon"

(*La Sortie de l'Usine Lumière à Lyon*)

4) 1900s - "one-reelers"

A trip to the moon (1902)

Original version

Restored film (in colour)

5) 1912 - Hollywood was established

Hollywood studio building

First Hollywood film

6) 1927 - "The Jazz Singer"

"The Jazz Singer" (fragment)

7) 1932 - Technicolor

31

Three-strip Technicolor camera from the 1930s
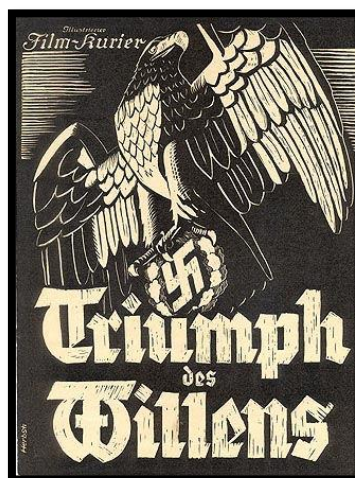
8) 1940s - Television dominates over cinema

IMPACT ON THE SOCIETY

1. Science
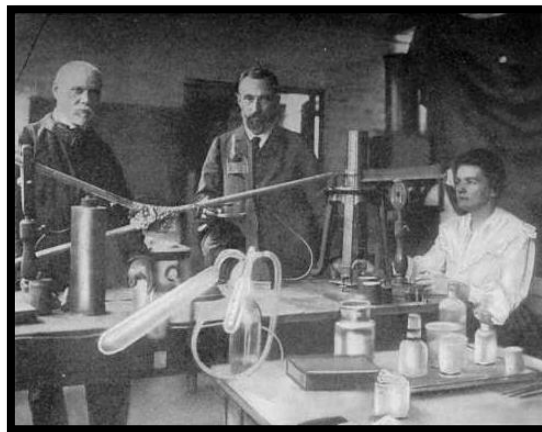
2. Politics

Powerful scene from "Triumph of the Will"

3. Education

4. Military

"WWI soldiers wave hats and hands toward camera before departing in automobiles"
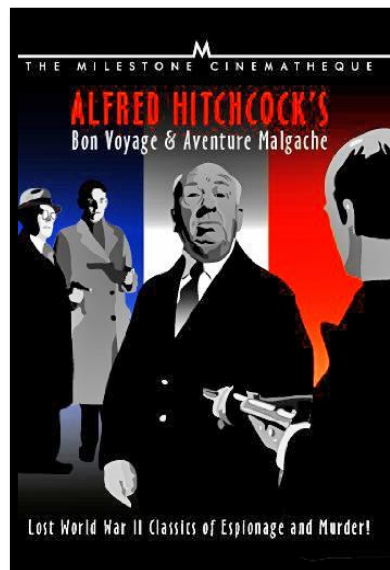
ETHICAL CONSIDERATIONS
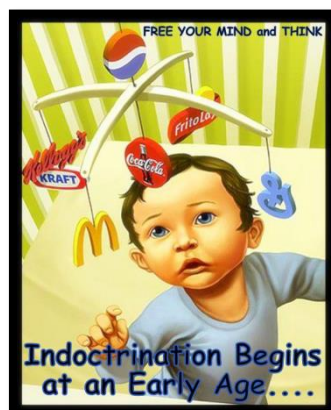
PROPAGANDA

"The Great Dictator"

"Why we fight?"

"Battleship Potemkin"

"Bon Voyage"

Berlin, Hitler's Ministry of Propaganda

Top 10 most influential propaganda movies

http://www.tasteofcinema.com/2016/the-10-most-influential-movies-used-as-propaganda/

MOVING PICTURES
history

1850s
first experimentation in photography

1867
first machine that showed animated pictures or movies called the "wheel of life" or "zoopraxiscope"

1890s
creation of Cinematograph - portable motion-picture camera and film processing unit
first shorts by Lumiere brothers (France) and Thomas A. Edison (US)

1900s
"one-reelers" - 5-8 minutes long films with only one reel

1912
Hollywood was established

1927
"The Jazz Singer" starring Al Jolson
first feature-length motion picture with synchronized sound

1932
introduction of Technicolor technique

1940s
television dominates over cinema

U.K. & A.T.

MOVING PICTURES
impact

Motion pictures were to have a considerable effect on society. Their greatest effect was in the area of public entertainment, but they also played important roles in science, education, news delivery and politics.

SCIENCE
used to record and examine the results of many scientific experiments.

POLITICS
displays subtle political values in form of a propaganda.

EDUCATION
producing documentaries on topics as diverse as wild life, history and science.

PSYCHOLOGY
performed valuable psychological and ideological role by spreading ideas and inspiring thoughts.

MILITARY
used for creating training movies for the Army and the war-production industry.

MOVING PICTURES

ethical considerations

Indoctrination is a form of forcibly imposing certain ideas or attitudes to people.

Film is considered as an important form of entertainment or education but at the same time it can be used for **indoctrinating** citizens.

A lot of people believe in what they hear and see in movies. Misleading lies can have an impact on their psychology, opinions etc.

Lying can in mass media may be considered ethically wrong.

PROPAGANDA

● ● ● ● ● ● ● ● ●

information, especially of a biased or misleading nature, used to promote a political cause or point of view

World War II

Adolf Hitler and his Ministry of Propaganda

For English speaking allied countries the original aim of using motion pictures was to show the atrocities of the enemy and the **rightness of the idea** to protect the free world.

Joseph Goebbels after 1933 launched a massive propaganda effort which used mixing of factual truth, half-truths, lies and values of culture and historical contexts of German people.

U.K. & A.T.

USE OF FILMS DURING WORLD WAR I

During the First World War films were used in many ways, but mostly for propaganda, entertainment and delivering news. At first the governments were only trying out films as a tool of propaganda, but not long after that, it became a main instrument in nationalization of the masses. Movies were used to manipulate human emotions and actions, awakening nationalist movements and mobilizing people to stand against the imagined or real enemy.

During the First World War the most popular type of films were feature-length documentaries. At that time many movies contained propaganda, but it was never straightforward since people prefered small hints over a strong message. Despite the popularity of war films, many successful movies had nothing to do with war and were used to improve the mood in the society. As a result, cinema became as a major medium for entertainment.

Furthermore, during war times animation began to develop and a new system called "star" developed. This system was used in short animation films/advertisements that contained propaganda and encouraged people to invest money in war loans, saving certificates and similar affairs.

Moreover, as war began, movies filmed during the battles began to emerge, but were censored in most belligerent countries due to brutal, terrifying and inappropriate content. Nevertheless such movies were perceived as great way to demonstrate the commitment and successes of soldiers during battles.

Factual films of the First World War provided people with opportunity to see the situation on the front lines, while giving hope for people to see their beloved. Unfortunately, such actions weren't supported by the commanders due to the information that they might contain that can be used by their enemies against them. Such reasoning led to restriction on press freedom and in some cases even to a complete ban on photography and film during the battles.

Another type of movies that emerged around 1908 were called newsreels and were used to tell short stories and news. However such film would take time to appear on the screens, so newspapers remained the main source of information.

To summarise, Great war had an enormous impact on the society and film. It influenced the type of movies that were produced and what content they had. On the other hand the use of films in the societies broadened from entertainment to delivery of news and information.

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