

# Poster presentation.

The poster is about the invention of the telephone and how it changed the world.

## Beforehand

Before the Industrial Revolution, pigeons were used to carry messages across far lands, but pigeons were unreliable because they could lose the message, could be intervened or lose track of their destination.

They also used optical communication. This way of communication was very fast of its time. The telephone provided a much faster, cheaper, and more private way of long distance communication.

The era around the Industrial Revolution provided a huge amount of inventions and discoveries that made the developments of the telephone possible. Factories spread all over the world and it was a golden age of scientific knowledge.

In my opinion there are two men who made fundamental discoveries and inventions that allowed Alexander Graham Bell to create the telephone. The first one is Michael Faraday. Faraday was the man who tried to understand electricity. Because of him we mastered the power and we used it for uncountable purposes. He also discovered that vibrations of metal could be converted to electrical impulses.

The second man is Samuel Morse. He invented the code used in the telegraph to communicate efficiently. These two men opened the door for other scientists in the future.

## Why then and there?

There is a lot of discussion about who invented the telephone. Alexander Graham Bell was the first to patent it. He did this in 1876 in the United States.

There were 3 other people who are thought to have invented the telephone, but failed to patent it before Bell did.

- One was Antonio Meucci (1856). He installed wires through his house to talk to his sick wife. Since the vocal messages were transmitted by electricity, this technically is a telephone.
- Philipp Reis (1860) was a German inventor. His manuscript was rejected by the Annalen der Physik and he couldn't interest German citizens for his invention.
- Elisha Gray (1876) officially submitted the patent two hours after Bell did. Which application arrived first is however highly disputed. Gray claims he was two hours earlier than Bell.

## Society and business

The biggest change the telephone brought in the world was that the world had become much smaller, faster, and more efficient. This had a couple of important impacts:

News spread quicker. This didn't mean only newspaper could provide the public with the latest developments quicker, but this had a great influence on the innovation as well. In England during the time of the Industrial Revolution, there was a policy of free exchange of ideas. One could use another's idea to make an improvement. Because of the telephone, scientist could discuss ideas, send them over and apply improvements faster. This improved the innovation in the world even more.

(1900: Telephone transmission extends across and between major cities) The world had become much smaller due to the telephone. People could do business with someone on the other side of the world without having to wait 6 weeks for a response.

(1965: First office switching system) It changed the way a company interacts with its customer, how it places an order at their supplier, and the way the staff interacted with each other. It made the pace of doing business much higher. The first office switching system allowed the offices to forwarding a call and to speed dial.

(1968: First 911 call is made) The telephone provided a way in which you could immediately be in contact with the authorities. This is an impact on the society since it made them feel safer.

### **What else?**

Allow social decentralization, change the way wars are fought, more public feedback, contact between nations leads potentially to world peace, decrease loneliness, and building new communities. The telephone caused so many changes in the world, they cannot all be listed and discussed. It most certainly is one of the most important inventions to our modern society yet.

### **What were common fears?**

Decline of privacy, have an impact on language, increase criminality, decline in the art of writing. There is not much data to find whether the fears came true. I feel like people are always scared of new inventions. People were scared on trains because they thought you could not breathe in high speed. They were scared by the gramophone because books would become useless. It's human nature to be scared of new things. It usually turns out fine. This is good to be aware of and a lesson for the future: new things aren't necessarily scary.

### **Political**

The telephone provided a worldwide communication network. This might have led to prevention of heated situations to escalate. Countries and world leaders could discuss any differences they may have had.

(1963) During the cold war there was a hotline between the White House and the Kremlin to be able to discuss immediately if something went wrong. This might have had prevented a cold war.

### **Afterwards**

The telephone opened the door for the fax machine and the internet. This proves that, even nowadays, the telephone still has huge impact on modern day innovations. Not only do we still use the invention of that time, we also let it evolve into other great invention that change the life of everyone on earth.

I believe the future is going to be implantation microchips that keep track of your body activities.

# The Future?



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12. A brass bell  
submitted for the  
ribbon P. was  
No sound from

13. To test whether  
the last experiment  
resulted in a piece  
of brass ribbon  
No sound

14. Five of steel  
No sound

(Kong)

It seems as if  
and that when  
the vibrating surface  
by the following experiment. Insert wire W & stretch  
it.

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March 9<sup>th</sup> 1874

water suggested  
was made and  
afternoon.

(in Fig 1) was  
across the bottom of the box (B). A piece  
(C) was ~~attached~~ attached to the center of the  
(m) forming a support for the wire W, which  
into the water in the glass vessel V.  
ribbon P. was immersed in the water also.  
was made as in the diagram (Fig 1).  
singing into the box, the pitch of the voice was  
ible from S - which letter was placed in  
m. When Mr. Watson talked into the  
an indistinct bawling was heard at S.  
the experiment I could hear a confused  
nothing sound like speech, but could not make out  
the sense. When Mr. Watson counted - I found  
I could perceive the articulations "one, two, three, four,  
five" - but this may have been fancy - as I saw his hand  
what to expect. However that may be I am certain that the  
inflection of the voice was represented by  $\frac{1}{2}$   $\frac{3}{4}$   $\frac{4}{5}$

by G. H.

Noted March 9<sup>th</sup> by G. H.

ELISHA GRAY  
INSTRUMENTS FOR TRANSMITTING AND  
RECEIVING LOCAL VOICES TELEPHONICALLY  
CURRENT FILED FEBRUARY 26<sup>th</sup> 1873

