# The Inventing of the Telegraph

## Script

Many of us are familiar with the dot sounds of Morse code that we hear seen in old time war movies. This video relates to the invention that led to those familiar sounds, the telegraph.

# The Telegraph

The word telegraph came into being long before the Morse code. The word telegraph refers to any means of communication over long distances that uses signals. The telegraph was created by Claude Chappe in France in the 18th century. Chappe had invented a signaling device which he called the tachygraph - meaning fast writer. However, he was later convinced to change the name from tachygraph to the telegraph. Chappe's device used a series of rods attached to a pole placed on a hill to relay messages across long distances. When the telegraph is spoken of today it is usually associated with the electric telegraph. This telegraph operates by the transmission of electrical signals across wires between stations. The signals are then decoded to reveal the message sent.

# The Birth of An Invention

Crediting any one individual with the invention of the telegraph is a difficult task because several scientists and inventors were working on some form of the telegraph during the early 19th century. Most notably were the works of Carl Gauss and Wihelm Webber of Germany in 1833, William Cooke and Charles Wheatstone of the United Kingdom in 1837 and Samuel Morse of the United States of America also in 1837. These various versions were embroiled in legal disputes at one time or another as several persons tried to lay claim to the patent of the devices. In Morse's case, for example he got into a bitter dispute with physicist Joseph Henry whose knowledge of electromagnetism had contributed significantly to Morse's invention. The most commercially successful versions of the telegraph were those of Cooke and Wheatsone and Morse. Cooke's and Wheatstone's first commercial device required the use of five needles and six wires to point to letters of the alphabet. Morse's device however used the electrical signals to create "dots" and "dashes" – the Morse code – which would be decoded to reveal the message. Morse's device was simpler and cheaper to operate and eventually became the most widely used telegraph. Hence today, most persons attribute the invention of the telegraph to Samuel Morse.

#### The World Becomes Smaller

The main achievement of the telegraph was the ability to reduce the separation between time, geography and communication. Before the telegraph it could take weeks for a message to be sent over long distances. The telegraph reduced this to minutes. The story is told of John Tawell, who in 1845 in Slough, England murdered his mistress and tried to escape to London on a train to evade capture (Wenzlhuemer, 2013). However, Tawell had not banked on a message being sent by telegraph to watch out for his arrival. He was subsequently arrested and convicted of the murder. Without the telegraph, messages of what had happened might have taken days instead of minutes and it is quite likely that Tawell would have got away with murder.

Arguably, the biggest impact the telegraph had on the world is that it was this invention that ushered us into globalization. However, at the time both inventors and government could not envisage the impact that the telegraph would have on trade. Samuel Morse had to petition the government for years to get funding to build the first line between Baltimore and Washington (Nye, 1997). After he was able to raise the money, control of the line was eventually returned to him because little use was being made of invention outside of a few chess games. The line was costing significantly more to operate than what it brought in (Winston, 1998). Eventually, investors started to see the utility of the telegraph for trade and newspapers started to recognize its value in getting the news out faster. Privatisation of the telegraph in the United States of America led to the first private monopoly when Western Union bought out smaller companies that operated lines.

Ideas about connecting both sides of the Atlantic by telegraphy services were being contemplated and in 1858 the first intercontinental message was sent by telegraphy using a line that ran under the sea from Ireland to Newfoundland, Canada. This meant that instead of ships carrying messages between Europe of North America which took over a week to arrive, the messages could be received in minutes. This new form communication had a significant impact on trade. When ships would leave harbour on the various trade routes there was little communication between them and their owners until they returned weeks later. This changed with the telegraph as traders were able to communicate with each other before their ships arrived.

In developing countries like Jamaica, the introduction of telegraph services had a profound impact on the lives of the citizens, especially those who lived in rural communities. Telegraph service was introduced to Jamaica in 1869 with a link between Kingston, Jamaica and Havana, Cuba (Green, 2003). The telegraph service became a part of the services that were offered by post offices. My parents, who both grew up in rural communities in Jamaica in the 1940s and 50s, recount stories of the role the telegraph played. They noted that the telegraph was only used to send very urgent messages, which in many cases meant that a relative had died. The message would be received at the post office where a special operator would decode the signals. The decoded message would be written a bright pink paper and a mailman would be sent to the deliver the message to the recipient. Once the mailman entered the community everyone would know that a telegram had arrived, and they would gather at the recipient's house in eager anticipation of the news. In some cases, the recipient would be so overcome with nervousness that they would ask one of the members of the gathered party to read the message.

### Literacy and the Telegraph

So far, we have looked at the history of the telegraph and its impact on society. Now let us consider how the telegraph affected literacy. The telegraph allowed for somewhat instant communication across vast distances, but messages sent by this medium were short because each letter was costly. Unlike earlier forms of written communication such as letter writing, the telegraph forced the writer to be very concise in the message they were sending. The telegraph therefore demanded a certain level of specificity and ensured that the writer removed all unnecessary adornments in their writing. There were some who, though not a fan of this kind of restrictiveness, especially journalists, who were major consumers of the technology in order to be on the cutting edge of news. This is much like the views of some today who believe that text

speech has made poor writers out of our students because everything becomes reduced to few letters. However, one famous journalist and writer, Ernest Hemingway, was fascinated and challenged by the impact telegrams had on his writing as it forced him to keep his prose to only what was absolutely necessary, and it is argued that his writing style was formed by his days as a journalist writing telegrams (Carey, 2008).

Another major impact the telegraph had on literacy stemmed from two main influencers of telegraphy, journalists and traders. The telegraph changed the face of newspapers and even till today many newspapers still have the word telegraph in their title. However, newspapers required that journalists, in an effort to meet the needs of broader readership, to remove local and colloquial expressions from their writing. This meant that journalists were required to be more formal and objective in their speech so that the stories could be appreciated by anyone across the country. Commodities traders were faced with a similar issue because they were also using telegrams to communicate with others who did not live in their region. It meant that they too had to be more formal and direct in their writing to prevent any kind of misunderstanding that could disrupt the deal.

### The New Wave

The demise of the telegraph was brought on by the advent of e-mail and the internet. These technologies allowed for more personal communication at cheaper rates. Today, there are still countries across the world that still offer the service, but many started going out of operation at the beginning of the 21st century. While the heyday of the telegraph is a distant memory there is no doubt that this is one invention that changed the world forever.

### **References**

- Carey, J. (2008). Technology and ideology: The case of the telegraph. In *Communication as Culture: Essays on media and society* (pp.155-177). New York, NY: Routledge.
- Carey, J. (2003). Time, space and the telegraph. In D. Crowley & P.Heyer (Eds.), Communication in history: Technology, culture, society (pp. 126-131). New York, NY: Routledge.
  - mstory. Technology, emilie, society (pp. 120-131). New Tork, 1v1. Routledge
- Electrical telegraph (n.d.). Retrieved July 4, 2018 from https://en.wikipedia.org/wiki/Electrical\_telegraph
- Green, A. (2003, November 26). No telegrams after January. The Jamaica Gleaner. Retrieved from http://old.jamaica-gleaner.com/gleaner/20031126/business/business1.html
- History.com (2010). First transatlantic telegraph cable completed. Retrieved July 7, 2018 from https://www.history.com/this-day-in-history/first-transatlantic-telegraph-cable-completed
- History.com (2009). Morse code and the telegraph. Retrieved July 7, 2018 from https://www.history.com/topics/inventions/telegraph

- Nye, D. (1997). Shaping communication networks: Telegraph, telephone, computer. *Social Research*, *64*(3), 1067–1091.
- Schwartz, M., & Hochfelder, D. (2010). Two controversies in the early history of the telegraph. *IEEE Communications Magazine*, 48(2), 28-32.
- Wenzlhuemer, R. (2013). Connecting the nineteenth-century world: The telegraph and globalization. Cambridge: Cambridge University Press.
- Winston, B. (1998). The telegraph. In Media, technology and society: A history: From the telegraph to the internet (pp. 19-29). London: Routledge.

# Images (in order of appearance)

- The Open University (2015). Claude Chappe. Retrieved July 5, 2018 from http://www.open.edu/openlearn/whats-on/events/openlearn-live-17th-december-2015
- Chappe's Semaphore. Retrieved July 5, 2018 from http://www.wikiwand.com/en/Semaphore\_line
- Bubley, E. (1943). Women in telegraphy. Retrieved July 8, 2018 from https://en.wikipedia.org/wiki/Women\_in\_telegraphy#/media/ File:Miss\_Ethel\_Wakefield,\_a\_Western\_Union\_telegraph\_PBX\_operator\_8d30850v.jpg
- Bendixen, S.D.(1828). Carl Gauss. Retrieved July 8, 2018 from https://en.wikipedia.org/wiki/Carl\_Friedrich\_Gauss#/media/File:Bendixen\_-\_Carl\_Friedrich\_Gau%C3%9F,\_1828.jpg
- Wilhelm Weber. Retrieved July 8, 2018 from https://en.wikipedia.org/wiki/Wilhelm\_Eduard\_Weber#/media/ File:Wilhelm Eduard Weber II.jpg
- Spinning Spark (2013). Charles Wheatstone and William Fothergill Cooke. Retrieved July 9, 2018 from https://en.wikipedia.org/wiki/File:Cooke\_and\_Wheatstone.jpg
- Library of Congress. Samuel Morse. Retrieved July 4, 2018 from http://www.notablebiographies.com/Mo-Ni/Morse-Samuel-F-B.html
- Turner, B. (2009). Gavel. Flickr: My Trusty Gavel. Retrieved July 9, 2018 from https://commons.wikimedia.org/wiki/File:My Trusty Gavel.jpg
- Jones, S. (2005). Wheatstone Telegraph Replica. Retrieved July 9, 2018 from https://www.flickr.com/photos/pixeljones/3123738077
- Medak, T. (2009). Morse's Telegraph. Retrieved July 9, 2018 from

- Old Steam Train Carriages on Railway. Retrieved July 9, 2018 from https://www.monoimages.com/images/old-steam-train-carriages-railway/
- Science Museum Group. Nottingham Victoria station. Retrieved July 9, 2018 from https://collection.sciencemuseum.org.uk/objects/co8450920/oxford-publishing-company-or-railprint-collection-photographs
- U.S. National Archives and Records Administration. Telegram from Harry S. Truman to Bess Wallace. Retrieved July 9, 2018 from https://commons.wikimedia.org/wiki/File:Telegram\_from\_Harry\_S.\_Truman\_to\_Bess\_Wallace\_-\_NARA\_-\_200654.jpg
- Detroit Photographic Company. Steamship Normannia. Retrieved July 9, 2018 from https://en.wikipedia.org/wiki/SS\_Normannia\_(1890)#/media/File:Steamship Normannia.png
- Kmusser (2011). Map of the Caribbean Sea and its islands. Retrieved July 9, 2018 from https://commons.wikimedia.org/wiki/File:Caribbean\_general\_map.png
- The National Library of Jamaica. The history of the post office in Jamaica. Retrieved July 9, 2018 from http://www.nlj.gov.jm/history-notes/history-notes.htm#postoffice
- Jon, S. (2011). Newspapers in black and white. Retrieved July 9, 2018 from https://www.flickr.com/photos/62693815@N03/6277208708
- O'Shea, P. (2011). Writing Tools. Retrieved July 9, 2018 from https://www.flickr.com/photos/peteoshea/5600161625
- Look Magazine (1953). Ernest Hemingway writing at campsite in Kenya. Retrieved July 9, 2018 from https://commons.wikimedia.org/wiki/ File:Ernest Hemingway Writing at Campsite in Kenya - NARA - 192655.jpg
- Alexandra Studios (1937). New Toronto Stock Exchange trading floor. Retrieved July 9, 2018 from https://en.wikipedia.org/wiki/Toronto\_Stock\_Exchange#/media/File:New\_Toronto\_Stock\_Exchange\_trading\_floor.jpg
- Daedrot (2013). Telegraph key and sounder. Retrieved July 9,
  2018 from https://commons.wikimedia.org/wiki/
  File:Telegraph\_key\_and\_sounder,\_Western\_Electric\_Manufacturing\_Co,\_Chicago,\_c.\_1
  876 Wisconsin Historical Museum DSC02817.JPG