

Scientist and contributions essay sample

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Through his experiments in wireless telegraphy, Nobel Prize-winning physicist and inventor Guglielmo Marconi developed the first effective system of radio communication. In 1899, he founded the Marconi Telegraph Company. In 1901, he successfully sent wireless signals across the Atlantic Ocean, disproving the dominant belief of the Earth's curvature affecting transmission. Marconi shared with Karl Braun the 1909 Nobel Prize in Physics. A genius was born on April 25, 1874. Guglielmo Marconi's childhood was spent in Bologna, Italy, in a wealthy family, and educated largely at home. His father Giuseppe was Italian, whereas his mother Annie had been born into the Irish Jameson family (noted as distillers of whiskey). She was 17 years younger than her husband and had eloped to join him. Mr. Marconi played the piano. Although baptized a Catholic, Guglielmo was brought up an Anglican, as was his mother. At the age of five, she brought him to England for two years' elementary schooling, and later they moved to Florence, where his mother preferred to spend her winters with the English 'colony'. He began experimenting with electromagnetics as a student at the Livorno Technical Institute.

Incorporating the earlier findings of H. R. Hertz, he was able to develop a basic system of wireless telegraphy, for which he received his first patent in England. Mr. Marconi founded the London-based Marconi Telegraph Company in 1899. Though his original transmission traveled a mere mile and a half, on December 12, 1901, Marconi sent and received the first wireless message across the Atlantic Ocean, from Cornwall, England, to a military base in Newfoundland. For his work with wireless communication, Marconi shared the Nobel Prize in Physics with Karl Braun in 1909. Mr. Marconi held

several positions in the Italian Army and Navy during World War I, starting the war as a lieutenant in 1914 and finishing as a naval commander. He was sent on diplomatic missions to the United States and France. After the war, Marconi began experimenting with basic short wave radio technology.

On his beloved yacht, Elettra, he conducted experiments in the 1920s proving the efficacy of the “ beam system” for long-distance communication. His experiment was significant, as it disproved the dominant belief of the Earth’s curvature affecting transmission. Starting in 1902, Mr. Marconi worked on experiments that stretched the distance that wireless communication could travel, until he was finally able to establish transatlantic service from Glace Bay in Nova Scotia, Canada, to Clifden, Ireland. Not long after he won his noble prize, Mr. Marconi’s wireless system was used by the crew of the RMS Titanic to call for assistance. The next step would lead to microwave transmission.

By 1926, Marconi’s “ beam system” had been adopted by the British government as a design for international communication. In addition to his groundbreaking research in wireless communication, Marconi was instrumental in establishing the British Broadcasting Company, formed in 1922. He was also involved in the development of radar. Mr. Marconi wanted to focus his accomplishment as a use for communication. Today we use it for multiple means of communication, such as the radio and the cell phone. But it was also the foundation of many other inventions including wireless technology. Marconi continued to experiment with radio technology in his native Italy until his death, on July 20, 1937, in Rome, from heart failure. In 1943, the U. S. Supreme Court declared Marconi’s radio patent invalid

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because work by other scientists, including Nikola Tesla, predated some of his findings.