The Telephone

Talking to your neighbor hasn't always been as easy as picking up the receiver

By Catherine v.O. Hoffberger

"Mr. Watson, come in here. I need you!"

These historic words are as recognizable as Martin Luther King Jr.'s inspiring "I Have a Dream" and John F. Kennedy's philosophical "Ask not what your country can do for youask what you can do for your country."

Uttered by one Alexander Graham Bell on March 7, 1876, this quote is remembered not for its eloquence or effect, but for what it represents: the invention of that great tool of everyday life, the Telephone.

Bell, born in Scotland to a deaf mother in 1847, followed the professional footsteps of his father, uncle and grandfather, all professors of elocution (the study of speaking). Young "Aleck," a passionate elocutionist, specialized in teaching speech to the deaf.

Telephony, the science of producing sound ('phono') electrically over distance ('tele'), was the rage among 19th-century inventors. The telegraph, created in England in 1833 and soon improved by American Samuel Morse, accomplished that in staccato, on-and-off rhythms. By the mid-1800s, it was the world's means of long-distance audible communication. Bell and other scientists across Europe and in the United States including Antonio Meucci, Johann Philipp Reis, Elisha Gray and Thomas Edison, experimented with ways of increasing the telegraph's capabilities.

1873 found Bell teaching at Boston University, and pursuing a new passion: acoustics. In his home laboratory, he worked to develop a tool for sending music, or voices, over distance. Such a device required a system of producing tones in constant "undulating," or waving, current.

His experiments caught the attention of Boston lawyer Gardiner Hubbard, the father of deaf student Mabel Hubbard (who would later become Bell's wife). He and a colleague financed Bell's research, thereby forming the partnership that would later be known as the Bell Telephone Co.

In three years' time, Bell's labors bore fruit. On February 14, 1876, he applied for a U.S. patent for his contraption. Composed of many complicated parts, it was essentially what we see in modern telephones: speaker, transmitter and receiver.



Three weeks later, Mr. Watson famously heard Bell summoning him over its wires. As his was the first telephone to truly work and receive a patent, Bell was credited with the invention.

Bell's fledgling business sold just six telephones in its first month. But by 1891, the company, by then known as AT&T (the Atlantic Telephone and Telegraph Co.), was operating some 5 million phones in America. Today, AT&T and other firms are responsible for hundreds of millions of phones worldwide.

Since its earliest days, the telephone has benefited from continuous research and improvements. Evolving technologies, from electric to fiber optic to cellular, have produced the evolution from the heavy, black crank-up phones of yesteryear to dial, push-button and cordless, to the Internet and today's omnipresent cell phones.

Bell anticipated that his invention would change the nature of communication, but surely he would be amazed by the telephone's vital role in daily life these 130 years hence.

Could he have predicted that the people of the 21st century would be in constant contact with each other, made possible by the personal phones we carry in our pockets?

If so, perhaps he would have changed the words that would become his most famous. He may have asked: "Mr. Watson, can you hear me now?"