

Something Big

ENIAC (Electronic Numerical Integrator and Computer) was the first general-purpose electronic computer. It was a Turing-complete digital computer capable of being reprogrammed to solve a full range of computing problems.

ENIAC was designed to calculate artillery firing tables for the U.S. Army's Ballistic Research Laboratory. When ENIAC was announced in 1946, it was heralded as the "Giant Brain." It boasted speeds 1,000 times faster than electro-mechanical machines, a leap in computing power that no single machine has since matched. This mathematical power, coupled with general-purpose programmability, excited scientists and industrialists.



The completed machine was announced to the public the evening of Feb. 14, 1946, and formally dedicated the next day at the University of Pennsylvania, having cost almost \$500,000 (nearly \$6 million in 2010, adjusted for inflation). It was in continuous operation until October 1955. The six women who did most of the programming of ENIAC were inducted in 1997 into the Women in Technology International Hall of Fame. They were Kay McNulty, Betty Jennings, Betty Snyder, Marlyn Wescoff, Fran Bilas and Ruth

Lichterman. ENIAC was a one-of-a-kind design and never repeated.

Thomas John Watson Sr. (1874 – 1956) was president of International Business Machines (IBM), who oversaw the company's growth into an international force from 1914 to 1956. He developed IBM's distinctive management style and corporate culture, and turned the company into a highly effective selling organization, based largely around punched-card tabulating machines. A leading self-made industrialist, Watson was one of the richest men of his time and was called the world's greatest salesman when he died.

How do the ENIAC and Watson tie together?

Watson saw no use for the machine. He later recalled, "It didn't move me at all. I couldn't see this gigantic, costly, unreliable device as a piece of business equipment."

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One day, however, Watson and his father wandered into an IBM research office and saw an engineer hook up a high-speed punch-card machine to a strange black box. When asked what he was doing, the engineer said, "Multiplying with radio tubes." In simpler terms, the engineer's contraption was tabulating a payroll at one-tenth the time of a standard punch-card machine.

"That impressed me as though somebody had hit me on the head with a hammer," Watson said. He told his father, "Dad, we should put this thing on the market!"

That's how IBM got into electronics. Within a year, Big Blue had electronic circuits that multiplied and divided. Thousands of the IBM 604 were sold.

What wasn't immediately obvious to Thomas Watson was obvious to the engineer working in the research department.

The lesson in all of this? Always keep your eyes and ears open to those who work with you. They just might be on to something big.

– Beecher Hunter