History of the computer Ana Teresa Novella





Pascal's calculator

- <u>Blaise Pascal invented the mechanical calculator in 1642. He conceived the idea while trying to</u> help his father who had been assigned the task of reorganizing the tax revenues of the French province of Upper Normandy.
- Pascal went through 50 prototypes before presenting his first machine to the public in 1645. He built around twenty more machines during the next decade, often improving on his original design. Nine machines have survived, most of them being on display in European museums.
- Pascal designed the only functional mechanical calculator in the 17th century.
- Its introduction launched the development of mechanical calculators first in Europe and then all over the world.
- <u>http://en.wikipedia.org/wiki/Pascal's_calculator</u>
- Pascal Invented the machine to help his father. He did a lot of tries before getting the actual machine. It is the first mechanical calculator of the world.

Berry Computer

 Atanasoff was a professor of Mathematics and Physics, and the 1920s and 30s were a time of active discoveries and new theories for the scientific disciplines, but especially for the physics discipline. Atanasoff's work required a great deal of mathematical calculation, which he performed on a Monroe calculator, that required hours and hours of calculations. Later Atanasoff sought to increase the speed and accuracy of scientific calculations through the development of an electronic digital computer. The four ideas that came together were:

1.-He would use electricity and electronics as the medium for the computer. 2.-In spite of custom, he would use base-two numbers for his computer. 3.-He would use condensors for memory and would use a regenerative or "jogging" process to avoid lapses that might be caused by leakage of power. 4.-He would compute by direct logical action and not by enumeration (counting) as used in existing analog caculating devices.

- http://jva.cs.iastate.edu/operation.php
- It was a time of discovery and Anastiff was inventing something that takes a los of time because of the technology, so he desided to make a machine so h e coul advance more rapidly

Mark 2

- Some time in 1936 or possibly in early 1937, the Harvard physician Howard Aiken (biography) started to make plans about an automatic calculation machine. The shift came about while he was doing research for his thesis. The subject of the thesis, was space charge. Before long his thesis research came to consist primarily of solving nonlinear [differential] equations. The only methods then available for numerical solutions of problems like his made use of electromagnetic desk calculators, and calculations like those he needed were extremely time-consuming. It became apparent for Aiken that the labor of calculating could be mechanized and programmed and that an individual didn't have to do this. He also realized that a computing machine would be of great use in solving pressing problems in many scientific fields, in engineering, and even in the social sciences.
- <u>http://history-computer.com/ModernComputer/Relays/Aiken.html</u>
- He Was tiered of the time consuming calculators he needed to use for his experiments so he decided to make a machine that would make the process faster.

ENIAC

- In 1946, John Mauchly and John Presper Eckert developed the ENIAC I (Electrical Numerical Integrator And Calculator). The American military sponsored their research; the army needed a computer for calculating artillery-firing tables, the settings used for different weapons under varied conditions for target accuracy.
- The Ballistics Research Laboratory, or BRL, the branch of the military responsible for calculating the tables, heard about John Mauchly's research at the University of Pennsylvania's Moore School of Electrical Engineering. John Mauchly had previously created several calculating machines, some with small electric motors inside. He had begun designing (1942) a better calculating machine based on the work of John Atanasoff that would use vacuum tubes to speed up calculations.

<u>http://inventors.about.com/od/estartinventions/a/Eniac.htm</u>

• The U.S. army needed a machine special for the processes they were doing and they herd of Machly and Presper so they called them to make the machine.