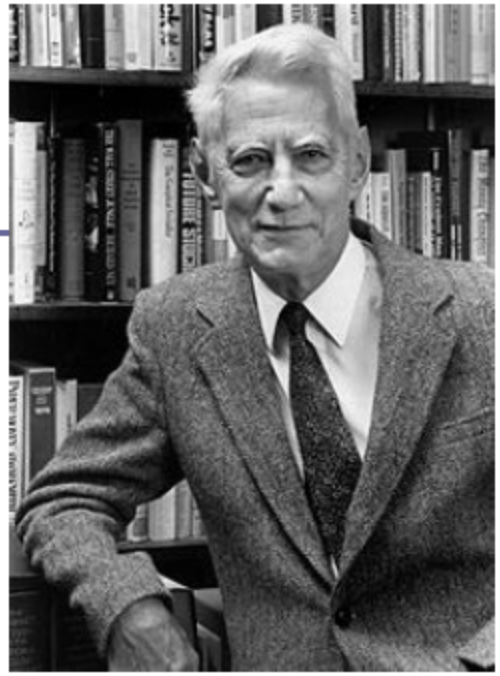
Claude Elwood Shannon
(April 30, 1916 – February 24, 2001)



- History
- Born Petoskey, Mich., April 30, 1916, grew up in Gaylord, Mich
- BS in Math, EE U. Mich. (1936)
- Worked for Vannevar Bush on differential analyzers
- SM in EE and PhD in Math (1940)
- Research fellow, Institute for Advanced Study, Princeton, NJ
- Joined Bell Laboratories in New Jersey in 1941
- Worked on secrecy systems, anti-aircraft directors
- Married Mary Elizabeth ("Betty") Moore 1949
- Donnor Professor of Science at MIT 1958-1978
- Died Feb. 24, 2001 of complications due to Alzheimer's

Master's Thesis: "A Symbolic Analysis of Relay and Switching Circuits"

- "Possibly the most important, and also the most famous, master's thesis of the century," Harvard University Professor Howard Gardner
- Proposed the use of Boolean algebra for the analysis and design of switching circuits
  - Analysis: given circuit, describe function
  - Design: given function, describe circuit
  - Minimal circuit design subject to series and parallel connections
  - Equivalent circuits
- Formed the basis for computer engineering
- http://dspace.mit.edu/handle/1721.1/11173

Claude E. Shannon Websites

Claude E. Shannon Websites
http://en.wikipedia.org/wiki/Claude_Shannon
http://www.research.att.com/~njas/doc/shannonbio.html
http://scienceworld.wolfram.com/biography/Shannon.html

The significance of Shannon's work:
http://cm.bell-labs.com/cm/ms/what/shannonday/work.html

- MIT Obituary
http://web.mit.edu/newsoffice/2001/shannon.html

December 8, 2009 J. A. O'Sullivan ESE 523 Lecture 29 9