Computer Power and Human Reason:
From Judgment to Calculation

Joseph Weizenbaum

Presented by: Jayraj Jog
Author Background

- Born in Berlin, 1923 to Jewish parents
- Left Germany in 1935
- Published ELIZA in 1966, a chatterbot with a Rogerian psychotherapy bent
- Wrote *Computer Power and Human Reason* in 1976; expressed shock at ELIZA being taken seriously as a psychotherapy tool
ELIZA

• A two-tier program:
  • Tier 1: A language interpreter
  • Tier 2: Script
  • Described as a “parody...of a Rogerian psychotherapist”
Why he was shocked by the reception

- “A number of practicing psychiatrists seriously believed [ELIZA] could grow into a completely automatic form of psychotherapy”
- The level of emotional involvement users of ELIZA had with the program
- A belief expressed widely that ELIZA represented a general solution to the natural language processing problem
Questions in the Wake of All This

● “What is it about the computer that has brought the view of man as a machine to a new level of plausibility?”

● How much control will human beings give up to computers?

● The third point doesn't seem to be a question at all; more a statement of fact. People don't understand how computers work, and draw a (fallacious) analogy between a computer and the only other calculating device they know: the brain.
How Computers have Transformed...

Philosophy

- Has always consisted of “principles that could organize and give sense and meaning to [man's] existence”
- Computers have enabled philosophy and logic to become computable
- Led to the attempt to put all aspects of life and human behavior into logical equations
Science as a “slow-acting poison”

- Rational thought has come to mean thought codified by logical principles
- All problems are seen as tractable by “judicious applications of cold logic from a higher standpoint”
- This is a result of the stunning results achieved by science doing the above
- However, logicality is being applied to domains it has no business being
Science Often Doesn't have a Leg to Stand On

- Science explains natural systems i.e systems not created by man
- Eg. Divining the rules of chess by only looking at the state of the board at different points in time
- Many of the theories that are widely accepted are discredited by results that scientists who believe in the theory say can be explained in some way
Science Often Doesn't have a Leg to Stand On (contd)

- This has happened before (example given, Charles Everett's theory of combustion, involving a substance called phlogiston) and we laugh at it now.
- But it's still happening.
- If science can't be completely certain about “science stuff (my words, not Weizenbaum's)” how can scientific methods be applied to human problems?
- A side-effect of science being regarded as the only “certain knowledge” has been the relegation of the arts to the realm of entertainment.
My Proposal for Debate

Assume that perfect AI is possible (which Weizenbaum says it isn't)

Pick a Camp
Terminator or The Matrix?