CMSC 671: Principles of Artificial Intelligence
50 years in AI

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Paula

  - Beacon (Hardware Configurator), KSTAMP: (Expert system tool for maintenance of the postal equipment), ReEngineer (System for converting code from one language to another, through abstract language Gray)
- AI research, SmithKline Beecham/GlaxoSmithKline
  - Intelligent Integration of disparate data sources, Text Mining, Capture of human knowledge in a wiki
50 years ago

- First AI course, 1965 (or so?), Michigan State University
  - Hardware available was a CDC 3600, with 64K of 48-bit words of core memory.
  - Software we used included Lisp, IPL-V and Hint.
  - Data storage available was reel-to-reel tapes
  - Input available was tape or punched cards
  - Output available was 136 character wide computer paper.
  - Text was Computers and Thought, Feigenbaum and Feldman, 1963.
How has AI changed?

• Focus went from computation in the 60s to knowledge representation in the 80s (expert systems) and is now swinging back to computation.

• Languages went from Fortran and IPL-V and Prolog to Java and C++ and Python — but Lisp!

• Interactions went from slow (24 to 48 hours), paper based to very fast interactive.

• Currently, we are using massive computer power in the cloud, with individual devices primarily as display.

• Heavy focus right now on machine learning. I think we are about due to swing back to more attention to knowledge-based systems that can be applied without massive data pools and massive compute power.

• But I’ve been wrong often over 50 years!
Dave

- BS in math, 1963, 2 years studying cognitive psychology, PhD in CS 1979.
- R&D groups Burroughs, etc, 1986-1999.
- Teaching, directing masters program 1999-now
- And teaching as an adjunct throughout his time in industry. AI, Natural Language Processing, Game Development, Programming Languages, Data Structures.
- I’ll let him answer questions about it!