Title: Historical notes
AIMA: Chapter 1

Introduction to Artificial Intelligence
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Berthe Y. Choueiry (Shu-we-ri)
`choueiry@cse.unl.edu, (402)472-5444`

Summary

- Goal of AI:
  - Understand intelligent entities
  - Build intelligent entities
- Multidisciplinary:
  - philosophy, psychology, cognitive science
  - mathematics, engineering, computer science
- Study:
  - general mechanisms
  - specific tasks
- Dimensions:
  - Concern: thought+mental processes vs. action+behavior
  - Performance: human-like vs. rational

Quick historical note (I)

1956: McCarthy organizes a two-month workshop in Dartmouth
no breakthrough, united major players, term coined

1952-1969: Early enthusiasm and great expectations
General Problem Solver (Newell & Simon),
Chess program (learning disproved "computers do what they are told to do"),
LISP in 1958, time sharing, principles of knowledge representation and reasoning,
Split: logic (neat) vs. anti-logic (scruffy, clumsy),
Microworlds (*e.g.*, block world: → vision, constraint propagation, NL understanding, planner),
Neural Nets, *etc.*

Quick historical note (II)

1966-1973: hard reality. Too big claims, wildly optimistic
1- Systems work on 1 or 2 examples, failed otherwise
NLP: Russian → English.
The spirit is willing but the flesh is weak
→ the vodka is good but the meat is rotten

2- Intractability: difficulty to scale up, handle combinatorial explosion
UK → report Lighthill in 1973, *etc.*

Neural Net almost disappears

1969-1979: Knowledge-based systems
Knowledge-based system (DENDRAL) expert knowledge
expert systems (MYCIN), certainty factors, frames (OO!)

Quick historical note (III)

1980-present: AI becomes an industry
R1 at DEC, Fifth Generation project.
S/W: Carnegie Group, Inference, Intellicorp, Teknowledge
H/W: Lisp Machines, TI, Symbolics, Xerox.

1986-present: The return of neural networks.
Late 80's-early 90's: AI winter

1987-present: Big changes. AI becomes a science
Claims more rigorously supported: empirically or theoretically

1988-: Resurgence of probabilistic & decision theory (UAI).
"Nouvelle AI:" ALife, GAs, soft computing

1995-present: Emergence of intelligent agents