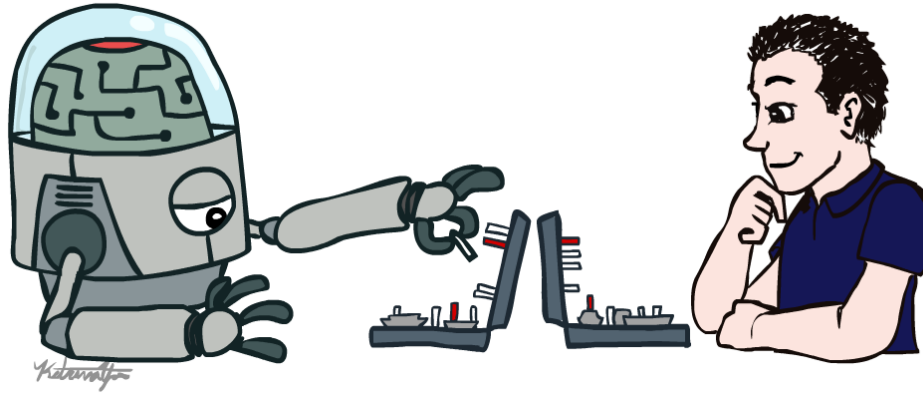


Advanced Topics in AI

History of AI

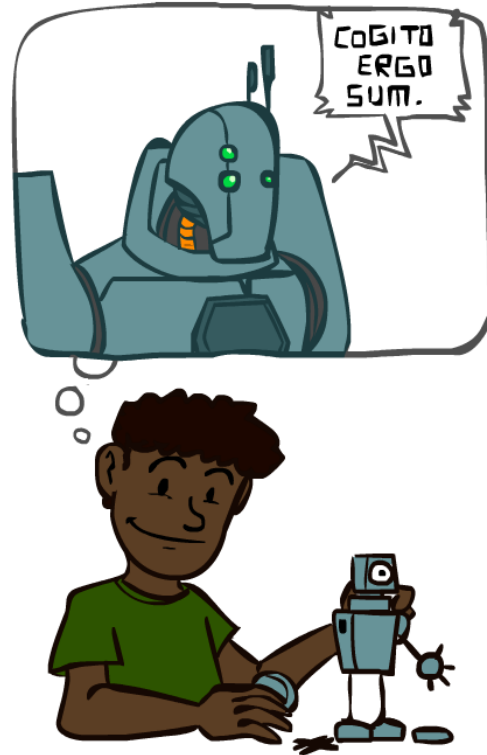


Instructor: Prof. Dr. techn. Wolfgang Nejdl

Leibniz University Hannover



A (Short) History of AI



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- 1940-1950: Early days
 - 1943: McCulloch & Pitts: Boolean circuit model of brain
 - 1950: Turing's "Computing Machinery and Intelligence"
- 1950—70: Excitement: Look, Ma, no hands!
 - 1950s: Early AI programs, including Samuel's checkers program, Newell & Simon's Logic Theorist, Gelernter's Geometry Engine
 - 1956: Dartmouth meeting: "Artificial Intelligence" adopted
 - 1965: Robinson's complete algorithm for logical reasoning

A (Short) History of AI



1996: "I could feel --- I could smell --
- a new kind of intelligence across
the table." ~Kasparov

- 1970—90: Knowledge-based approaches
 - 1969—79: Early development of knowledge-based systems
 - 1980—88: Expert systems industry booms
 - 1988—93: Expert systems industry busts: "AI Winter"
- 1990—: Statistical approaches
 - Resurgence of probability, focus on uncertainty
 - General increase in technical depth
 - Agents and learning systems... "AI Spring"
 - 1996: Kasparov defeats Deep Blue at chess
 - 1997: Deep Blue defeats Kasparov at chess
„Deep Blue hasn't proven anything." ~Kasparov



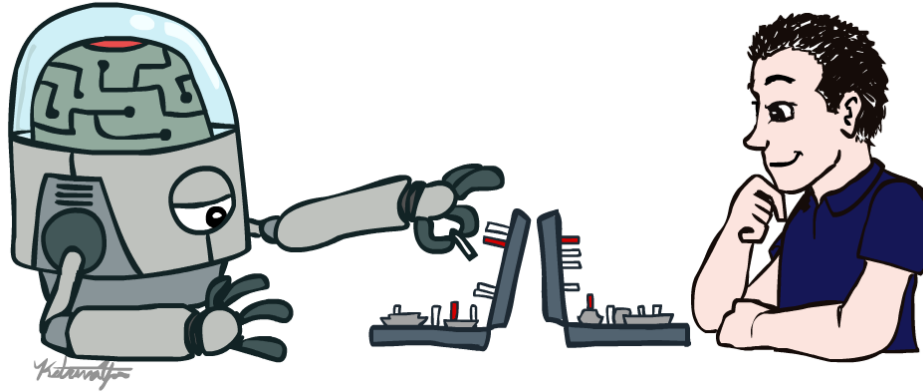
A (Short) History of AI



- 2000—: Where are we now?
 - Big data, big compute, neural networks
 - Some re-unification of sub-fields
 - AI used in many industries
 - Chess engines running on ordinary laptops can
- defeat the world's best chess players
 - 2011: IBM's Watson defeats Ken Jennings and
- Brad Rutter at Jeopardy!
- 2016: Google's AlphaGo beats Lee Sedol at Go

Advanced Topics in AI

Next: What can AI do?



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