

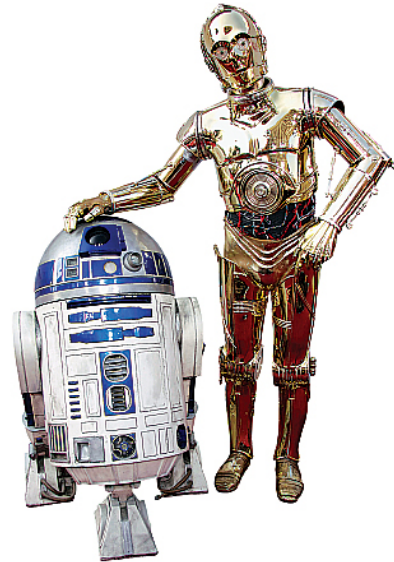
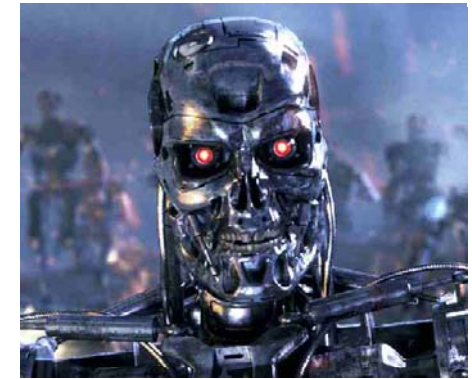
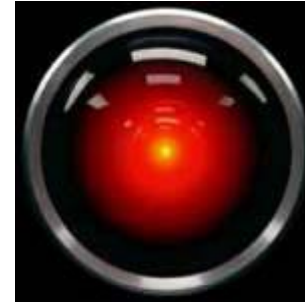
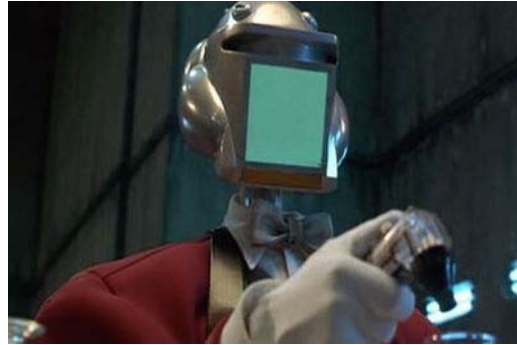
Modern **Artificial** Intelligence

A new SDT Specialization

Georgios N. Yannakakis and Rune M. Jensen

IT University of Copenhagen

16 January 2009



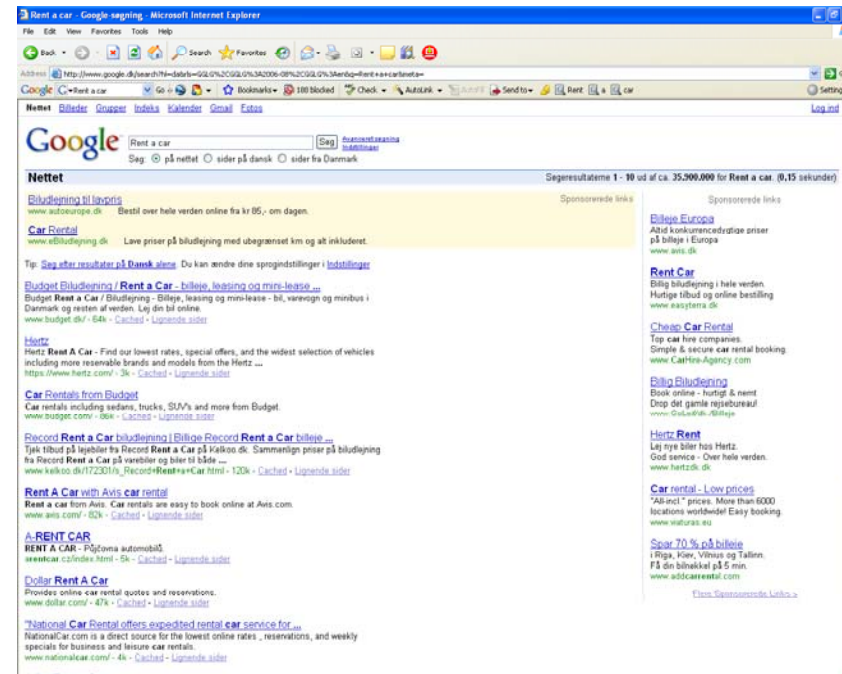


“Intelligent” Products



Win or luse, it was a great game

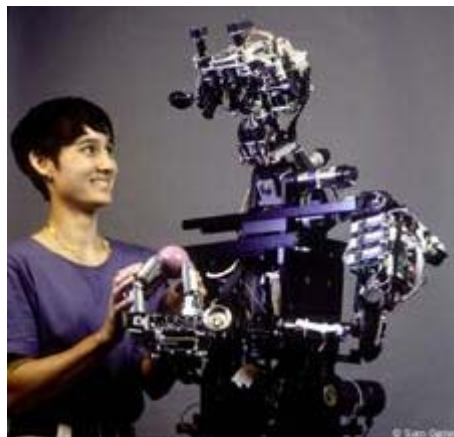
Win or lose, it were a great game



Affective Products



Sometimes I just popup for no particular reason, like now.



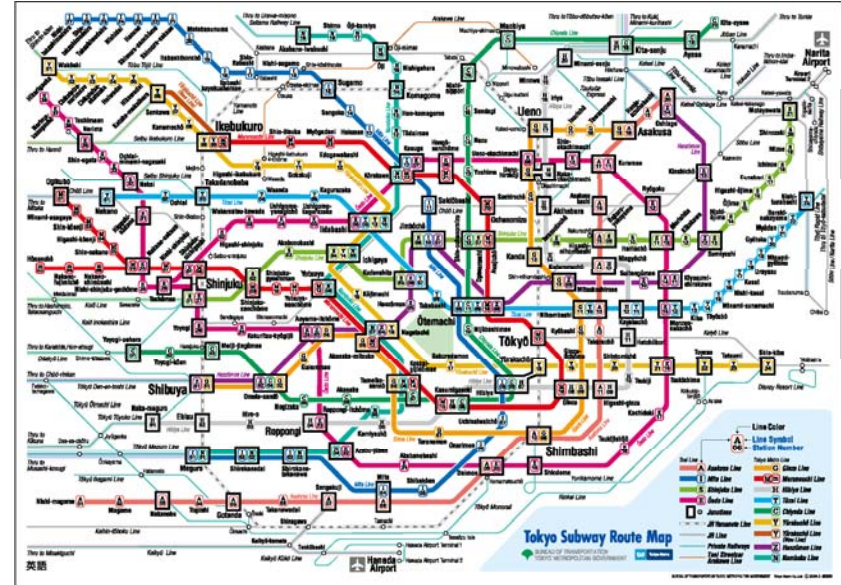
Datamining



Games



Optimization



Organization

	Autumn	Spring	Autumn
Databases	Database Systems (7,5 ECTS)	Database Tuning (15 ECTS)	
Models and Programs	Advanced OOP (7,5 ECTS)	Advanced Models and Programs (15 ECTS)	
Mobile and Distributed Systems		Mobile and Distributed Systems (7,5 ECTS)	Advanced Mobile and Distributed Systems (15 ECTS)
Scalable Computing		AI Programming (7,5 ECTS)	Advanced Algorithms (15 ECTS)
Modern Artificial Intelligence		AI Programming (7,5 ECTS)	Advanced AI in Games (15 ECTS)

Efficient AI Programming S09

- Uninformed search
- Informed search
- Local search
- Adversarial search*
- Propositional logic
- Binary decision diagrams I/II*
- Constraint programming I/II*
- Planning
- Decision tree learning

Advanced AI in Games F09

- Expert Knowledge Systems
 - FSMs, Fuzzy Logic
- Unsupervised Learning
- Supervised Learning
 - Artificial Neural Networks
- Reinforcement Learning
 - Genetic Algorithms, Temporal difference learning
- Hybrids
 - Neuroevolution, Neurofuzzy, Learning Classifier Systems
- Advanced: AI and Affective Computing

Advanced AI in Games F09

- Student Demos/Videos
 - [Learn to Shoot](#) in Quake IV
 - [Ant Colony Simulation](#)
 - [Resource Management](#) in RTS games
 - ... many more – join the course and find out!

Possible new MAI courses

- Constraint Programming
 - Algorithms
 - Modelling
 - Applications