

Úterý 8. 11. 2011, 9:00 - 10:30, posluchárna S9, MFF UK

**Agents that act, perceive and communicate in games.**

*Frank Dignum, University of Utrecht*

In order for agents to live in a game environment they have to interact with the environment and each other in a natural and efficient way. Where the interfaces to game engines are mainly physics oriented, the agents are mostly cognition oriented. In order to establish a good connection between the games and the agents we have to bridge this gap. In this presentation I will discuss the issues that we have encountered and how we solved (some of) them using a middleware layer CIGA. I will also discuss requirements on the agent platforms for making them suitable to use for games.

**An Empirical Study of Patterns in Agent Programs: An Unreal Tournament Case Study in GOAL**

*Koen Hindriks, University of Delft*

Various agent programming languages and frameworks have been developed by now, but very few systematic studies have been done as to how the language constructs in these languages may and are in fact used in practice. Performing a study of these aspects contributes to the design of best practices or programming guidelines for agent programming. We discuss an extensive analysis of agent programs for the first-person shooter game Unreal Tournament 2004, and identify and discuss several structural code patterns based on a qualitative analysis of the code, and analyze for which purposes the constructs of GOAL are typically used. This provides insight into more practical aspects of the development of agent programs, and forms the basis for development of programming guidelines and language improvements.