Patterns in Agent Programming

Dr. Koen V. Hindriks

Assistant Professor, Faculty of EEMCS, Man-Machine Interaction Group, Delft University of Technology, The Netherlands

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 a results from a number of empirical studies on agent programming involving among others a large project using the first-person shooter game Unreal Tournament 2004. We discuss structural code patterns based on a qualitative analysis of the code. This work aims at gaining insight into the more practical aspects of the development of agent programs, and forms the basis for development of programming guidelines and language improvements.