Knowledge Representation Tools for Electronic Commerce

The graft of Semantic Annotation into Electronic Commerce brings new opportunities for the application of Knowledge Representation techniques originally devised for Knowledge Bases. In this talk, I tackle two phases of an Electronic Commerce transaction, namely matchmaking and negotiation, and argue that – in addition to standard Deductive Reasoning, and Decision Theory – some non-standard forms of reasoning are present when accomplishing matchmaking and negotiation: Abduction, Belief Revision, Preference-based reasoning. However, the use of these forms of reasoning is not the same as their use in Knowledge Bases. I point out the changes that are needed, and sketch open problems and possible lines of research.