SPEAKER:

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DATE:

Wednesday the 12th of January 2011

TIME:

15:15 - 16:15

LOCATION:

Heriot-Watt University, Earl Mountbatten Building; room G.44

TITLE:

Planning for Natural Language: Instruction Giving, Robot Dialogue, and Social Interaction

ABSTRACT:

Natural language generation and dialogue both have long traditions as application areas of automated planning systems. While current mainstream approaches have largely ignored the planning approach to natural language, several recent research efforts have sparked a renewed interest in this area.

In this talk, I will present ongoing work aimed at applying planning techniques to domains inspired by problems in natural language. In particular, I will describe the GIVE (Generating Instructions in Virtual

Environments) domain and a robot dialogue domain from the EU PACO-PLUS project. In GIVE, we model the underlying instruction-giving task as an instance of the classical planning problem, and investigate the efficiency of current off-the-shelf planners like FF and SGPLAN in this domain. In PACO-PLUS, we use the knowledge-level PKS planner and treat the problem of generating sequences of speech acts as the more general problem of planning with incomplete information and sensing actions.

I will also briefly discuss JAMES (Joint Action for Multimodal Embodied Social Systems), a new EU-funded FP7 project focusing on social interaction in multiagent environments, and the role of planning in this project.