Special Track on

Case-Based Reasoning

Over the past 11 years, this FLAIRS special track program has provided a focal point for the North American case-based reasoning (CBR) community, though it has drawn good international participation as well. The CBR special track at FLAIRS has come to fill the important role of a North American symposium on CBR and it is well regarded in the community.

Five papers were accepted this year. Ontañón presents seven different case acquisition techniques for CBR systems that use learning from demonstration and performs a comparative evaluation in the context of real-time strategy games. Ontañón and Plaza describe a preliminary formal model of knowledge transfer in case-based inference based on the idea of partial unification. Their goal is to shed light on what knowledge that is present in the source cases is transferred to the target problem.

Jalali and Leake present a new approach for ordering questions in conversational CBR systems that takes into account not just their discriminativeness but also the user's ability to answer. Using this combination of information gain and response likelihood, systems can avoid useless questions and shorten the length of the dialogues. Hurrel, Smeaton and Smyth describe a proof-of-concept recommender system to help visitors plan jogging routes in new cities. It uses mobile devices to automatically capture real-life experiences, in this case the routes of other runners, and a mix of case retrieval, interactive adaptation and multimedia explanation to provide useful recommendations.

Floyd, Bicakci and Esfandiari present an approach to learning by observation that minimizes the amount of human intervention required when either the environment or behavior being observed changes. They show how an agent controlling a robot can dynamically change its case structure as new sensors and effectors are added to the robot.

Finally, we would like to thank everyone who contributed to the success of this special track, especially the authors, the program committee members, and the organizers of the FLAIRS 2012 conference.