

Preface

In recent years the interest in multi-agent systems (MAS) has grown tremendously. The applications of MAS range from digital libraries through cooperative engineering to electronic commerce. All these applications have one thing in common: the agents operating within these systems have to communicate.

A first attempt to come to a standardised agent communication language (ACL) came forth from the DARPA knowledge sharing project and produced KQML. Up till now KQML is the only ACL that is implemented and (widely) used (at least in the academic world). More recently another effort to come to a standard ACL has started through the FIPA initiative.

Although the above initiatives show that some work has been done on ACL's, there seems to be little consensus on the basics of agent communication. There is no clear understanding of the semantics of individual speech acts or even the basic concepts that should be used to define the semantics. Even less is known about the semantics of conversations and the relations between speech acts and the conversations of which they form a part.

In two separate workshops last year an attempt was made to bring researchers in the field of agent communication together to discuss issues on agent communication languages and conversation policies. The workshop on Specifying and Implementing Conversation Policies (SICP) attracted around 20 papers of which 12 were selected for presentation. The workshop on Agent Communication Languages (ACL) attracted around 25 papers of which 12 were also selected. From these 24 papers two were not selected for this volume, while another two were written by the same set of authors and were so close in content that they were asked to join the papers into one. That leaves 21 contributions in this first volume on agent communication.

After this first successful attempt in organizing a workshop in this area, the organizers decided to join forces for next year such that there will be one international workshop on agent communication that will hopefully serve as the main place for researchers in this area to exchange their ideas.

We believe that the current volume gives an adequate view of the current state of the research in this field. We have added an introduction to highlight a number of issues that play an important role in agent communication in the hope that it will be of use to many researchers and practitioners in the agent community.

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