

学术探讨

一种基于社会承诺的Agent组织模型OMSC

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摘要 多Agent领域所面临的一个重大的挑战是解决开放异质的多Agent系统中自治Agent间的协调问题。多Agent为了协调它们之间的活动, 需要进行交互。社会承诺作为一种通信和交互机制, 为自治的多Agent提供了一种协调的途径。然而, 仅靠交互难以实现多Agent间的协调。Agent组织作为一种协调模型可以有效地控制多Agent间的交互与合作。论文将社会承诺和Agent组织两种协调机制相结合, 提出一种基于社会承诺的Agent组织模型OMSC, 分析了Agent如何用社会承诺进行推理以及基于社会承诺的多Agent系统并给出了一个实例, 为多Agent间的协调提供了一种新的方法。

关键词 [Agent组织](#) [社会承诺](#) [多Agent协调](#)

分类号

Social commitment based agent organization model OMSC

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Abstract

One of the main challenges faced by the multi-agent community is to ensure the coordination of autonomous agents in open heterogeneous multi-agent systems. In order to coordinate their activity, agents should be able to interact with each other. As a communication and interaction mechanism, social commitment provides an approach for agents to coordinate. However, multi-agent coordination only by means of interaction models is difficult to achieve. Agent organizations can control the way agents interact and cooperate effectively. In this paper we bring together the two mechanisms of coordinating agents: social commitment and agent organizations, propose a model based on social commitment for agent organizations, analyze how to reason using social commitment and commitment-based multi-agent systems, and give an example for our model. This model provides a new approach for agents to coordinate.

Key words [agent organizations](#) [social commitment](#) [multi-agent coordination](#)

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