Towards next generation coordination infrastructures

Abstract

Coordination infrastructures play a central role in the engineering of multiagent systems. Since the advent of agent technology, research on coordination infrastructures has produced a significant number of infrastructures with varying features. In this paper, we review the state of the art coordination infrastructures with the purpose of identifying open research challenges that next generation coordination infrastructures should address. Our analysis concludes that next generation coordination infrastructures must address a number of challenges: (i) to become socially aware, by facilitating human interaction within a MAS; (ii) to assist agents in their decision making by providing decision support that helps them reduce the scope of reasoning and facilitates the achievement of their goals; and (iii) to increase openness to support on-line, fully decentralised design and execution. Furthermore, we identify some promising approaches in the literature, together with the research issues worth investigating, to cope with such challenges.
[4] https://www.iiia.csic.es/en/staff/maite-l%C3%B3pez-s%C3%A1nchez