



Special Issue Reprint

## **Multi-Agent Systems 2019**

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Research on intelligent agents and multi-agent systems has matured during the past decade. and many effective applications of this technology are currently being deployed. Although computational approaches for multi-agent systems have mainly emerged in the past few decades, scholars have been prolific with regard to the variety of methods proposed to solve this paradigm. Different communities have emerged with multi-agent systems as their main research topic. Multi-agent systems allow the development of distributed and intelligent applications in complex and dynamic environments. Systems of this kind play a crucial role in life, evidenced by the broad range of applied areas involved in their use, including manufacturing, management sciences, e-commerce, and biotechnology. There are many reasons for the interest of researchers in this new discipline. Firstly, computational systems have gradually shifted towards a distributed paradigm where heterogeneous entities with different goals can enter and leave the system dynamically and interact with each other. Secondly, new computational systems should be able to negotiate with one another, typically on the behalf of humans, in order to come to mutually acceptable agreements. As a consequence, autonomy, interaction, mobility, and openness are key concepts studied in the area. The purpose of this book is to document some of the advances made in this paradigm and attempt to show the current state of this technology by analyzing different aspects in addition its possible application in various domains. This review of the current state-of-the-art does not intend to make an exhaustive exploration of all the current existing works but, rather, to try to give an overview of the research in agent technology, showing the high level of activity of this area.



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