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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	List of Contributors; CONTENTS; Introduction to Agent Engineering; Motivation; Key Issues; An Overview of this Volume; Chapter 1 Why Autonomy Makes the Agent; 1.1 Introduction; 1.2 Agents, Objects & Data; 1.3 Autonomy, Messages & Mobility; 1.4 Defining a Mobile Agent; 1.5 Efficient Use of Network Resources; 1.6 Discussion; Appendix; References; Chapter 2 Knowledge Granularity Spectrum, Action Pyramid, and the Scaling Problem; 2.1 Introduction; 2.2 A Case Study: the Object Search Agent; 2.3 Knowledge Granularity in General; 2.4 Selecting Knowledge Granularity 2.5 Knowledge Granularity Spectrum and Action Pyramid2.6 Conclusion; Bibliography; Chapter 3 The Motivation for Dynamic Decision-Making Frameworks in Multi-Agent Systems; 3.1 Introduction; 3.2 Related Work; 3.3 Multi-Agent Testbed Infrastructure; 3.4 Multi-agent Experiments; 3.5 Discussion; 3.6 Conclusions; Bibliography; Chapter 4 Dynamically Organizing KDD Processes in a Multi-Agent KDD System; 4.1 Introduction; 4.2 Requirements for Multi-Agent Based KDD Architecture; 4.3 The GLS System; 4.4 KDD Process Planning; 4.5 Handling Iteration and Changes of KDD Process; 4.6 Concluding Remarks

BibliographyChapter 5 Self-Organized Intelligence; 5.1 Introduction; 5.2 Organization of the Chapter; 5.3 Problem Statement; 5.4 Adaptive Self-Organized Vision for Image Feature Detection and Tracking; 5.5 Self-Organized Motion in Group Robots; 5.6 Related Work; 5.7 Concluding Remarks; Bibliography; Chapter 6 Valuation-Based Coalition Formation in Multi-Agent Systems; 6.1 Introduction; 6.2 Agents and Actions; 6.3 Models of Dynamic Groups; 6.4 Some thoughts on agent self-contemplation; 6.5 Conclusions; Bibliography Chapter 7 Simulating How to Cooperate in Iterated Chicken and Prisoner's Dilemma Games7.1 Introduction; 7.2 Background; 7.3 The simulations; 7.4 Results; 7.5 Discussion; Bibliography; Chapter 8 Training Intelligent Agents Using Human Data Collected on the Internet; 8.1 Introduction; 8.2 Motivation; 8.3 The first domain: Tron; 8.4 The second domain: CEL; 8.5 Conclusion; Bibliography; Chapter 9 Agent Dynamics: Soap Paradigm; 9.1 Multi-agent systems; 9.2 Multi-soap agent model; 9.3 Evolution dynamics of soap froths; 9.4 Simulation model; 9.5 Applications; 9.6 Concluding remarks; Bibliography Author IndexSubject Index

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## Sommario/riassunto

Agent engineering concerns the development of autonomous computational or physical entities capable of perceiving, reasoning, adapting, learning, cooperating and delegating in a dynamic environment. It is one of the most promising areas of research and development in information technology, computer science and engineering. This book addresses some of the key issues in agent engineering: What is meant by "autonomous agents"? How can we build agents with autonomy? What are the desirable capabilities of agents with respect to surviving (they will not die) and living (they will furthermore enjoy

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