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Nota di contenuto	Models and Typologies -- Agency, Learning and Animal-Based Reinforcement Learning -- Agent Belief Autonomy in Open Multi-agent Systems -- Dimensions of Adjustable Autonomy and Mixed-Initiative Interaction -- Founding Autonomy: The Dialectics Between (Social) Environment and Agent's Architecture and Powers -- Agent Autonomy Through the 3 M Motivational Taxonomy -- A Taxonomy of Autonomy in Multiagent Organisation -- Autonomy and Reasoning for Natural and Artificial Agents -- Types and Limits of Agent Autonomy -- Autonomy in Multi-agent Systems: A Classification Attempt -- Autonomy and Agent Deliberation -- Requirements for Achieving Software Agents Autonomy and Defining Their Responsibility -- Design and Applications -- Agent Design from the Autonomy Perspective -- From Individual Based Modeling to Autonomy Oriented Computation -- Toward Quantum Computational Agents -- Adjustable Autonomy Challenges in Personal Assistant Agents: A Position Paper -- Autonomy

in an Organizational Context -- Dynamic Imputation of Agent Cognition -- I am Autonomous, You are Autonomous -- Agents with Initiative: A Preliminary Report -- A Teamwork Coordination Strategy Using Hierarchical Role Relationship Matching -- A Dialectic Architecture for Computational Autonomy.

Sommario/riassunto

This volume contains the postproceedings of the 1st International Workshop on Computational Autonomy – Potential, Risks, Solutions (AUTONOMY 2003), held at the 2nd International Joint Conference on Autonomous Agents and Multi-agent Systems (AAMAS2003), July 14, 2003, Melbourne, Australia. Apart from revised versions of the accepted workshop papers, we have included invited contributions from leading experts in the field. With this, the present volume represents the first comprehensive survey of the state-of-the-art of research on autonomy, capturing different theories of autonomy, perspectives on autonomy in different kinds of agent-based systems, and practical approaches to dealing with agent autonomy. Agent orientation refers to a software development perspective that has evolved in the past 25 years in the fields of computational agents and multiagent systems. The basic notion underlying this perspective is that of a computational agent, that is, an entity whose behavior deserves to be called flexible, social, and autonomous. As an autonomous entity, an agent possesses action choice and is at least to some extent capable of deciding and acting under self-control. Through its emphasis on autonomy, agent orientation significantly differs from traditional engineering perspectives such as structure orientation or object orientation. These perspectives are targeted on the development of systems whose behavior is fully determined and controlled by external units (e.g., by a programmer at design time and/or a user at run time), and thus inherently fail to capture the notion of autonomy.
