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Nota di contenuto	Views -- A Discussion of Two Major Benefits of Using Agents in Software Development -- Signs of a Revolution in Computer Science and Software Engineering -- Models -- Rationality, Autonomy and Coordination: The Sunk Costs Perspective -- A Normative and Intentional Agent Model for Organisation Modelling -- Simulating Computational Societies -- Co-Fields: Towards a Unifying Approach to the Engineering of Swarm Intelligent Systems -- A Schema for Specifying Computational Autonomy -- Activity Theory as a Framework for MAS Coordination -- An Operational Framework for the Semantics of Agent Communication Languages -- Access-as-you-need: A Computational Logic Framework for Accessing Resources in Artificial Societies -- Motivating Participation in Peer to Peer Communities -- Engineering -- ADELFE: A Methodology for Adaptive Multi-agent

Systems Engineering -- Evaluating Multi-agent System Architectures: A Case Study Concerning Dynamic Resource Allocation -- Engineering Agent Systems for Decision Support -- Co-ordinating Heterogeneous Interactions in Systems Composed of Active Human and Agent Societies -- Modelling and Design -- SABPO: A Standards Based and Pattern Oriented Multi-agent Development Methodology -- Modelling a Multi-agent System Environment -- Towards a Methodology for Coordination Mechanism Selection in Open Systems -- Specification by Refinement and Agreement: Designing Agent Interaction Using Landmarks and Contracts -- An Agent and Goal-Oriented Approach for Virtual Enterprise Modelling: A Case Study.

Sommario/riassunto

The characteristics of software systems are undergoing dramatic changes. We are moving rapidly into the age of ubiquitous information services. Persistent computing systems are being embedded in everyday objects. They interact in an autonomous way with each other to provide us with increasingly complex services and functionalities that we can access at any time from anywhere. As a consequence, not only do the numbers of components of software systems increase; there is also a strong qualitative impact. Software systems are increasingly made up of autonomous, proactive, networked components. These interact with each other in patterns and via mechanisms that can hardly be modeled in terms of classical models of interaction or service-oriented coordination. To some extent, future software systems will exhibit characteristics making them more resemblant of natural systems and societies than of mechanical systems and software architectures. This situation poses exciting challenges to computer scientists and software engineers. Already, software agents and multi-agent systems are recognized as both useful abstractions and effective technologies for the modeling and building of complex distributed applications. However, little is done with regard to effective and methodic development of complex software systems in terms of multi-agent societies. An urgent need exists for novel approaches to software modeling and software engineering that enable the successful deployment of software systems made up of a massive number of autonomous components, and that allow us to control and predict their behaviour.