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	Software engineering
	Computers
	Data mining
	Computer simulation
	Pattern recognition
	Artificial Intelligence
	Software Engineering
	Computation by Abstract Devices
	Data Mining and Knowledge Discovery
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Historical and Philosophical Issues -- AI in the 21st Century – With Historical Reflections -- The Physical Symbol System Hypothesis: Status and Prospects -- Fifty Years of AI: From Symbols to Embodiment - and Back -- 2006: Celebrating 75 Years of AI - History and Outlook: The Next 25 Years -- Evolutionary Humanoid Robotics: Past, Present and Future -- Philosophical Foundations of AI -- On the Role of AI in the Ongoing Paradigm Shift within the Cognitive Sciences -- Information Theory and Quantification -- On the Information Theoretic Implications of Embodiment – Principles and Methods -- Development Via

Information Self-structuring of Sensorimotor Experience and Interaction -- How Information and Embodiment Shape Intelligent Information Processing -- Preliminary Considerations for a Quantitative Theory of Networked Embodied Intelligence -- A Quantitative Investigation into Distribution of Memory and Learning in Multi Agent Systems with Implicit Communications -- Morphology and Dynamics -- AI in Locomotion: Challenges and Perspectives of Underactuated Robots -- On the Task Distribution Between Control and Mechanical Systems -- Bacteria Integrated Swimming Microrobots -- Adaptive Multi-modal Sensors -- Neurorobotics -- What Can AI Get from Neuroscience? -- Dynamical Systems in the Sensorimotor Loop: On the Interrelation Between Internal and External Mechanisms of Evolved Robot Behavior -- Adaptive Behavior Control with Self-regulating Neurons -- Brain Area V6A: A Cognitive Model for an Embodied Artificial Intelligence -- The Man-Machine Interaction: The Influence of Artificial Intelligence on Rehabilitation Robotics -- Machine Intelligence, Cognition, and Natural Language Processing -- Tests of Machine Intelligence -- A Hierarchical Concept Oriented Representation for Spatial Cognition in Mobile Robots -- Anticipation and Future-Oriented Capabilities in Natural and Artificial Cognition -- Computer-Supported Human-Human Multilingual Communication -- Human-Like Intelligence: Motivation, Emotions, and Consciousness -- A Paradigm Shift in Artificial Intelligence: Why Social Intelligence Matters in the Design and Development of Robots with Human-Like Intelligence -- Intrinsically Motivated Machines -- Curious and Creative Machines -- Applying Data Fusion in a Rational Decision Making with Emotional Regulation -- How to Build Consciousness into a Robot: The Sensorimotor Approach -- Robot Platforms -- A Human-Like Robot Torso ZAR5 with Fluidic Muscles: Toward a Common Platform for Embodied AI -- The iCub Cognitive Humanoid Robot: An Open-System Research Platform for Enactive Cognition -- Intelligent Mobile Manipulators in Industrial Applications: Experiences and Challenges -- Art and AI -- The Dynamic Darwinian Diorama: A Landlocked Archipelago Enhances Epistemology.

| Sommario/riassunto | This Festschrift volume, published in celebration of the 50th Anniversary of Artificial Intelligence, includes 34 refereed papers written by leading researchers in the field of Artificial Intelligence. The papers were carefully selected from the invited lectures given at the 50th Anniversary Summit of AI, held at the Centro Stefano Franscini, Monte VeritA, Ascona, Switzerland, July 9-14, 2006. The summit provided a venue for discussions on historical, business, political and educational perspectives of AI; scientific exchange on the state of the art; speculations about the future; contributions by researchers from different but related areas; presentations of the latest research by top scientists in the field; as well as many informal discussions among the participants and visitors. The selected papers reflect the breadth of the topics presented and discussed at the summit, covering subjects ranging from the history and prospects of AI, to speech recognition and processing, linguistics, bionics, and consciousness. The papers are organized in topical sections on Historical and Philosophical Issues; Information Theory and Quantification; Morphology and Dynamics; Neurorobotics; Machine Intelligence, Cognition, and Natural Language Processing; Human-Like Intelligence: Motivation, Emotions, and Consciousness; Robot Platforms; and Art and AI. |