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Nota di contenuto	From Annotated Multimodal Corpora to Simulated Human-Like Behaviors -- Modeling Embodied Feedback with Virtual Humans -- The Recognition and Comprehension of Hand Gestures - A Review and Research Agenda -- Modeling Facial Expression of Uncertainty in Conversational Animation -- The Evolution of Cognition — From First Order to Second Order Embodiment -- History and Current Researches on Building a Human Interface for Humanoid Robots -- Typological and

Computational Investigations of Spatial Perspective -- Modeling Multimodal Communication as a Complex System -- Con-tact – On the Problem of the Absence of Eye Contact and Physical Contact in Virtual Interaction -- True Emotion vs. Social Intentions in Nonverbal Communication: Towards a Synthesis for Embodied Conversational Agents -- Facial Deception in Humans and ECAs -- Theory of Mind as a Theoretical Prerequisite to Model Communication with Virtual Humans -- Listening Heads -- Dynamic Field Theory and Embodied Communication -- 'I, Max' - Communicating with an Artificial Agent -- Talking to Virtual Humans: Dialogue Models and Methodologies for Embodied Conversational Agents -- Can't Get You Out of My Head: A Connectionist Model of Cyclic Rehearsal.

Sommario/riassunto

Two main types of embodied agents are playing an increasingly important role in cognitive interaction technology: virtual humans inhabiting simulated environments and humanoid robots inhabiting the real world. The need to develop an integrated perspective of embodiment in communication, establishing bridges between lower-level, sensorimotor functions and a range of higher-level, communicative functions involving language and bodily action has led to the exploration of how artificial agents can advance our understanding of key aspects of embodiment, cognition, and communication. The 17 articles in this state-of-the-art survey address artificial intelligence research on communicative agents and also provide an interdisciplinary perspective from linguistics, behavioral research, theoretical biology, philosophy, communication psychology, and computational neuroscience. The topics include studies on human multimodal communication; the modeling of feedback signals, facial expression, eye contact, and deception; the recognition and comprehension of hand gestures and head movements; communication interfaces for humanoid robots; the evolution of cognition and language; emotion and social appraisal in nonverbal communication; dialogue models and methodologies; theory of mind and intentionality; complex systems, dynamic field theory, and connectionist modeling.