

Contents

Designing a Robot Cognitive Architecture with Concurrency and Active Perception / 1	
<i>D. Paul Benjamin, Deryle Lonsdale, and Damian Lyons</i>	
Social Learning in Humans, Animals and Agents / 9	
<i>Daphna Buchsbaum, Bruce Blumberg, and Cynthia Breazeal</i>	
Using Models of Cognition in HRI Evaluation and Design / 17	
<i>Michael A. Goodrich</i>	
Robots that Work in Collaboration with People / 25	
<i>Guy Hoffman and Cynthia Breazeal</i>	
Making Decisions about Motion / 31	
<i>Jamie Lennon and Ella Atkins</i>	
Multilevel Emotion Modeling for Autonomous Agents / 39	
<i>Andrea H. Marpaung and Christine L. Lisetti</i>	
A Cognitive Robotics Approach to Identifying Perceptually Indistinguishable Objects / 47	
<i>John F. Santore and Stuart C. Shapiro</i>	
Humanoids, from Interfaces to Intelligence. Really? A Philosophical Statement on Retrograding or Scientists Caught Back-Peddling / 55	
<i>Colin T. Schmidt</i>	
Facilitating Interaction among Humans and Immobiles about the Job / 61	
<i>Debra Schreckenghost and Cheryl Martin</i>	
A Biologically Inspired Adaptive Working Memory for Robots / 68	
<i>Marjorie Skubic, David Noelle, Mitch Wilkes, Kazuhiko Kawamura, and James M. Keller</i>	
From Embodiments Back to their Minds: An Affective Abstraction / 76	
<i>Zippora Arzi-Gonczarowski</i>	
Layered Cognitive Architectures: Where Cognitive Science Meets Robotics / 82	
<i>Pete Bonasso and Mike Freed</i>	
Semantic SLAM for Collaborative Cognitive Workspaces / 85	
<i>Frank Dellaert and David Bruemmer</i>	
Peer-to-Peer Human-Robot Interaction for Space Exploration / 87	
<i>Terrence Fong and Illah Nourbakhsh</i>	
Behavior Implicit Communication for Human-Robot Interaction / 91	
<i>Francesca Giardini and Cristiano Castelfranchi</i>	
A Framework for Understanding Verbal Route Instructions / 97	
<i>Matt MacMahon</i>	

Which Came First: The User or the Interface? Keeping the Human
in the Loop from Design Phase to Finished Product / 103

Dennis Perzanowski

Robot Learning with Predictions of Operator Intent / 107

Michael T. Rosenstein, Andrew H. Fagg, and Roderic A. Grupen

Grounding Language in the World: Signs, Schemas, and Meaning / 109

Deb Roy

Cognitive Primitives for Mobile Robots / 110

Ethan J. Tira-Thompson, Neil S. Halelamien,

Jordan J. Wales, and David S. Touretzky

A Viewpoint on Embodied Synthetic Agency / 112

Ovi Chris Rouly