AI-Driven Technologies for Services-Oriented Computing

Papers from the AAAI Workshop

Technical Report  WS-06-01

AAAI Press
American Association for Artificial Intelligence
AI-Driven Technologies for Services-Oriented Computing

Papers from the AAAI Workshop

Prashant Doshi, Richard Goodwin, and Amit Sheth, Cochairs

Technical Report  WS-06-01

AAAI Press
Menlo Park, California
Organizing Committee

Prashant Doshi, (cochair) University of Georgia
Richard Goodwin, (cochair) IBM T. J. Watson Research Center
Amit Sheth, (cochair), University of Georgia

Program Committee

Rama Akkiraju, IBM T. J. Watson Research Center, US
Nirmit Desai, North Carolina State University, US
John Domingue, Knowledge Media Institute, UK
Michael Huhns, University of South Carolina, US
Vipul Kashyap, Partners Healthcare, US
Joseph Kopena, Drexel University, US
Juhnyoung Lee, IBM T. J. Watson Research Center, US
David Martin, SRI International, US
E. Michael Maximilien, IBM Almaden Research Center, US
Sheila McIlraith, University of Toronto, Canada
Muninder Singh, North Carolina State University, US
Rainer Unland, University of Duisberg-Essen, Germany
Kunal Verma, University of Georgia, US

This AAAI–06 Workshop was held July 16, 2006,
in Boston, Massachusetts USA
Contents

SEMAPLAN: Combining Planning with Semantic Matching to Achieve Web Service Composition / 1
Rama Akkiraju, Biplav Srivastava, Anca-Andreea Ivan, Richard Goodwin, and Tanveer Syeda-Mahmood

The Logic for Decidable Reasoning about Services / 9
Yilan Gu and Mikhail Soutchanski

Adaptive Web Processes Using Value of Change Computations / 19
John Harney and Prashant Doshi

Two-Phased Web Service Discovery / 26
Ruben Lara

Interaction Design in Agent-Based Service-Oriented Computing Systems / 36
José Ghislain Quenum, Fuyuki Ishikawa, and Shinichi Honiden

Modeling Web Service Composition using Symbolic Transition Systems / 44
Jyotishman Pathak, Samik Basu, and Vasant Honavar

A Mixed Initiative Framework for Semantic Web Service Discovery and Composition / 52
Jinghai Rao, Dimitar Dimitrov, Paul Hofmann, and Norman Sadeh

Plan Analysis for Enabling Service Oriented Computing / 60
Biplav Srivastava

Optimal Adaptation in Web Processes with Coordination Constraints / 65
Kunal Verma, Prashant Doshi, Karthik Gomadam, John Miller, and Amit Sheth

Composing Nested Web Processes Using Hierarchical Semi-Markov Decision Processes / 75
Haibo Zhao and Prashant Doshi