

# Contents

## Cooperative Information Systems 2015 (CoopIS) 2015

### CoopIS 2015 PC Co-Chairs' Message

### CoopIS in the Cloud

Collaborative Autonomic Management of Distributed Component-Based Applications . . . . .	3
<i>Nabila Belhaj, Imen Ben Lahmar, Mohamed Mohamed, and Djamel Belaïd</i>	
An Efficient Optimization Algorithm of Autonomic Managers in Service-Based Applications. . . . .	19
<i>Leila Hadded, Faouzi Ben Charrada, and Samir Tata</i>	
TrustedMR: A Trusted MapReduce System Based on Tamper Resistance Hardware . . . . .	38
<i>Quoc-Cuong To, Benjamin Nguyen, and Philippe Pucheral</i>	

### Social Networking Applications of CoopIS

Similarity and Trust to Form Groups in Online Social Networks . . . . .	57
<i>Pasquale De Meo, Fabrizio Messina, Giuseppe Pappalardo, Domenico Rosaci, and Giuseppe M.L. Sarnè</i>	
Supporting Peer Help in Collaborative Learning Environments: A Discussion Based on Two Case Studies . . . . .	76
<i>Luana Müller, Leticia Lopes Leite, and Milene Selbach Silveira</i>	
Finding Collective Decisions: Change Negotiation in Collaborative Business Processes . . . . .	90
<i>Walid Fdhila, Conrad Indiono, Stefanie Rinderle-Ma, and Rudolf Vetschera</i>	
Real-Time Relevance Matching of News and Tweets. . . . .	109
<i>Sei Onishi, Yuto Yamaguchi, and Hiroyuki Kitagawa</i>	

### Information and Knowledge Quality in CoopIS

Context-Aware Process Injection: Enhancing Process Flexibility by Late Extension of Process Instances . . . . .	127
<i>Nicolas Mundbrod, Gregor Grambow, Jens Kolb, and Manfred Reichert</i>	

A Multi-view Learning Approach to the Discovery of Deviant Process Instances . . . . .	146
<i>Alfredo Cuzzocrea, Francesco Folino, Massimo Guarascio, and Luigi Pontieri</i>	
A Genetic Algorithm for Automatic Business Process Test Case Selection . . .	166
<i>Kristof Böhmer and Stefanie Rinderle-Ma</i>	
Discovering BPMN Models with Sub-Processes and Multi-Instance Markers . . . . .	185
<i>Yuquan Wang, Lijie Wen, Zhiqiang Yan, Bo Sun, and Jianmin Wang</i>	
<b>Information and Knowledge Quality in CoopIS</b>	
Information Quality in Dynamic Networked Business Process Management . . .	202
<i>Mohammad R. Rasouli, Rik Eshuis, Jos J.M. Trienekens, Rob J. Kusters, and Paul W.P.J. Grefen</i>	
Utilizing the Hive Mind – How to Manage Knowledge in Fully Distributed Environments . . . . .	219
<i>Thomas Bach, Muhammad Adnan Tariq, Christian Mayer, and Kurt Rothermel</i>	
$\partial u \partial u$ Multi-Tenanted Framework: Distributed Near Duplicate Detection for Big Data. . . . .	237
<i>Pradeeban Kathiravelu, Helena Galhardas, and Luís Veiga</i>	
Multilevel Mapping of Ecosystem Descriptions: Short Paper . . . . .	257
<i>Matt Selway, Markus Stumptner, Wolfgang Mayer, Andreas Jordan, Georg Grossmann, and Michael Schrefl</i>	
<b>Interoperability of CoopIS</b>	
Determining the Quality of Product Data Integration . . . . .	267
<i>Julian Tiedeken, Thomas Bauer, Joachim Herbst, and Manfred Reichert</i>	
Inference Control in Data Integration Systems . . . . .	285
<i>Mokhtar Sellami, Mohand-Said Hacid, and Mohamed Mohsen Gammoudi</i>	
Integrated Process Oriented Requirements Management . . . . .	303
<i>Nikolaus Wintrich, Patrick Gering, and Malte Meissner</i>	

## Various Aspects of CoopIS

Supporting Structural Consistency Checking in Adaptive Case Management . . . . .	311
<i>Christoph Czepa, Huy Tran, Uwe Zdun, Stefanie Rinderle-Ma, Thanh Tran Thi Kim, Erhard Weiss, and Christoph Ruhsam</i>	
A Probabilistic Unified Framework for Event Abstraction and Process Detection from Log Data . . . . .	320
<i>Bettina Fazzinga, Sergio Flesca, Filippo Furfaro, Elio Masciari, and Luigi Pontieri</i>	
Property Hypergraphs as an Attributed Predicate RDF . . . . .	329
<i>Dewi W. Wardani and Josef Küng</i>	
Rewinding and Repeating Scientific Choreographies . . . . .	337
<i>Andreas Weiß, Vasilios Andrikopoulos, Michael Hahn, and Dimka Karastoyanova</i>	
Enabling DevOps Collaboration and Continuous Delivery Using Diverse Application Environments . . . . .	348
<i>Johannes Wettinger, Vasilios Andrikopoulos, and Frank Leymann</i>	

## Ontologies, DataBases, and Applications of Semantics (ODBASE) 2015

### ODBASE 2015 PC Co-Chairs' Message

#### Ontology-based Information Modeling and Extraction

COBieOWL, an OWL Ontology Based on COBie Standard . . . . .	361
<i>Tarcisio M. Farias, Ana Roxin, and Christophe Nicolle</i>	
A Semantic Graph Model. . . . .	378
<i>Liu Chen, Ting Yu, and Mengchi Liu</i>	
An Approach for Ontology Population Based on Information Extraction Techniques: Application to Cultural Heritage (Short Paper) . . . . .	397
<i>Riyadh Benammar, Alain Trémeau, and Pierre Maret</i>	

#### Semantic Modeling, Matching, and Querying Over Linked Open Data

Matchmaking Public Procurement Linked Open Data . . . . .	405
<i>Jindřich Mynarz, Vojtěch Svátek, and Tommaso Di Noia</i>	
Preference Queries with Ceteris Paribus Semantics for Linked Data. . . . .	423
<i>Jessica Rosati, Tommaso Di Noia, Thomas Lukasiewicz, Renato De Leone, and Andrea Maurino</i>	

## Semantic Support for Processing Web Services and Social Networks

Modeling and Retrieving Linked RESTful APIs: A Graph Database Approach . . . . .	443
<i>Sahar Aljalbout, Omar Boucelma, and Sana Sellami</i>	
Crowdsourcing for Web Service Discovery . . . . .	451
<i>Fatma Slaimi, Sana Sellami, Omar Boucelma, and Ahlem Ben Hassine</i>	
Web Services Discovery Based on Semantic Tag . . . . .	465
<i>Sana Sellami and Hanane Becha</i>	
A Model for Identifying Misinformation in Online Social Networks . . . . .	473
<i>Sotirios Antoniadis, Iouliana Litou, and Vana Kalogeraki</i>	

## Semantic Data Processing and Access in Emerging Domains

Traceability of Tightly Coupled Phases of Semantic Data Warehouse Design . . . . .	483
<i>Selma Khouri and Ladjel Bellatreche</i>	
Aggregation Operators in Geospatial Queries for Open Street Map . . . . .	501
<i>Jesús M. Almendros-Jiménez, Antonio Becerra-Terón, and Manuel Torres</i>	
Provalets: OSGi-based Prova Agents for Rule-Based Data Access . . . . .	519
<i>Adrian Paschke</i>	

## Ontology Matching and Alignment

Light-Weight Cross-Lingual Ontology Matching with LYAM++ . . . . .	527
<i>Abdel Nasser Tigrine, Zohra Bellahsene, and Konstantin Todorov</i>	
ABOM and ADOM: Arabic Datasets for the Ontology Alignment Evaluation Campaign. . . . .	545
<i>Abderrahmane Khiat, Gayo Diallo, Beyza Yaman, Ernesto Jiménez-Ruiz, and Moussa Benaïssa</i>	

## Cloud and Trusted Computing 2015 (C&TC) 2015

### C&TC 2015 PC Co-Chairs' Message

All You Need is Trust – An Analysis of Trust Measures Communicated by Cloud Providers . . . . .	557
<i>Julian Gantner, Lukas Demetz, and Ronald Maier</i>	

Modelling the Live Migration Time of Virtual Machines . . . . .	575
<i>Kateryna Rybina, Waltenegus Dargie, Subramanya Umashankar, and Alexander Schill</i>	
CloudIDEA: A Malware Defense Architecture for Cloud Data Centers . . . . .	594
<i>Andreas Fischer, Thomas Kittel, Bojan Kolosnjaji, Tamas K. Lengyel, Waseem Mandarawi, Hermann de Meer, Tilo Müller, Mykola Protsenko, Hans P. Reiser, Benjamin Taubmann, and Eva Weishäupl</i>	
S-Test: A Framework for Services Testing . . . . .	612
<i>Nabil El Ioini</i>	
Design and Implementation of a Trust Service for the Cloud . . . . .	620
<i>Julien Lacroix and Omar Boucelma</i>	
Security Aspects of de-Materialized Local Public Administration Processes. . . .	639
<i>Giancarlo Ballauco, Paolo Ceravolo, Ernesto Damiani, Fulvio Frati, and Francesco Zavatarelli</i>	
Monitoring-Based Certification of Cloud Service Security . . . . .	644
<i>Maria Krotsiani, George Spanoudakis, and Christos Kloukinas</i>	
Balancing Trust and Risk in Access Control. . . . .	660
<i>Alessandro Armando, Michele Bezzi, Francesco Di Cerbo, and Nadia Metoui</i>	
<b>Author Index . . . . .</b>	<b>677</b>

On the Move to Meaningful Internet Systems: OTM 2015  
Conferences

Confederated International Conferences: CoopIS,  
ODBASE, and C&TC 2015, Rhodes, Greece, October  
26-30, 2015. Proceedings

Debruyne, C.; Panetto, H.; Meersman, R.; Dillon, T.;  
Weichhart, G.; An, Y.; Ardagna, C.A. (Eds.)

2015, XXV, 678 p. 236 illus. in color., Softcover

ISBN: 978-3-319-26147-8