



## **eKNOW 2015**

The Seventh International Conference on Information, Process, and Knowledge  
Management

February 22 - 27, 2015

Lisbon, Portugal

### **eKNOW 2015 Editors**

Dirk Malzahn, Dirk Malzahn Ltd / HfH University, Germany

Conceição Granja, Norwegian Centre for Integrated Care and Telemedicine,  
University Hospital of North Norway, Norway

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2015) by International Academy, Research, and Industry Association (IARIA)  
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2015)

International Academy, Research, and Industry Association (IARIA)  
412 Derby Way  
Wilmington, DE 19810

Phone: (408) 893-6407  
Fax: (408) 527-6351

[petre@iaria.org](mailto:petre@iaria.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## EKNOW 1: PROCESS ANALYSIS AND MODELING

<b>Enhanced Stakeholder Socialization Using Common Language in Agile BPM: Living Business Processes Models Instead of Rigid Documentations</b> .....	1
<i>Marco Mevius, Erich Ortner, Peter Wiedmann</i>	
<b>A Versioning and Commenting Approach for Enhancing Group Efficiency in Collaborative Web-Based Business Process Modeling Tools</b> .....	9
<i>Justus Holler</i>	
<b>An Ontology for Formalizing and Automating the Strategic Planning Process</b> .....	17
<i>Juan Luis Dalmau-Espert, Faraon Llorens-Largo, Rafael Molina-Carmona</i>	
<b>A Usability Evaluation Methodology of Digital Library</b> .....	23
<i>Luz A. Sánchez-Gálvez, Juan M. Fernández-Luna</i>	

## EKNOW 2: KNOWLEDGE FUNDAMENTALS

<b>LOM, a Locally Oriented Metric which Improves Accuracy in Classification Problems</b> .....	29
<i>Julio Revilla, Evaristo Kahoraho</i>	
<b>First Steps Towards a Formal Analysis of Law</b> .....	36
<i>Tom Maarten Van Engers, Robert Van Doesburg</i>	
<b>Study on Web Analytics Utilizing User Environment Segmentation in “Business to Business” Site</b> .....	43
<i>Akiyuki Sekiguchi, Kazuhiko Tsuda</i>	
<b>Tacit and Explicit Knowledge in Software Development Projects: Towards a Conceptual Framework for Analysis</b> .....	49
<i>Hanna Dreyer, Martin Wynn, Robin Bown</i>	
<b>Knowledge Processes in German Hospitals. First Findings from the Network for Health Services Research Metropolitan Region Bremen-Oldenburg</b> .....	53
<i>Lars Rölker-Denker, Insa Seeger, Andreas Hein</i>	

## EKNOW 3: KNOWLEDGE IDENTIFICATION AND DISCOVERY

<b>S-Grouper A Semantic Based System to Semi-Automatic Encode Hospital Activities</b> .....	58
<i>Roberta Cuel, Andrea Francesconi, Filippo Nardelli, Giampaolo Armellini</i>	
<b>ChoreMAP: Extracting And Displaying Visual Database Summaries Tool</b> .....	60
<i>Ibtissem Cherni, Sami Faiz, Robert Laurini, Mariem Warghi</i>	
<b>The Knowledge Reuse in an Industrial Scenario: A Case Study</b> .....	66
<i>Gianfranco E. Modoni, Enrico G. Caldarola, Walter Terkaj, Marco Sacco</i>	
<b>ARPPA: Mining Professional Profiles from LinkedIn Using Association Rules</b> .....	72
<i>Paula Silva, Wladimir Brandão</i>	
<b>Towards Improving Students' Attitudes to Lectures and Getting Higher Grades –With Analyzing the Usage of Keywords in Class-Evaluation Questionnaire--</b> .....	78
<i>Toshiro Minami, Yoko Ohura</i>	

## EKNOW 4: INFORMATION MANAGEMENT

<b>Supporting Provenance in Climate Science Research</b> .....	84
<i>Brett Yasutake, Niko Simonson, Jason Woodring, Nathan Duncan, William Pfeffer, Hazeline Asuncion, Munehiro Fukuda, Eric Salathe</i>	
<b>High-Level Tutorial I to Claimed Inventions’ post-Alice SPL Testing (PRESENTATION)</b> .....	N/A
<i>Sigram Schindler</i>	
<b>Demo for V4C Project Consortium – A Digital Coupons Management System (DEMO)</b> .....	N/A
<i>Jorge Araújo, Gonçalo Dias, Helder Gomes, Jorge Gonçalves, Daniel Magueta, Fábio Marques, Ciro Martins, Mário Rodrigues</i>	

<b>Discount Coupons Dematerialization: A Comprehensive Literature Review</b> .....	92
<i>Gonçalo Paiva Dias, Helder Gomes, Jorge Gonçalves, Daniel Magueta, Fábio Marques, Ciro Martins, Mário Rodrigues, Jorge Araújo</i>	

## **EKNOW 5: DECISION SUPPORT SYSTEMS**

<b>Knowledge Intensive Evolutionary Algorithms</b> .....	99
<i>François De Bertrand De Beuvron, Carlos Catania, Cecilia Zanni-Merk</i>	
<b>Guidelines for Social Media Mining for Innovation Purposes. Experiences and Recommendations from Literature and Practice</b> .....	106
<i>Robert Eckhoff, Mark Markus, Markus Lassnig, Sandra Schön</i>	
<b>The Application of Machine Learning to Problems in Graph Drawing - A Literature Review</b> .....	112
<i>Raissa Dos Santos Vieira, Hugo Alexandre Dantas Do Nascimento, Wanderson Barcelos Da Silva</i>	
<b>Game Refinement Theory and Multiplayer Games: Case Study Using UNO</b> .....	119
<i>Alfian Ramadhan, Hiroyuki Iida, Nur Ulfa Maulidevi</i>	

## **EKNOW 6: PROCESS AND KNOWLEDGE MANAGEMENT**

<b>ERP Implementation in a Developing World Context: a Case Study of the Waha Oil Company, Libya</b> .....	126
<i>Hosian Akeel, Martin Wynn</i>	
<b>The Key Contributions of the Operations Management and Information Systems Disciplines to Business Process Management</b> .....	132
<i>Philippe Marchildon, Pierre Hadaya</i>	
<b>Mapping the Fuzzy Semantic Model into Fuzzy Object Relational Database Model</b> .....	138
<i>Sabrina Jandoubi, Afef Bahri, Salem Chakhar, Nadia Yacoubi-Ayadi</i>	
<b>Knowledge and Technology Transfer in the Center for Scientific and Technical Information of the Wrocław University of Technology</b> .....	144
<i>Anna Walek, Katarzyna Kozłowska</i>	

## **EKNOW 7: KNOWLEDGE SEMANTICS PROCESSING AND ONTOLOGY**

<b>ODINet Online Data Integration NETWORK: An Innovative Ontology-Based Data Search Engine</b> .....	152
<i>Stefania Pieroni, Michela Franchini, Sabrina Molinaro, Alessandro Greco, Francesco Pitto, Moreno Toigo, Luca Caterino</i>	
<b>If Experience is Worth, How Experts Behave in a Manga Case</b> .....	159
<i>Satoshi Takahashi, Toru B. Takahashi, Atsushi Yoshikawa, Takao Terano</i>	
<b>Compound Noun Polysemy and Sense Enumeration in WordNet</b> .....	166
<i>Abed Alhakim Freihat, Biswanath Dutta, Fausto Giunchiglia</i>	
<b>Automatic Diagrammatic Multiple Choice Question Generation from Knowledge Bases</b> .....	172
<i>Khalil Bouzekri, Qiang Liu, Husam Yasin, Benjamin Min Xian Chu, Dickson Lukose</i>	
<b>Author Index</b>	