IADIS International Conference Information Systems 2011

Co-located with Mobile Learning 2011 and E-Society 2011

Avila, Spain 11-13 March 2011

Editors:

Miguel Baptista Nunes Philip Powell **Pedro Isaias**

ISBN: 978-1-5108-1070-9

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© (2011) by the International Association for Development of the Information Society (IADIS) All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact the International Association for Development of the Information Society (IADIS) at the address below.

International Association for Development of the Information Society (IADIS) Rua Sao Sebastiao Da Pedreira No. 100, 30, 1050-209 Lisbon, Portugal

Phone: 351 21 3151373 Fax: 351 21 3151244

secretariat@iadis.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 Web: www.proceedings.com

TABLE OF CONTENTS

FOREWORD	xi
PROGRAM COMMITTEE	xiii
KEYNOTE LECTURE	xvii

FULL PAPERS

ASSESSING THE FEASIBILITY OF IT-BASED KNOWLEDGE MANAGEMENT INITIATIVES: STEPS TOWARDS A BEHAVIOURAL EMPHASIS Stephen Corea	3
ARE DECISION TREES THE BEST TOOL FOR IMPROVEMENT OF THE CLASSIFICATION ACCURACY RATES AND EXPLAINABILITY OF LOAN GRANTING DECISIONS? Jozef Zurada	13
A NOVEL WEIGHTING SCHEME FOR A MULTI-CRITERIA RATING RECOMMENDER SYSTEM Pakapon Tangphoklang, Saranya Maneeroj and Atsuhiro Takasu	21
AN INFORMATION PROCESSING CONCEPT FOR PRODUCT DEVELOPMENT Philip Hollstein	30
COINS: A MODELLING APPROACH FOR RECORDING & REPLAYING COMPLEX INFORMATION Erqiang Zhou, Bing Wu, Yi Ding and Jianfeng Wu	37
DATA EXTRACTION IN SERVICE-ORIENTED INFORMATION SYSTEM Sylvain Rakotomalala, Elie Abi-Lahoud and Kokou Yétongnon	45
AN EXTENSIVE READING SYSTEM BY USING FUZZY LOGIC AND MEMORY CYCLE THEORIES Tung-Cheng Hsieh, Tzone-I Wang and Chien-Yuan Su	53
CYBERNETIC E-LEARNING MANAGEMENT MODEL – MANAGING E-LEARNING IN INTERNATIONAL ACTING ORGANIZATIONS Bernd Hilgarth	61
STRATEGIC INFORMATION SYSTEMS PLANNING AND ENVIRONMENTAL UNCERTAINTY: THE CASE OF SOUTH AFRICAN SMALL MICRO AND MEDIUM ENTERPRISES Luka M. Musangu and Ray M. Kekwaletswe	70

ENTERPRISE RESOURCE PLANNING (ERP) IMPLEMENTATION: ANY COMPETITIVE ADVANTAGE FOR THE COMPANY? (CASE STUDY: ERP IMPLEMENTATION IN INDONESIA) Gede Rasben Dantes and Zainal Arifin Hasibuan	79
OLD AGE AND INTERNET ACCESS John Murnane	87
THE STRATEGIC ROLE OF ICT IN THE SOUTH AFRICAN PUBLIC SERVICE: THE CIO POSITIONING WITHIN THE ORGANIZATIONAL STRUCTURE John Otumile and Ray Kekwaletswe	95
CUSTOMIZATION OF GLOBAL SOFTWARE SYSTEM FOR HEALTH CARE MANAGEMENT: MANAGING LOCAL ORGANIZATION-EXTRINSIC FACTORS Zeferino Benjamim Saugene	103
A MODEL-BASED MONITORING ARCHITECTURE FOR HETEROGENEOUS ENTERPRISE SERVICES AND INFORMATION SYSTEMS Félix Cuadrado, Rodrigo García-Carmona, Juan C. Dueñas and Álvaro Navas	114
A SOTWARE TOOL FOR CONTENT-BASED ACCESS CONTROL Liliana Rosero, Jesús Aranda and Michel Riguidel	122
NO NEED TO TYPE SLOWLY CHANGING DIMENSIONS Vasco Santos and Orlando Belo	129
MVC BASED BEHAVIOR DIAGRAMS AS KEY ARTIFACTS FOR WEB APPLICATION DESIGN Adelaide Bianchini, Maruja Ortega and Ascánder Suárez	137
QUALITY OF SOFTWARE REFERENCE ARCHITECTURES Jos Trienekens, Samuil Angelov, Paul Grefen and Rob Kusters	145
A STUDY OF SUCCESSFUL OUTSOURCING FACTORS Peng Zhou and Hareton K.N. Leung	152
THE TAXONOMY OF REQUIREMENTS FOR CONDUCTING ELICITATION Takako Nakatani, Narihito Kondo, Mari Inoki, Michio Tsuda and Keiichi Katamine	161
A DECISION SUPPORT SYSTEM FOR E-BUSINESS MODELS ASSESSMENT AND SELECTION <i>Hussein H. Fakhry</i>	169
AN APPROACH FOR IMPLEMENTING ENTERPRISE 2.0 PLATFORMS: METHODOLOGY AND SELECTED RESULTS OF PILOT PROJECTS Andreas Auinger, Alexander Hochmeier and Dietmar Nedbal	179
REFERENCE MODELS FOR SERVICE ORIENTED ARCHITECTURES Eva Söderström, Martin Henkel and Erik Perjons	187
A BUSINESS AWARE SERVICE IDENTIFICATION AND ANALYSIS APPROACH Leonardo Guerreiro Azevedo, Fernanda Baiao, Flávia Maria Santoro and Jairo Souza	H 196

SHORT PAPERS

AN OPEN SOURCE FRAMEWORK FOR FUZZY REPRESENTATION AND QUERYING IN FUZZY DATABASES José Enrique Pons Frías, Olga Pons Capote and Ignacio José Blanco Medina	207
DIGITAL RIGHTS MANAGEMENT IN THE EDUCATIONAL CONTEXT - AN OLD/NEW CHALLENGE Joaquim Marques and Carlos Serrão	212
THE UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES AND ITS EFFECTS IN BUSINESS COMMUNICATION AND DECISION-MAKING ACTIVITIES AT SMES Yasin Ozcam and Erman Coskun	217
VISUALIZATION OF WEBSITE USAGE WITH CONSIDERATION OF TREND AND RELATIONSHIP Ryosuke Saga, Takao Miyamoto, Hiroshi Tsuji and Kazunori Matsumoto	222
LEARNING OF MULTIPLE TREE STRUCTURED PATTERNS USING CLUSTERING AND EVOLUTION Yoshiaki Otsuka, Tetsuhiro Miyahara and Tetsuji Kuboyama	227
CHALLENGES OF ICT SOLUTIONS: SMES WITHIN THE HEALTHCARE SECTOR – A NIGERIAN CASE STUDY Hilary Berger and Noah O Adejidi	232
BPM AND REQUIREMENTS ELICITATION AT MULTIPLE LEVELS OF ABSTRACTION: A REVIEW Carlos Monsalve, Alain April and Alain Abran	237
COGNIBASE: A NEW REPRESENTATION MODEL TO SUPPORT ONTOLOGY DEVELOPMENT Ali Rahnama and Ahmad Abdollahzadeh Barforoush	243
E-COMMERCE ADOPTION AND UTILISATION IN DEVELOPING COUNTRIES: AN EXPLORATORY INVESTIGATION FROM A GCC COUNTRY Mubarak Aldwsry and Pam Mayhew	249
PROSPECTS OF BLENDED DISTANCE LEARNING: EXPERIENCES WITH AN ONLINE BUSINESS MANAGEMENT CLASS AT THE UNIVERSITY OF LA ROCHELLE IN FRANCE Joseph Egwurube	255
EXPLORING AND COMPARING LEARNER'S PERCEPTION AND READINESS FOR ELECTRONIC/MOBILE LEARNING AT COLLEGES IN SAUDI ARABIA Hasnain Zafar Baloch, Abdullah Saad AL-Malaise AL-Ghamdi, Azizah Abdul Rahman and Noorminshah A. Ahad	261
IMPROVING THE PERFORMANCE OF WEB SERVICES IN MOBILE COMPUTING	266

Iehab Al Rassan, Jacob Adeniyi and Maher Al Sheikh

EQUIPMENT OPTIMIZATION OF THE SOLDIER SYSTEM WITH EVIDENTIAL REASONING Yixing Shan, Lili Yang and Roy Kalawsky	271
METHOD FOR VALIDATING APPROPRIATE REALIZATION OF SCENARIOS USING OPERATION HISTORIES Junko Shirogane and Yoshiaki Fukazawa	276
COMPARISON OF GOVERNANCE APPROACHES FOR HIGHLY COMPLEX ENTERPRISE ARCHITECTURES Oliver Daute and Stefan Conrad	281
E-COMMERCE WEBSITE FRAMEWORK FOR ENHANCING WEB CONTENT ACCESSIBILITY TO PEOPLE WITH DISABILITIES Nuttiya Rakwong and Watchara Chantatub	287
THE TWO-SEGMENTAL MODEL OF SOFTWARE PACKAGES LIFECYCLE Jędrzej Wieczorkowski and Przemysław Polak	291
TOWARDS A MODELING METHOD FOR MANAGING VARIABILITY IN SOA Boutaina Chakir and Mounia Fredj	296
A FRAMEWORK FOR GUIDING TOWARDS ADOPTING APPROPRIATE IMS SOLUTIONS IN DEVELOPING COUNTRIES Faouzi Kamoun, Naoufel Werghi and Mohammed Al Blushi	301
AN EXPERIENCE OF OPEN SOURCE DEVELOPMENT FOR THE HISTORICAL HERITAGE DOMAIN Elisa Yumi Nakagawa, Elaine Parros Machado de Sousa and José Carlos Maldonado	307
PERSONAL EXPERIENCE AS REFLECTIVE RESEARCH METHOD Wenshin Chen	312
TOWARDS A CRITICAL REALIST EPISTEMOLOGY FOR RESEARCH INTO E- GOVERNMENT SYSTEMS Nixon Muganda Ochara	316

REFLECTION PAPERS

MINING SOCIAL NETWORK DATA FOR DECISION SUPPORT PURPOSES IN A TEACHING CONTEXT Souhayl Machach, Raddouane Chiheb and Ismail Kassou	325
COMMUNITIES OF PRACTICE, TELEMEDICINE AND COLLABORATIVE TECHNOLOGIES IN PALLIATIVE CARE: A WORK IN PROGRESS Julian Sims	330
OVERCOMING CULTURAL BARRIERS TO KNOWLEDGE MANAGEMENT AT SCIENTEX*: AN EMPIRICAL STUDY Angela Lauener	335

SERVICE ORIENTED ARCHITECTURE – A BENEFIT FOR SME Hans-Peter Steinbacher	339
THE INFORMATION SYSTEM AND ATTENTION MANAGEMENT INSIDE A SMALL ENTERPRISE (BASED ON RESEARCH IN THE NORTH-EASTERN PART	343
OF POLAND)	
Joanna M. Moczydłowska	

POSTERS

ACTIVITY ANALYSIS OF HEALTH RECORD SYSTEMS Nhlanhla Sibanyoni	349
APPLICATION FOR TEXT-BASED COMPARISON ANALYSIS USING FREQUENCY AND CO-OCCURRENCE TREND-GRAPH Ryosuke Saga, Seiko Takamizawa, Hiroshi Tsuji and Kazunori Matsumoto	352
IDENTIFYING AUTHORS OF TEXT BASED ON ASSOCIATION RULES Hiroshi Sugimura, Ryosuke Saga and Kazunori Matsumoto	355
SIMILARITY BASED TIME-SERIES DATA EXPLORATION Hiroshi Sugimura and Kazunori Matsumoto	359
VALIDATION FOR MODEL CONSTRUCTION PROCESS BY USING CREATIVITY METHOD Kodai Kitami, Ryosuke Saga and Kazunori Matsumoto	362

DOCTORAL CONSORTIUM

ANTECEDENTS FOR INTERORGANIZATIONAL INFORMATION SHARING: A PROPOSAL FOR RESEARCH Esther Lage and Bráulio Alturas	367
DEFINING THE FIELD OF MULTIMEDIA INFOGRAPHICS Cláudio Gabriel Inácio Ferreira and Paulo David da Silva Simões	372

AUTHOR INDEX