ADVANCES ON INFORMATION PROCESSING AND MANAGEMENT

CONFERENCE ORGANIZERS INSTITUTES

The International Conference on Integrated Information is supported by the following Institutes:

Emerald Group Publishing Limited
Technological educational Institute of Athens, Greece
University of Peloponnese, Greece
National And Kapodistrian University of Athens, Greece
Mednet Hellas, The Greek Medical Network
2nd AMICUS Workshop

INTEGRATED INFORMATION

International Conference on Integrated Information

Kos, Greece September, 29 – October, 3 2011

EDITORS

Georgios A. Giannakopoulos *Technological Educational Institute of Athens, Greece*

Damianos P. Sakas *University of Peloponnese, Greece*

All papers have been peer-reviewed



Piraeus, Greece, 2011

Editors

Georgios A. Giannakopoulos

Technological Educational Institute of Athens Faculty of Management and Economics Department of Library Science and Information Systems Address: Aghiou Spyridonos Street, 12210, Egaleo

E-mail: gian@teiath.gr

Damianos P. Sakas

University of Peloponnese Faculty of Science and Technology Department of Computer Science and Technology Address: End of Karaiskaki St., 22100, Tripolis, Greece

E-mail: D.Sakas@uop.gr

The copyrights will be owned by the authors under the Creative Commons Attribution-Non Commercial license (http://creativecommons.org/licenses/by-nc/3.0/), which permits unrestricted use, distribution, and reproduction in any non commercial medium, provided the original work is properly cited.

ISSN:

Printed in the Greece, EU

CONTENTS

PREFACE: Proceedings of the International Conference on Integrated Information (IC-INFO 2011)	1
Georgios A. Giannakopoulos, Damianos P. Sakas	
Conference Details	3
Keynote Speaker	5
SYMPOSIUM ON INFORMATION AND KNOWLEDGE MANAGEMENT Prof. Christos Skourlas	6
Towards the Preservation and Availability of Historical Books and Manuscripts: A Case Study Eleni Galiotou	8
An Extensive Experimental Study on the Cluster-based Reference set Reduction for Speeding-up the k-nn Classifier Stefanos Ougiaroglou, Georgios Evangelidis and Dimitris A. Dervos	12
Exploiting the Search Culture Modulated by the Documentation Retrieval Applications Nikitas N. Karanikolas and Christos Skourlas	16
Information and Knowledge Organization: The Case of the TEI of Athens Anastasios Tsolakidis, Manolis Chalaris and Ioannis Chalaris	22
Providing Access to Students with Disabilities and Learning Difficulties in Higher Education through a Secure Wireless framework Catherine Marinagi and Christos Skourlas	26
Improving Query Efficiency in High Dimensional Point Indexes Evangelos Outsios and Georgios Evangelidis	30
Text Segmentation Using Named Entity Recognition and co-Reference Resolution in Greek Texts	34
Pavlina Fragkou	
KINISIS, a Graphical XQuery Language Euclid Keramopoulos, Achilleas Pliakas, Konstantinos Tsekos and Ignatios Deligiannis	42
Dimensionality Curse, Concentration Phenomenon and the KDB-tree Nikolaos Kouiroukidis and Georgios Evangelidi	46

Applying Balanced Scorecard Strategic Management in Higher Education Manolis Chalaris, Anastasios Tsolakidis and Ioannis Chalaris				
A Web Portal Model for NGOs' Knowledge Management Zuhal Tanrikulu	54			
The Digital Archives System and Application Optimized for the Tradition Knowledge Archives	58			
Jeon Hong. Chan, In Deok. Hwang, Jae Hak. Park, Hyeok. Sim, U won. Gwon and Soon Cheol. Park				
A Semi-automatic Emerging Technology Trend Classifier Using SCOPUS and PATSTAT	62			
Seonho Kim, Woondong Yeo, Byong-Youl Coh, Waqas Rasheed, Jaewoo Kang				
Presenting a Framework for Knowledge Management within a Web Enabled Living Lab Lizette de Jager and Albertus AK Buitendag and Potjie (JS) van der Walt	66			
4TH SYMPOSIUM ON BUSINESS AND MANAGEMENT AND DYNAMIC SIMULATION MODELS SUPPORTING MANAGEMENT STRATEGIES Dr. Damianos Sakas	71			
New Political Communication Practices: No Budget Events Management. The New Challenge Evangelia N. Markaki, Damianios P. Sakas and Theodore Chadjipantelis	73			
Free Software – Open Source Software. A Powerful Tool for Developing Creativity in the Hands of the Student Nacionavlas K. Dimitrias Demicros P. Sakas Konstantinos Massalas	78			
Nasiopoulos K. Dimitrios, Damianos P. Sakas, Konstantinos Masselos				
Open Source Web Applications. How it Spread Through the Internet and their Contribution to Education.	82			
Nasiopoulos K. Dimitrios, Damianos P. Sakas, Konstantinos Masselos				
Culture in Modern Times in the Frame of Luhmann's System Theory Anastasia J. Chournazidis	85			
Managing Scientific Journals: A Cultural Viewpoint Marina C. Terzi, Damianos P. Sakas, and Ioannis Seimenis	87			
A Conceptual Framework for Analyzing Knowledge-based Entrepreneurship Nikos S. Kanellos	92			

SESSION ON INFORMATION HISTORY: PERSPECTIVES, METHODS AND CURRENT TOPICS	96
Prof. Laszlo Karvalics	
Emerging Research Fields in Information History Laszlo Z. Karvalics	98
Information Management through Elementary Data Clusters: New Observations on Pridianum-Type Roman Statistical Documents Gergő Gellérfi	102
Information and Secrecy on the Silk Road. Methods of Encryption of Legal Documents in Inner Asia (3th-4th century) Szabolcs Felföldi	106
The Role of Information and Disinformation in the Establishment of the Mongolian Empire: A Re-examination of the 13th century Mongolian History from the Viewpoint of Information History	110
Márton Gergő Vér	
Early Warning Systems and the Hospitallers in the Eastern Mediterranean Zsolt Hunyadi	114
Information Management as Establishment Dutch Navigational Knowledge on Japan, 1608-1641	118
Gabor Szommer	
Files Everywhere - Register and Training of Men for Military and Civil Purpose in Prussia in the early 18th century Marton Holczer	123
SYMPOSIUM ON INTEGRATED INFORMATION: THEORY, POLICIES, TOOLS Prof. Georgios Giannakopoulos	126
Approaching Information as an Integrated Field: Educating Information Professionals Georgios Giannakopoulos, Daphne Kyriaki Manesi and Sryridon Zervos	128
Special Libraries as Knowledge Management Centers Eva Semertzaki	132
Digital Libraries' Developers and their Suitability: A Case Study Maria Monopoli	136

A Preliminary Study for the Creation of a Greek Citation index in the Humanities and the Social Sciences (GCI – H&SS)	140
Daphne Kyriaki-Manessi and Evi Sachini	
Archiving as an Information Science. Evidence from a Survey Carried out on a Sample of Greek Students	144
Georgios Giannakopoulos and Ioannis Koumantakis	
Transition Process of E-records Management and Archiving System in Universities: Ankara University	147
S. Özlem Bayram and Fahrettin Ozdemirci	
Government Information: Access and Greece's Efforts for Access Aikaterini Yiannoukakou	150
School Archives and their Potentials in Teaching: Aspects of Greek Reality Sonia Geladaki and Panagiota Papadimitriou	156
Research on School Libraries in Greece and Suggestions on its Further Development Georgios D. Bikos	160
Building Digital Collections for Archeological Sites: Metadata Requirements and CIDOC CRM Extension	164
Georgios S. Gkrous and Mara Nikolaidou	
Museological Claims to Autonomous Knowledge: Rethinking the Conceptual Mode of Display and its Claims to Knowledge	169
Assimina Kaniari and Georgios Giannakopoulos	
Use of Library Loan Records for Book Recommendation Keita Tsuji, Erika Kuroo, Sho Sato, Ui Ikeuchi, Atsushi Ikeuchi, Fuyuki Yoshikane and Hiroshi Itsumura	172
Developing a National Database on Librarianship and Information Science. The Case of E-VIVA, the Hellenic Fulltext Database Filippos Ch. Tsimpoglou, Vasiliki V. Koukounidou and Eleni K. Sakka	176
Integrated Access to Cultural Heritage Information Pieces in Iran Astan-Quds Razavi's Organization of Libraries, Museums and Documents Center: A Theory of Unionization Disparate Information Assets over Imam Reza's Zarih Ms. Mitra Zarei and Ms. Maliheh Farrokhnia	181
Attitudes of University Librarians and Information Scientists towards the Draft Code of	185

Library Ethics to Present a Model for Final Library Ethical Codes

Mahsoomeh Latifi, Fatemeh Zandian and Hasan Siamian

SESSION ON OPEN ACCESS REPOSITORIES: SELF-ARCHIVING, METADATA, CONTENT POLICIES, USAGE	188
Dr. Alexandros Koulouris	
Geographical Collections in Greek Academic Libraries: Current Situation and Perspectives	189
Ifigenia Vardakosta and Sarantos Kapidakis	
Information Seeking Behavior: Factors that Affect the Behavior of Greek Astronomers Hara Brindesi and Sarantos Kapidakis	194
Aggregating Metadata for Europeana: The Greek Paradigm Alexandros Koulouris, Vangelis Banos and Emmanouel Garoufallou	198
Integrating a Repository with Research Output and Publications: The Case of the National Technical University of Athens	202
Dionysis Kokkinos	
Implementation of Workflows as Finite State Machines in a National Doctoral Dissertations Archive	205
Nikos Houssos, Dimitris Zavaliadis, Kostas Stamatis and Panagiotis Stathopoulos	
Practices of "Local" Repositories of Legally Protected Immovable Monuments. A Global Scheme for 'Designation – Significance' Information Michail Agathos and Sarantos Kapidakis	209
Sur sa a man a rea of	
Integration of Metadata in BWMETA-2.0.0 Format Katarzyna Zamlynska, Jakub Jurkiewicz and Lukasz Bolikowski	213
SESSION ON EVIDENCE-BASED INFORMATION IN CLINICAL PRACTICE Dr. Evangelia Lappa	216
Applicability of Data Mining Algorithms on Clinical Datasets Wilfred, Bonney	218
Changing Roles of Health Librarians with Open Access Repositories Christine Urquhar and Assimina Vlachaki	221
From Medical Records to Health Knowledge Management Systems: The Coding to Health Sector	225
Evangelia C. Lappa and Georgios A. Giannakopoulos	

The Survey of Skill, Attitude and Use of Computer and Internet among Faculty Members Hasan Siamian, Azita Bala Ghafari, Kobra Aligolbandi, Mohammad Vahedi and Gholam Ali Golafshani Jooybari				
Trends in Scholarly Communication among Biomedical Scientists in Greece Assimina Vlachaki and Christine Urquhart	232			
SESSION ON ELECTRONIC PUBLISHING: A DEVELOPING LANDSCAPE Dr. Dimitris Kouis	236			
E-Journal and Open Access Journal Publishing in the Humanities: Preliminary Results from a Survey among Byzantine Studies Scholars Victoria Tsoukala and Evi Sachini	238			
Preliminary Results on a Printed VS Electronic Text Books Assessment Through Questionnaire Dimitrios A. Kouis and Kanella Pouli	242			
An Interpretation of Aristotelian Logic According to George Boole Markos N. Dendrinos	246			
SESSION ON INFORMATION CONTENT PRESERVATION AS OUTCOME OF CONSERVATION OF CULTURAL HERITAGE: ETHICS, METHODOLOGY AND TOOLS Prof. George Panagiaris and Dr. Spiros Zervos	251			
Intrinsic Data Obfuscation as the Result of Book and Paper Conservation Interventions Spiros Zervos, Alexandros Koulouris and Georgios Giannakopoulos	254			
Mass Deacidification: Preserving More than Written Information Michael Ramin, Evelyn Eisenhauer and Markus Reist	258			
Information Literacy of Library Users: A Case Study of Mazandaran Public Library Users, Iran Hussein Mahdizadeh and Hasan Siamian	260			
The Narratives of Paper in The Archives of the New Independent Greek State (Mid 19th c.) Ourania Kanakari and Maria Giannikou	264			
From Macro to Micro and from Micro to Nano: The Evolution of the Information Content Preservation of Biological Wet Specimen Collections Nikolaos Maniatis and Georgios Panagiaris	268			

Digital images: A valuable scholar's tool or misleading material? Patricia Engel	272
Attitudes of University Librarians and Information Scientists Towards the Draft Code of Library Ethics to Present a Model for Final Library Ethical Codes Mahsoomeh Latifi, Fatemeh Zandianand and Hasan Siamian	277
Investigation of the Degradation Mechanisms of Organic Materials: From Accelerated Ageing to Chemometric Studies	280
Ekaterini Malea, Effie Papageorgiou and Georgios Panagiaris	
SESSION ON DIVERGENCE AND CONVERGENCE: INFORMATION WORK IN DIGITAL CULTURAL MEMORY INSTITUTIONS Dr. Susan Myburgh	285
Extending Convergence and Divergence in Cultural Memory Institutions: The Old Slave Lodge in the New South Africa Archie L Dick	287
The Transfer of Knowledge from Large Organizations to Small: Experiences from a Research Project on Digitization in Wales Clare Wood-Fisher, Richard Gough, Sarah Higgins, Menna Morgan, Amy Staniforth and Lucy Tedd	289
The Usage of Reference Management Software (Rms) in an Academic Environment : A Survey at Tallinn University Enrico Francese	293
Varialog : How to Locate Words in a French Renaissance Virtual Library Marie-Hélène Lay	297
The Urge to Merge: A Theoretical Approach Susan Myburgh	301
SYMPOSIUM ON ADVANCES INFORMATION FOR STRATEGIC MANAGEMENT Professor Nikolaos Konstantopoulos	304
Empowerment in the Tax Office of Greece Antonios E. Giokas and Nikolaos P. Antonakas	306
Building Absorptive Capacity Through Internal Corporate Venturing Ioannis M. Sotiriou and Alexandros I. Alexandrakis	310

The Monitoring Information System (M.I.S.) - An information and Management System for Projects Co-financed Under the National Strategic Reference Framework (NSRF) and the Community support framework (CSF)			
Catherina G. Siampou, Eleni G. Fassou and Athanassios P. Panagiotopoulos			
Corruption in Tax Administration: The Entrepreneurs View Point	318		
Nikolaos P. Antonakas, Antonios E. Giokas and Nikolaos Konstantopoulos			
Conflicts between the IT Manager and the Software House after the Strategic Choice of Outsourcing of the Information Processes in Maritime Companies.	322		
Anthi Z. Vaxevanou, Nikolaos Konstantopoulos, Damianos P. Sakas			
Contemporary Forms of Ordering Between the Supply Department and Ship Chandler Companies in the Shipping Industry	325		
Anthi Z. Vaxevanou, Nikolaos Konstantopoulos, Damianos P. Sakas			
Strategies Implemented and Sources Used for the Acquisition of Information on Foreign Markets	329		
Myropi Garri, Nikolaos Konstantopoulos and Michail G. Bekiaris			
The Effect of High Performance Working Systems on Informative Technology in Enterprises after Organisation Changes such as Mergers & Acquisitions	333		
Nikolaos Konstantopoulos and Yiannis Triantafyllopoulos			
Personnel's Absorptive Capacity as a Guiding Concept for Effective Performance in Informative Technology	337		
Nikolaos Konstantopoulos and Yiannis Triantafyllopoulos			
SESSION ON CONTEMPORARY ISSUES IN MANAGEMENT: ORGANISATIONAL BEHAVIOUR, INFORMATION TECHNOLOG, EDUCATION & HOSPITAL LEADERSHIP	341		
Dr. Panagiotis Trivellas			
Investigating the Importance of Sustainable Development for Hotel SMES Panagiotis Reklitis and Anestis Fotiadis	343		
Strategic Alignment of ERP, CRM and E-business: A Value Creation Catherine C. Marinagi and Christos K. Akrivos	347		
The Impact of Occupational Stress on Performance in Health Care Panagiotis Trivellas Panagiotis Reklitis and Charalambos Platis	351		

The Impact of Emotional Intelligence on Job Outcomes and Turnover Intention in Health Care	356
Panagiotis Trivellas Vassilis Gerogiannis and Sofia Svarna	
SYMPOSIUM ON BUSINESS MANAGEMENT AND COMMUNICATION STRATEGIES SUPPORTING DECISION MAKING PROCESS IN TOURISM SECTOR	360
Dr. Panagiota Dionysopoulou	
The Human Factor as a Mediator to the Total Quality in the Tourism Companies. The impact of Employees' Motivation to Quality Improvements	362
Christos K. Akrivos and Panagiotis Reklitis	
Tourist Destination Marketing and Management Using Advanced ICTS Technologies Anastasia Argyropoulou, Panagiota Dionyssopoulou, Georgios Miaoulis	365
G.N.T.O. (Greek National Tourism Organization) Communication Strategy in Advertising Campaigns 1991-2006	370
George Stafylakis and Panagiota Dionyssopoulou	
GENERAL PAPERS	375
The role of Environmental Education within the Framework of the Environmental	376
Policy of a Regional Municipality	
Vassiliki Delitheou and Dimitra Thanasia	
Issues of Social Cohesion: A case study from the Greek Urban Scenery Evgenia Tousi	380
Merging Activity and Employee Performance: The Greek Banking System Panagiotis Liargovas and Spyridon Repousis	384
Sustainable Development and Corporate Social Responsibility in Higher Education: Some	387
Evidence from Greece	
Anastasios Sepetis and Fotios Rizos	
Exploring the Effects of Organizational Culture on Collaborative vs. Competitive	
Knowledge Sharing Behaviors	395
Hanan Abdulla Mohammed Al Mehairi and Norhayati Zakaria	

Preface: Proceedings of the International Conference on Integrated Information (IC-ININFO 2011)

GEORGIOS A. GIANNAKOPOULOS

Department of Library Science and Information Systems, Technological Educational Institute of Athens, Aghiou Spyridonos, Egaleo, 12210, Greece

DAMIANOS P. SAKAS

Department of Computer and Technology Science, University of Peloponnese, Praxitelous 89-91, Piraeus, 18532, Greece

Aims and Scope of the Conference

The International Conference on Integrated Information 2011 took place in Kos Island, Greece, between September, 29 and October, 3, 2011. IC-ININFO is an international interdisciplinary conference covering research and development in the field of information management and integration.

The conference aims at creating a forum for further discussion for an Integrated Information Field incorporating a series of issues and/or related organizations that manage information in their everyday operations. Therefore, the call for papers is addressed to scholars and/or professionals of the fields of Library and Archives Science (including digital libraries and electronic archives), Museum and Gallery Studies, Information Science, Documentation, Information Management, Records Management, Knowledge Management, Data management and Copyright experts the latter with an emphasis on Electronic Publications. Furthermore, papers focusing on issues of Cultural Heritage Management and Conservation Management are also be welcomed along with papers regarding the Management of Nonprofit Organizations such as libraries, archives and museums.

One of the primary objectives of the IC-ININFO will be the investigation of information-based managerial change in organizations. Driven by the fast-paced advances in the Information field, this change is characterized in terms of its impact on organizations that manage information in their everyday operations.

Grouping emerging technologies in the Information field together in a close examination of practices, problems and trends, IC-ININFO and its emphases on integration and management will present the state of the art in the field. Addressed jointly to the academic and practitioner, it will provide a forum for a number of perspectives based on either theoretical analyses or empirical case studies that will foster dialogue and exchange of ideas.

Topics of general Interest

Library Science, Archives Science, Museum and Gallery Studies, Information Science, Documentation, Digital Libraries, Electronic Archives, Information Management, Records / Document Management, Knowledge Management, Data Management, Copyright, Electronic Publications, Cultural Heritage Management, Conservation Management, Management of Nonprofit Organizations, History of Information, History of Collections, Health Information

Symposia

The Conference offered a number of sessions under its patronage, providing a concise overview of the most current issues and hands-on experience in information-related fields.

- Symposium on Integrated information: Theory, Policies, Tools
- 4th Symposium on Business and Management and Dynamic Simulation Models supporting management strategies

- Session on Open Access Rrepositories: Self-archiving, Metadata, Content policies, Usage
- Session on Evidence-Based Information in Clinical Practice
- Session on Business Management and Communication Strategies supporting Decision Making Process in Tourism Sector
- Session on Electronic Publishing: A Developing Landscape
- Session on Information and Knowledge Management
- Session on Information Content Preservation as Outcome of Conservation of Cultural Heritage: Ethics, Methodology and Tools
- Session on Advances Information for Strategic Management
- Session on Information History: Perspectives, Methods and Current Topics
- Session on Divergence and Convergence: Information Work in Digital Cultural Memory Institutions
- Session on Contemporary issues in Management: Organisational Behaviour, Information Technology, Education & Hospital leadership.

The wide range of aspects that the sessions covered, highlighted future trends in the Information Science.

Paper Peer Review

More than 300 papers had been submitted for consideration in IC-ININFO 2011. From them, 91 were selected for presentation, after peer review in a double blind review process. The accepted papers were presented at IC-ININFO 2011.

Thanks

We would like to thank all members that participated in any way in the IC-ININFO 2011 Conference and especially:

- The famous publishing house Emerald for its communication sponsorship.
- The co-organizing Universities and Institutes for their support and development of a high-quality Conference scientific level and profile.
- The members of the Scientific Committee that honored the Conference with their presence and provided a significant contribution to the review of papers as well as for their indications for the improvement of the Conference.
- All members of the Organizing Committee for their help, support and spirit participation before, during and after the Conference.
- The Session Organizers for their willing to organize sessions of high importance and for their editorial work, contributing in the development of valued services to the Conference.
- PhDc Marina Terzi for her excellent editorial work, contributing in the production of the Conference proceedings.

CONFERENCE DETAILS

Chairs

Georgios A. Giannakopoulos, Technological Educational Institute of Athens, Greece Damianos P. Sakas, University of Peloponnese, Greece

Co-Chairs

Daphne Kyriaki – Manesi, Technological Educational Institute of Athens, Greece Dimitrios Vlachos, University of Peloponnese, Greece

Scientific Committee

Amanda Spink, Queensland University of Technology

Andreas Bagias, European Court

Andreas Rauber, Vienna University of Technology

Astrid van Wesenbeeck, SPARC Europe

Christine Urquhart, Aberystwyth University

Christos Schizas, University of Cyprus

Christos Skourlas, Technological Educational Institute of Athens

Claire Farago, University of Colorado at Boulder

Claus-Peter Klas, FernUniversität in Hagen

Costas Vassilakis, University of Peloponnese,

Dimitris Dervos, Technological Educational Institute of Thessaloniki

Eelco Ferwerda, OAPEN

Elena Garcia Barriocanal, University of Alcalá

Emmanouel Garoufallou, Technological Educational Institute of Thessaloniki

Filippos Tsimpoglou, University of Cyprus

Fillia Makedon, University of Texas at Arlington

George Korres, University of Newcastle

Georgios Evangelidis, University of Macedonia

Georgios Panagiaris, Technological Educational Institute of Athens

Johan Oomen, Netherlands Institute for Sound and Vision

José Aldana, University of Malaga

Konstantinos Masselos, University of Peloponnese

Luciana Duranti, The University of British Columbia

Markos N. Dendrinos, Technological Institute of Athens

Milena Dobreva, University of Strathclyde

Prodromos Tsiavos, London School of Economics and Political Science

Sándor Darányi, University of Borås

Sarantos Kapidakis, Ionian University

Sirje Virkus, Tallinn University

Spiros Zervos, Technological Educational Institute of Athens

Susan Myburgh, University of South Australia

Theodoros Pitsios, University of Athens, Faculty of Medicine

Organizing Committee

Alexandros Koulouris (Chair), Technological Educational Institute of Athens

Christos Christopoulos, SCEV Scientific Events Ltd

Marina Terzi, University of the Aegean, Greece

Evangelia Markaki, Aristotle University of Thessaloniki

Assimina Kaniari, Athens School of Fine Arts Evangelia Lappa, General Hospital Attikis K.A.T. Dimitris Kouis, Greek Ministry of Education, Lifelong Learning and Religious Affairs Dionysis Kokkinos, National Technical University of Athens

KEYNOTE SPEAKER



Professor Amanda Spink

Professor Amanda Spink has published over 340 scholarly journal articles, refereed conference papers and book chapters, and 6 books. Many of her journal articles are published in the Journal of the American Society for Information Science and Technology, Information Processing and Management, and the Journal of Documentation. She is Editor of the Emerald journal Aslib Proceedings. Amanda's research has been published at many conferences including ASIST, IEEE ITCC, CAIS, Internet Computing, ACM SIGIR, and ISIC Conferences. Her recent books include Information Behavior: An Evolutionary Instinct and Web Search: Multidisciplinary Perspectives, both published by Springer. Amanda's research focuses on theoretical and empirical studies of information behavior, including the evolutionary and developmental foundations. The National Science Foundation, the American Library Association, Andrew R. Mellon Foundation, Amazon.com, Vivisimo. Com, Infospace.com, NEC, IBM, Excite.com, AlltheWeb.com, AltaVista.com, FAST, and Lockheed Martin have sponsored her research. In 2008 Professor Spink had the second highest H-index citation score in her field from 1998 to 2008 [Norris, M. (2008)]. Ranking Fellow Scholars and their H-Index: Preliminary Survey Results. Loughborough University, Dept of Information Science Report].

Conflicts Between the IT Manager and the Software House after the Strategic Choice of Outsourcing of the Information Processes in Maritime Companies.

Anthi Z. Vaxevanou[†], Nikolaos Konstantopoulos[‡], Damianos P. Sakas^{‡†},

† Business Administration Department, University of Aegean, 8 Mihalon Str., Chios, 82100 Greece avaxevanou(at)aegean.gr

‡ Business Administration Department, University of Aegean, 8 Mihalon Str., Chios, 82100 Greece nkonsta(at)aegean.gr

Abstract: One of the basic actions of maritime companies intended for outsourcing is the creation of management information material using the appropriate software. It is not disputed that almost all the shipowning companies have at least one IT manager, whose training is diverse. However, it is not a given that an IT manager is aware of difficulties that may arise in IT projects. The software house tries to sell the same or similar software to all shipowning companies in order to avoid increased costs, which would be caused by the custom modifications. The above practices often lead to conflict between the two parties with the result that the management of valuable information material for the shipowning company is risked.

Keywords: Conflict, Servicing, Outsourcing, Information management.

I. INTRODUCTION

The rapid advancement of technology and the information systems makes necessary the outsourcing of the IT sector of a maritime company to external collaborators who, according to the research, have the know-how.

The sector of information systems and communications is so complex that, in combination with the technological development make the monitoring of operations only by one person, impossible. Thus, it becomes necessary to have a larger number of human resources in this particular department.

Along with the need for the increase of human resources, there is also a need for the development of machines and software programs of the maritime company, which increases the cost of this process.

As a result, the choice to outsource the IT services of a maritime company to an external collaborator aims at obtaining certain advantages (Grant, 2005), the most important of which is the cost advantage.

And that because when a company decides to outsource its IT support, the provider of this service is the one who has to manage the burden of the fusion of modern technologies and the reconstruction and upgrading of systems, in order to maintain them the best possible way.

By outsourcing the IT sector to an external collaborator, a company gains quicker access to competences and knowledge of a great importance, instead of trying to train its staff from the very beginning.

By outsourcing operations to external collaborators, each company manages to discharge the administration from some functions, making it responsible only for the control of external collaborators, and therefore helping it to concentrate on more fundamental processes that can provide a competitive advantage. That way, it has the opportunity to act effectively in relation to its main business resources.

By giving some business sectors to an external supplier, company focuses on her basic sector of the supply chain and actually is engaged to factors that knows better (Thomson, 2008).

In the bibliographic review carried out, special emphasis is given to a resulting advantage of the implementation of outsourcing: the diversification. Furthermore, a company entering into collaboration agreements has the advantage that it chooses each time its collaborators. Thus, it assesses both the economic and qualitative performance.

Outsourcing offers a company the flexibility to change its collaborators, when it believes that its competitors can be more effective.

The search for new collaborators is usually faster, easier, less risky and cheaper, than the rush reorganization of internal operations, to replace outdated skills and training on new technologies.

II. METHODS

A. Research design

A qualitative research was carried out on maritime company executives of the purchasing department and fourteen CEO of shipping software development companies. Emphasis was given to possible conflicts arising from outsourcing in the IT sector. A quantitative research was then carried out both on the maritime company employees who were using the software and the software developers.

The quantitative research was carried out using multiple-choice questionnaires with the five-point Linkert scale.

^{‡†} Department of Computer and Technology Science, University of Peloponnese, Praxitelous 89-91, Piraeus, 18532, Greece. D.sakas(at)uop.gr

This research paper presents part of the research results. A questionnaire of seventy questions represents the data that showed impressive indications concerning the conflicts between the parties.

B. Problems that may occur

The risk occurring from the assignment of activities related to information systems is that the company loses touch with the activities and the knowledge integrity determining its success in the long-term.

The survey showed that many times, dependence from an external partner could lead to a deadlock in case this cooperation is terminated (Aron, 2002). And it is not the process of the activity creating the gap, but the human potential that is used to assign the service from an external collaborator and can not function otherwise.

However, in most cases, this risk is known so the maritime companies take measures in order to be protected from constant outsourcing, by training an internal resource having high supervision on the services provided.

Another risk element in the choice of outsourcing for a maritime company is the possibility for the services provided by the outsourcer to be of low quality on the altar of profit (Doing, 2001). It should be noted here that sometimes the interests of both parties might be contradictory, since external partners seek to maximize their own benefit and profit.

C. Can conflicts have positive results?

One of the fields of action of a maritime company that is outsourced, is the IT field and we already mentioned the risks arising from IT outsourcing to service providers.

Since the complexity of the turnover of a maritime company was increased, opportunities for service providers to strengthen their presence were increased respectively.

Therefore, cooperations that were developed, gave an opportunity to service providers to strengthen their competitivity, not only by entering and by increasing their profit, but also by extending the services provided and by improving the quality of those services (Cruijssen et al, 2007 · Carbon and Stone, 2005).

Due to the complexity of the existing cooperations and the various problems that may arise, as mentioned above, the creation of frictions and conflicts are likely to occur (Schmoltzi and Wallenburg, 2009).

The conflict is the disagreement between two parties, it is often considered a negative factor and it is a situation that should be addressed (Andrade et al., 2008).

In most cases, department managers are the ones who have to address, avoid or solve these situations (Jehn, 1997), by applying some rules and control mechanisms (Verstrepen et al., 2009).

However, this perspective ignores the possible positive results of conflicts between the

contact/relationship of the two parties. Conflicts facilitate the exchange of ideas, which may result in the application of different views and ideas and through a creative tension they can promote development and innovation (Menon et al. 1996).

Since the result of conflict has been discussed (if it can have positive results), the conflict affects cooperation (Barclay, 1991).

D. Outcome of Conflict

A conflict is a situation during which two or more parties are in disagreement. Therefore it is considered to be a negative concept for many reasons. First of all being able to solve a conflict, find a common ground, is a consuming energy source and therefore has a cost for the parties.

Moreover, a conflict can cause disruption to the central management and distract attention from higher importance issues. It also has a negative impact (De Dreu and Weingart's, 2003) on trust and commitment, since parties feel an increased uncertainty about each other.

Secondly, if a conflict is not resolved, it can have negative results since disagreement on a particular issue can be translated into a division of the effort and the advantages that could be achieved if the effort had reached its goal.

Unlike the above, other authors see the positive side of a conflict and argue that it promotes decision making (Janis, 1972 · Schweiger et al, 1989).

In the opposite ideas they see a creative approach, which promotes learning and development through the exchange of different opinions. Even when not bridged, conflicts can be used to achieve a better understanding of the objectives of each party and decision-making.

Some authors (Andrade et al, 2008) go even further and argue that the conflict not only should not be avoided, but that it is actually necessary for the development of a company.

III. CONCLUSIONS

The survey showed that many times, dependence from an external partner could lead to a deadlock in case this cooperation has to end.

And it is not the process of the activity creating the gap, but the workforce that is used to the assignment of a service from an external collaborator and cannot function otherwise.

Another risk element in the choice of IT outsourcing for a maritime company is the possibility for the products or services provided by the outsourcer to be of low quality on the altar of profit.

It should be noted here that sometimes the interests of both parties might be contradictory, since external IT partners seek to maximize their own benefit and profit.

Generally the research results showed that at least the following factors, included in Table 1, must be met. Business executives rated the difficulty of applying these factors, with 1 (very easy) and 5 (very difficult).

P. 1: 0/					
Results in %	1	2	3	4	5
-					
Project Team Sufficiency	13	19	18	35	15
Objective Setting Goals	52	23	13	11	1
Evaluation of In-House Operations	44	23	12	10	11
Coooperation with the Outsourcer at the design stage	19	17	22	27	15
Improving the Quality of Service	62	15	11	9	3

Table 1. Evaluation

A brief qualitative analysis shows that cooperation with the Outsourcer, in order to define the objectives of outsourcing, is difficult.

This finding is justified since many of the companies involved with outsourcing consider obvious some parts of the agreements. Resulting in an indirect denial of assistance in planning their strategy.

We also observed that the Objective Setting Goals treated as an easy process. The qualitative survey showed that executives when answering this question are not aware of the subsections of this question.

These modules contain difficult and dilimmatikou character questions such as "How can the company, through outsourcing, to acquire expertise and innovative logistic techniques», etc.

REFERENCES

- Andrade, L., Plowman, D.A. and Duchon, D., "Getitng past conflict resolution: a complexity view of conflict", Emergence: Complexity & Organization (E:CO), 10 No.1, 23-38, (2008).
- Aron R., "Business Processes are Moving from the West to Other Parts of the world", Knowledge at Wharton, (2002).
- Barclay, D., "Interdepartmental conflict in organizational buying: the impact of the organizational context", Journal of Marketing Research, 2, 145-59, (1991).
- Carbone, V. and Stone, M.A., "Growth and relational strategies used by the European logistics service providers: rationale and outcomes", Transportation Research Part E, 41 No.6, 495-510, (2005).
- Cruijssen, F., Cools, M. and Dullaert, W., "Horizontal cooperation in logistics: opportunities and impediments", Transportation Research Part E, 43 No.2, 129-42, (2007).

- De Dreu, C.K.W. and Weingart, L.R., "Task versus relationship conflict, team performance and team member satisfaction: a meta-analysis", Journal of Aplied Psychology, 88 No.4, 741-9, (2003).
- <u>Outsourcing Gone Too Far?, The McKinsey</u> <u>Quarterly, (2001).</u>
- Grant R.M., "Contemporary Strategy Analysis", Blackwell Publishing, (2010).
- Janis, I.L., Victims of Groupthink: A Psychological Study of Foreign-policy Decisions and Fiascoes, Houghton Mifflin, Boston, MA.
- Jehn, K.A., "A qualitative analysis of conflict types and dimensions in organizational groups", Administrative Science Quarterly, 42, 530-57, (1997).
- Menon, A., Bharadwaj, S.G. and Howell, R., "The quality and effectiveness of marketing strategy: effects of functional and dysfunctional conflict in intraorganizational relationships", Journal of the Academy of Marketing Science, 24 No.4, 299-131, (1996).
- Schmoltzi, C. and Wallenburg, C.M., "Architecture of horizontal cooperation's between logistics service providers: an empirical exploration of cooperation types, cooperation motives and governance patterns", Paper presented at the 21st Annual NOFOMA Conference, Jonkoping, 11-12 June.
- Schweiger, D.M. Sandberg, W.R. and Rechner, P.L., "Experiential effects of dialectical inquiry, devil's advocacy, and consensus approaches to strategic decision making", Academy of Management Journal, 32 No.4, 745-72, (1989).
- Thomson JR. A, Strickland A.J., Gamble J., Crafting and Executing Strategy, "The Quest for Competitive Advantage: Concepts and Cases", McGraw-Hill, 257-60 (2008).
- Verstrepen, S., Cools, M., Cruijssen, F. and Dullaert, W., "A dynamic framework for managing horizontal cooperation in logistics", International Journal of Logistics Systems and Management, 5, 228-48, (2009).