



KNOWLEDGE MANAGEMENT
IN ORGANIZATIONS

2nd International Conference on Knowledge Management in Organization

*Session on
"New trends in knowledge management"*

September 10th and 11th, 2007 – University of Salento, Lecce,
ITALY

Program of the conference

September 10 th 2007	
Conference Session 1	
09.00	<i>Registration at the conference</i>
09.30	Welcome message and Conference presentation Prof. Lorna UDEN, Staffordshire University, United Kingdom Prof. Ernesto DAMIANI University of Milan, Italy Prof. Giuseppina PASSIANTE University of Salento, Scuola Superiore ISUFI, Italy
10.00	From Knowledge Portals to Knowledge Infrastructures Prof. Dr. Ronald Maier Leopold-Franzens-University of Innsbruck, School of Management, Information Systems, Innsbruck, Austria
	Abstract of the lecture Businesses and organizations are characterized by an increasing portion of knowledge-intensive work. Knowledge management instruments as combinations of organizational and information and communication technological measures can be used to improve productivity of knowledge-intensive work. If designed accordingly, knowledge portals can offer suitable platforms for the implementation of knowledge management instruments. The development of knowledge portals involves substantial requirements for accessing and integrating data, documents and services. The consequent realization of these requirements leads to enterprise knowledge infrastructures. Implementation of both, instruments and infrastructures, requires adequate modeling techniques that consider the specifics of modeling context in knowledge work, skills and competences of individuals, teams and communities, types and maturity levels of knowledge, processes and composition of knowledge management services. The presentation reflects on characteristics of knowledge work, knowledge management instruments, knowledge portals and knowledge infrastructures and identifies key concepts for designing IT-based infrastructural solutions aimed at supporting organizational efficiency in handling knowledge.
11.00	Coffee break



Paper session 1
Knowledge Management Strategies
- Room Y4 -

11.20	<p>Knowledge management at project-based organization: a cultural complexities perspective Mian Ajmal Speaker: Mian Ajmal, University of Vaasa, Finland</p> <p>In near past the number of tasks and the amount of work inside a company is being handled in the form of projects. This trend is rising rapidly. There is no end of this trend to be seen, because key characteristics of project organization concentrate on success factors of companies as high flexibility, interdisciplinary work, promoting innovation. With this increasing trend still companies are not expert enough in handling their knowledge assets gained during the projects due to the cultural complexities. This conceptual paper aims to discuss nature of knowledge in project-based organizations and particularly point outs some possible cultural concerns which may be difficult to understand when applying knowledge strategies in such organizations.</p>
11.45	<p>Knowledge management from a cultural perspective Zoltán Gaál, Lajos Szabó, Nóra Óvári Speaker: Nóra Óvári, University of Pannonia, Hungary</p> <p>Why do people share their knowledge? People choose their actions depending on their beliefs that originated from previous experiences. Motivating knowledge sharing behaviours is an important first step to instilling a knowledge-sharing culture. In this paper we present a Hungarian Knowledge Management Research, which defines factors that describe knowledge management practice of an organization and we present that certain organizational cultures are more receptive to knowledge management programs than other types.</p>
12.10	<p>Knowledge management and innovation Lorna Uden, Tauno Kekäle, Marja Naaranoja Speaker: Marja Naaranoja, Vaasa University of Applied Sciences, Finland</p> <p>Innovation and knowledge play crucial role in technological advances and transformation of our modern society. In today's society, innovation and knowledge management are no longer luxury items. Instead, they are necessities and a means of economic development and competitiveness. Knowledge and innovation are inseparable. Knowledge management competencies and capacities are essential to any organisation that aspires to be innovative. Innovation and knowledge management are closely related. This paper discusses the importance of knowledge management in innovation for organisations. It describes how sustainable innovations can be achieved through the role of knowledge management. In the paper a framework for innovation process is also proposed.</p>
12.35	<p>Enabling knowledge transactions to improve organizational knowledge sharing Christopher Urwin Speaker: Christopher Urwin, Det Norske Veritas, United Kingdom</p> <p>This paper explores knowledge sharing within organisations and proposes a model to help improve knowledge sharing performance. The knowledge transaction is proposed as the basic mechanism by which knowledge is shared within organisations. This model is developed drawing together literature on knowledge markets, transaction cost economics and theories of knowledge. An empirical survey was conducted to evaluate and further develop the model. Five categories of factors influencing knowledge transactions are identified as; intrinsic motivation, authority, trust, price and technology.</p>

Paper session 2
Knowledge Management Technologies
- Room Y5 -

11.20	<p>The development of an ontology-based expert system for corporate financial rating Li-Yen Shue, Ching-Wen Chen, Chao-Hen Hsueh Speaker: Li-Yen Shue, National Kaohsiung First University of Science & Technology, Taiwan, R.O.C.</p> <p>This study presents a new approach in developing an expert system to assess financial quality of an enterprise. The complexity of analyzing financial statements has led us to separate its knowledge content into domain knowledge of financial statements and operational knowledge of analysts' analytical process. The former represents the well-defined relationships of accounting items of financial statements. The latter represents the reasoning processes that use the domain knowledge to appraise the quality of given financial statements. We apply Ontology to model the content of domain knowledge, and use decision rules to represent operational knowledge. This system integrates Protégé, as domain knowledge base, and JESS, as operational knowledge base, into one complete expert system.</p>
11.45	<p>Knowledge management systems and e-learning systems overview – common characteristics, differences, and future potential for integration korneliya Yordanova, Albena Antonova Speaker: Korneliya Yordanova, Cist, Sofia University, Bulgaria</p> <p>The present paper discusses the basic characteristics of existing knowledge management and e-learning systems in order to define common features of both types of systems. An analysis is made comparing the main characteristics of such systems. The aim of the paper is to identify the possible integration and interoperability of systems functionalities and for better and more powerful integration of within organizations.</p>
12.10	<p>A comparative evaluation of lightweight solutions for proactive knowledge dissemination Sergiu Gordea, Markus Zanker Speaker: Sergiu Gordea, University Klagenfurt, Applied Informatics Department, Austria</p> <p>Knowledge management (KM) is nowadays a very important concern of knowledge intensive companies like, for instance, those involved in software development or consulting. Due to the permanently growing amount of information stored in knowledge repositories, the access to relevant information becomes very inefficient. Therefore there is a necessity to employ intelligent, personalized and proactive technologies for supporting knowledge dissemination in these environments. In this paper we make a comparative evaluation of five variants of Content Based and Collaborative Filtering algorithms using the user system interaction logs of a knowledge management system which operates as a collaboration platform between distributed working teams. We advanced standard algorithms with time-decayed variants which take access dates in account. This way we could achieve superior results in the KM domain.</p>
12.35	<p>Developing a knowledge management tool to support improvement projects within knowledge sharing networks Agustin Perez-Araos, Kevin Barber, J. Eduardo Munive-Hernandez Speaker: J. Eduardo Munive-Hernandez, University of Bradford School of Management, United Kingdom</p> <p>This paper presents the development of a Knowledge Management (KM) software tool designed to support the implementation of improvement projects, Manufacturing Excellence (ME) best practices and quality models. The application of the KM tool facilitates manufacturing SMEs to share the knowledge associated to those initiatives through virtual Knowledge Sharing Networks (KSNs). A survey indicated that the main barrier to adopt ME best practices in SMEs is lack of knowledge associated with the implementation of these initiatives. This is mostly due to resource constraints. This led to the development of an affordable KM tool to enable SMEs to develop and execute improvement projects efficiently and to facilitate knowledge sharing. SMES can become more competitive by expanding their knowledge base within a KSN environment.</p>

13.00	Lunch break
14.30	<p>Corporate search engine as Knowledge Management Tool: the PHAROS case study Ing. Francesco Nucci Engineering S.p.A., R&D Lab, Italy</p>
	<p>Abstract of the lecture The amount of data available on the corporate knowledge systems, in organizations and enterprises is multiplying. Search has become the default way of interacting with data and by 2008, 50% of applications are predicted to include a search facility as a primary interface for end users and employees. In addition, data is increasingly becoming multimedia, including images, video, and audio files. The ever-increasing data complexity leads to the necessity of a coherent approach to the growing variety of formats, standards and tools. Users find themselves overwhelmed by the multitude of new audiovisual search tools, while businesses are at loss for stable direction. Digital data is the greatest value that many organizations possess and the ability to use it, rather than just store it, will be one of the most important aspects of strategy in the coming decade. Access to digital data is the front window and the operational backbone for most organizations. The growth of data volume is rapidly shifting to audiovisual content, yet the technologies that allow processing and retrieval of this content are either mainly experimental, or only vaguely capable of handling true queries and content. Audiovisual search is therefore one of the major challenges for organizations and businesses today, and search-based technologies which can provide contextually relevant, integrated and scalable access to distributed and heterogeneous collections of information is essential. The PHAROS Integrated Project (IP), funded from 2007-2009, aims at developing an innovative audiovisual technology platform, which will enable consumers, businesses and organizations to unlock the values found in audiovisual content, a platform that will take user and search requirements as key design principles and which will be deeply integrated with user and context technologies. The developed technology will sustain itself in the future by enabling new players to build on top of the platform. To achieve this ambitious task, PHAROS mobilizes 13 strong technological players, research institutions and user groups, all sharing common goals.</p>
15.30	Coffee break
<p>Paper session 3 Knowledge Management Cases Study - Room Y4 -</p>	
15.50	<p>Knowledge management practices and their relationship with innovation among large manufacturers in west Malaysia Rosmaini Tasmin, Peter Woods Speaker: Rosmaini Tasmin, Tun Hussein Onn University, Malaysia</p> <p>Knowledge Management (KM) is frequently cited as one enabler of firm innovation especially among Western corporations. Though a general interest pertaining to KM and its link to innovation exists, there is little reported research that supports for such empirical links especially in the Malaysian context. Furthermore, contemporary KM studies are based upon American and European models, frameworks, and instruments. What may work in a Western environment, may serve the opposite in eastern part of the world, or vice versa. There is a need for local research to address the KM practices, concepts, instruments, and effects based on local settings. Using data from 149 Malaysian large manufacturing firms, a KM-enabling practices survey, which comprises of 5 key domains, is compared with four demographic firm elements. T-test, One-way ANOVA, LSD, and multiple regression analysis are applied to identify the level of KM practices and study the significant differences in terms of demographics among these large manufacturers. The research discovers that KM practices are at medium level among large firms being surveyed. It is also found that there are significant differences in KM practices among firms with high annual sales. An exploratory factor analysis (EFA) is executed to all variables in ensuring only high loading items used in the data analysis. Measurement model analysis is engaged to confirm significant relations between variables and their respective KM factors. Subsequently, Structural model analysis is applied to test the theory of structural relation between KM-enabling practices and innovation activities. Finally, a KM-Innovation model is proposed based on good SEM (Structural Equation Modeling) fit indices; namely CMIN/DF ratio, GFI, NFI, CFI, and RMSEA.</p>

16.15	<p>Knowledge management in the Italian landscape: insights from a desk review of case studies Marco Comuzzi, Matteo Malatesta Speaker: Marco Comuzzi, Politecnico di Milano, Italy</p> <p>Knowledge Management (KM) is a topic that is consistently underrated and poorly investigated in the Italian context, both from the academic and the practitioners perspectives. This paper tries to achieve some preliminary results on the state of KM initiatives in the Italian landscape starting from the identification of 53 success stories. The cross-case analysis of such success stories, conducted through the identification of the context in which each initiatives is developed and through the analysis of the alignment between target objectives and the degree of technological innovation adopted in KM initiatives, has lead us to underline two main tendencies of KM in the Italian landscape. On one side, we acknowledge the lack of technological experimentation in KM initiatives, which is particularly noticeable in the case of small and medium enterprises. On the other side, we underline that the efforts put in the implementation of advanced IT tools for KM, such as for collaborative work, remain often tentative and not aligned with the target objectives of KM initiatives.</p>
16.40	<p>Industrial utilization of sns as a tool of knowledge management for the employees --- case study of Japanese firms --- Michiko Yoshida Speaker: Michiko Yoshida, Fujitsu Research Institute, Japan</p> <p>In Japan, companies are introducing Intranet Blogs or SNSs for the purposes of Knowledge Management and revitalize employees' communication, and the number of these companies has been increasing. Job-related Blogs and SNSs are effective for Knowledge Management, i.e., decreasing time and money of information, improving speed for decision making, widening employees views, shortening time to find key person, acquiring knowledge from key persons, and interpreting that knowledge and applying it to business.</p>
17.05	<p>Vision-building for knowledge sharing in construction Marja Naaranoja, Lorna Uden Speaker: Marja Naaranoja, Vaasa University Of Applied Sciences, Finland</p> <p>Knowledge sharing is complicated. It is difficult to know the kind of knowledge needed in construction projects. This is particularly so when it is concerned with innovative working. There are different types of knowledge that can be shared among workers. These include offered, needed and wanted knowledge. It is not easy to know what kind of knowledge one needs. One of the problems is that people often filter out information they do not want to know. It is rare that people utilize all available resources such as people or tools that offer new knowledge. The offered knowledge may not be trustable or needed at the time. This paper describes a case study based on how knowledge sharing occurred on in construction projects in Finland using vision-building.</p>
17.30	<p>Information & knowledge visualization: can it help the crisis in the UK construction industry? Behzad Nowbati, Tarek Hassen, Christine Pasquire Speaker: Behzad Nowbati, Loughborough University, England</p> <p>The UK construction industry, more so than any other, is subjected to a new and ever increasing influx of migrant labour workers as additional countries join the European Union. This will intensify as the construction for the Olympic Games Facilities (2012) gets nearer to the critical construction period. Naturally, any language barriers can en-danger the safety and performance of the foreign employees as well as their fellow indigenous workers. Coupled with the natural tendency of construction workers not wanting to read pages of text, this would reinforce the need for a supplementary and/or an alternative system to present information and knowledge. Information and Knowledge Visualisation can be a solution to ease the communication problem. At the very least it can help with the essential information that should be communicated prior to starting on a project. This would minimise the need for a full understanding of the English language as well as being able to transfer information and knowledge in an effective and simplified way. This paper proposes the use of Knowledge Visualisation in the context of the construction industry and argues the case for the need to develop an 'information flow' through this kind of process. It briefly dwells on problems that exist with knowledge transfer, explores the views of some experts in this field and presents a case study to substantiate the validity of the facts. This document then proceeds to analyse a survey, resulting in the case study and concludes by confirming the advantages and disadvantages in using Knowledge Visualisation for optimising both safety and productivity on construction sites.</p>

**Paper session 4
Knowledge Networks
- Room Y5 -**

15.50	<p>International virtual industry clusters and the international virtual mega-region: a proposal for a new paradigm for the economic development in knowledge deprived regions for the new-knowledge based economy Meir Russ, Riccardo Paterni Speaker: Meir Russ, University of Wisconsin-Green Bay, USA</p> <p>The New-Knowledge based economy presents unique challenges to knowledge deprived regions and to industry clusters located in such regions. ICT (Information-Computer Technologies) are seen as equalizing technologies, but until recently these technologies did not have such a positive effect on knowledge deprived region due to the unique nature (stickiness) of knowledge. This paper is proposing that recent technological development (broadband internet, mobile communication, etc.) and their pervasiveness will cross the geographic barriers allowing for the intimacy needed for new knowledge development and exchange enabling the creation of a so-called "International Virtual Industry Clusters" (IVICs). The paper presents the framework and introduces the key players and indicators that could facilitate the development of such entity.</p>
16.15	<p>Knowledge management benefits from cooperation: evidence on SMEs Marco Comuzzi, Mariano Corso, Chiara Francalanci, Andrea Giacobbe, Stefano Modafferi Speaker: Marco Comuzzi, Politecnico di Milano, Italy</p> <p>The research on KM in organizations is mostly focused on what happens within individual organizations, while we acknowledge a lack of empirical research on KM practices that involve networks of organizations. When we shift the focus to inter-organizational interactions for producing shared knowledge, we argue that competitive advantage can be obtained only by the adoption of common standards and tools for extracting, storing, and sharing knowledge. This research investigates the division of the benefits among the contributing actors and uncovers underlines a positive relation between the effort put in the knowledge integration, mediation, and filtering activities and the obtained benefits. Generally, the larger firm in the network, which endorses the main efforts of knowledge integration, becomes also the one that benefits most from the initiative. The larger company is also the promoter of knowledge standards and the owner of the technology tools supporting knowledge management processes. These results are obtained through the cross-case analysis of 3 case studies involving networks of SMEs in Italy.</p>
16.40	<p>Community of practice for collaborative research in knowledge management Lorna Uden, Li-Yen Shue, Marja Naaranoja, Marjan Hericko, Kimmo Salmenjoki Speaker: Kimmo Salmenjoki, Seinäjoki University of Applied Sciences, Finland</p> <p>We are now living in knowledge based economy. Knowledge is the most important asset of an organisation. It is not possible for developed countries to compete globally if they do not have the necessary means to harness and exploit intellectual capital to gain competitive advantage. Knowledge management is the key for organisations to survival and succeed. However, knowledge management is a complex process covering many different disciplines. It requires different expertises. No single individual can possess all the needed knowledge. Collaboration is essential. This paper describes how we can collaborate to achieve the EU aim of a knowledge society in research between different universities through the Knowledge Management in Organisation (KMO) group.</p>

17.05	<p>Knowledge management in the healthcare sector: some lessons from the NHS Alan Eardley, Alex Czerwinski Speaker: Alan Eardley, Staffordshire University, Staffordshire, United Kingdom</p> <p>This paper looks at some of the issues relating to the use of knowledge management (KM) in the National Health Service (NHS) and general practice in primary healthcare in the United Kingdom (UK). It contains an examination of two of the implementations and applications of KM in healthcare and discusses some of the KM strategies, systems and tools that are found in the sector. It is contended that healthcare is knowledge intensive and will benefit from the effective application of KM in improving its efficiency, improving its service and reducing its cost. Finally, the current approach to KM in healthcare is reviewed and recommendations for 'best practice' in the healthcare sector are offered, which can benefit organisations in other industrial and business sectors.</p>
End Conference Session 1	
18.20	Shuttle from university campus to Sternatia (Lecce)
18.45	Tour guide in the historical centre of Sternatia, Lecce
20.30	Social dinner at ex-convento dei Domenicani in Sternatia, Lecce
23.00	Shuttle from Sternatia to Hotel Tiziano and to Hotel Scacciapensieri

September 11th 2007

Conference session 2

09.00	<p>Data and Knowledge Sharing in Organizations via Automatic Schema Matching Prof. Avigdor Gal Visiting Assistant Professor, University of Maryland, College Park Member of the IFIP WG 2.6 on Data Semantics Member of CoopIS (Cooperative Information Systems) Advisory Board IEEE Senior Member</p>
	<p>Abstract of the lecturer Schema matching, the matching of concepts describing the meaning of data in heterogeneous distributed data sources is one of the basic operations required for data and knowledge sharing. Due to the cognitive complexity of this matching process it has traditionally been performed by human experts. For obvious reasons, manual concept reconciliation in dynamic environments (with or without computer-aided tools) is inefficient to the point of being infeasible, and so cannot provide a general solution for semantic reconciliation. The move from manual to semi-automatic schema matching has therefore been justified in the literature using arguments of scalability and by the need to speed-up the matching process. Researchers also argue for moving to fully-automatic (that is, unsupervised) schema matching in settings where a human expert is absent from the decision process. In particular, such situations characterize numerous emerging applications triggered by the vision of the Semantic Web and machine-understandable Web resources.</p>
Panel session	
10.00	<p>Perspective on "New trends in Knowledge Management" Chair: Prof. Lorna Uden, Staffordshire University, United Kingdom Speakers: to be defined</p>
11.00	Coffee break
Workshop session "Breakthrough results on solutions and technologies for Knowledge Management" - Room Y4 -	
11.20	<p>Towards semantic resource classification in organizational environment Jukka Aaltonen, Ilkka Tuikkala, Mika Saloheimo Speaker: Jukka Aaltonen, University of Lapland, Finland</p> <p>To support the varying organizational resource related management and information needs, this research paper reviews several business oriented resource categorization schemes and their deficiencies in cross-organizational contexts. It is also proposed here that the semantic resource space models and the dynamic construction of them can be used to extend the static resource categorizations in order to enable the communication and sharing of knowledge, intra- or cross-organizationally, about the individual (and domain-area) specific resource classification representations.</p>

11.35	<p>A framework for modeling business processes in collaborative work environment Antonio Filograna, Dario Lombardo, Nunzio Ingraffia, Leandro Loiacono, Angelo Corallo, Dario Za Speaker: Dario ZA, eBusiness Management Sector of Scuola Superiore ISUFI, University of Salento, Italy</p> <p>In this paper it will be introduced the bxModeller functional changes. bxModeller is an open source web-based application tool, that supports the Business Process modelling. These new functionalities will allow to widen the tool's modalities of use. A benchmark of different similar tools will be examined and motivations and their analysis will be discussed. The objective is to improve the bxModeller and to make it proper to a collaborative environment, this will allow to many users to contemporarily access at the same project, with an access mode defined by the affiliation profile, more over it will enable the user to work and to make changes visible to others team's partners in real time.</p>
11.50	<p>Evaluation of knowledge management in knowledge intensive business Rayko Toshev, Tanatip Kamdee, Josu Takala Speaker: Rayko Toshev, Department of Production, University of Vaasa, Finland</p> <p>The purpose of this paper is to evaluate Knowledge management (KM) in knowledge intensive organizations. By AHP model for appraisal of company's strategic areas of focusing and segregating know-how to sub-criteria we define weights to the factors contributing to competitive competence of the firms. By means of AHP results, Knowledge Management are then compared to the highest valued of sub-criteria. Our main hypothesis is that knowledge intensive organizations should have high level of attention toward creating and distributing knowledge as their strategic goal. This requires well balanced concept between R&D, Knowledge Management, Creativity, Problem solving and Organization's learning for Know How efficiency in a network environment. Undervaluation of any of these components may result in unfocused know-how management system and loss of opportunities and competitiveness.</p>
12.05	<p>Hints for designing KM architectures. Theoretical insights from library and cognitive science Marco De Maggio, Stefania Protopapa Speaker: Stefania Protopapa, SICS - University of Roma Tre, Italy</p> <p>The importance of knowledge for the growth of organizations makes Knowledge Management a central focus for a number of disciplines that inform, and are informed by, the way of creating, sharing and applying knowledge. Starting from an "organizational view" of KM as a means to learn, the paper presents the recent contributions coming from learning theories, library and cognitive sciences, moving from the collective dimension of organizational learning toward the analysis of the individual dimension of learning, framing the affective, psychological and physical conditions of the KM system users, as useful insights to guide the drawing of KM architectures able to face each phase of the learning experience.</p>
12.20	<p>Detecting the information structure of a community. Methodological insights from social network and content analysis Marco De Maggio, Francesca Grippa Speaker: Francesca Grippa, eBMS - S. S. ISUFI - University Of Salento, Italy</p> <p>The essay presents the preliminary findings of a wider research aimed at drawing a methodology of investigation about the information structure of a community. It summarizes the theoretical insights coming from the literature about the double grounds of analysis involved in the project: the Social Network Analysis, useful to provide a representation of the structural composition of a community, and to identify social dynamics and roles; and the Content Analysis, employed to map the "topical content" of the information flow inside the community, to broaden the investigation from the "who" and "how" of the communication patterns to the "what" of the information flow.</p>
12.35	<p>Customer knowledge and KM - based CRM Antonio Lorenzon, Pasquale Del Vecchio Speaker: Pasquale Del Vecchio, eBMS - S. S. ISUFI - University of Salento, Italy</p> <p>Customer Relationship Management (CRM) is a theme of extreme actuality in Knowledge Management (KM) and Relational Marketing literature. Anyway, if the role played by KM in firms' CRM success has been largely discussed, the conditions in which this happens are still unknown. In this article we present the findings of a study on two cultural and national different firms' approaches at CRM. The results obtained offer interesting evidences in the strategic discussion about CRM success' key-factors and present several further research issues in the domain of customer knowledge management.</p>

12.50	<p>A tool for measuring the suitability of creating collaborative learning environments Ayham Fayyumi, Heba Mohammad, Wael Assaf Speaker: Ayham Fayyumi, eBMS, S. S. ISUFI, University Of Salento, Italy</p> <p>The success of collaborative learning environments requires learners to learn together. However, collaborative learning becomes powerful when it occurs in the context of communities of practice, and when collaborative tools are in use. As part of an on-going Italian project (eLF@MED – e-Learning distributed Framework for Mediterranean Countries), that aims at creating a Virtual Collaborative Learning Environment in different Mediterranean countries, this study aims to provide a conceptual model and a tool to measure the suitability of creating a virtual learning community.</p>
<p>Software demonstration - Room Y5 -</p>	
11.20	<p>DISCoRSO tools – on the responsibility of eBMS and Engineering S.p.A., R&D Lab</p> <p>This presentation provides a view of current research activities of DISCoRSO project. The Project aims at supporting clusters of firms, detecting modalities to drive firms towards process innovation, methodologies to acquire needs and ICT solutions that better support the interactions within companies clusters. According to coordination needs of project domains, DISCoRSO solutions lead to the creation of a service oriented architecture, able to identify potential interlocutors and invoking services by means of common vocabularies, development tools, and peer-to-peer interaction mechanisms. Such solutions will be validated with demonstrators into two main domains, the textile and the agri-food industry. Within the presentation, we would promote the initiative "Enjoy the cluster, join Us!", in order to aggregate enterprise research laboratories, research institutes, education, in a virtual community that shares real world applications, experiences, ideas, opportunities related to internetworked enterprise and virtual cluster. We will ask you to join us and to realize the community!</p>
12.00	<p>SpagoWorld Initiative and Spago4Q: new trends toward Process Modeling Daniela Tura, Engineering S.p.A., R&I Division</p> <p>In today's software companies, different products are developed following different development processes (waterfall, evolutionary, agile processes, and so forth), making difficult for software assessors to produce uniform evaluations of enterprise-wide process preserving maturity and effectiveness. Traditional process modeling techniques associate specific measurement frameworks to each process; reports generated for different processes are difficult to reconcile in a single company-wide vision. Furthermore, achieving a certification, like CMMI or ISO 9001-2000, requires a uniform set of data to be evaluated by assessors or by companies themselves. It is important for managers to create a common environment, which allows controlling all aspects of the software development process, producing and giving consistent quality and maturity/capability oriented reports. For these reasons, a new trend in process modeling is emerging, decoupling the development process, the underlying data structure, and the measurement and reporting framework.</p> <p>Such independence can be reached by adopting a common structure (a meta-model), for all aspects of process measurement activity. The definition of a meta-model for the development process leads to the instantiation of individual models for any specific development process, preserving relations consistence between specific instances of the measurement model.</p> <p>Spago4Q (SpagoBI for Quality) realizes a new approach to software development process monitoring. Spago4Q integrates an advanced meta-model representation for the process which makes it fully independent from the specific development process, from the underlying data representation technique, and from certification/measurement frameworks.</p> <p>The presentation provides an overview on the Engineering's SpagoWorld Initiative (www.spagoworld.org). The Initiative is a sample of a FOSS ecosystem based on the global sustainability of open source software development. Starting from a short presentation of SpagoBI (www.spagobi.org), the Business Intelligence Free Platform, main guidelines of the Spago4Q project (www.spago4q.org, a SpagoBI specialization) are outlined. A Spago4Q demo is also provided.</p>

12.40	<p>ODDI(Ontology Driven Data Integration): an FCA based approach on mapping generation. Marcello Leida, Department of Information Technology, University of Milan, Italy</p> <p>We present an overview of ODDI an Ontology Driven Data Integration system based on Formal concept analysis and instance comparison. Data Integration systems are used to integrate heterogeneous data sources in a single view. Following the Global-as-View approach the data is retrieved through a common conceptualization, that in our system is modelled as an ontology. This paper focuses on the problem of matching and mapping of elements between the common ontology and the data sources. The problem of query translation is also mentioned for sake of completeness, but it will be treated in detail in a future paper. Recent works on Business Intelligence do highlight the need of trustable and sound data access systems. We propose a system based on FCA to generate the mapping to the common representation and the relations between the heterogeneous data sources.</p>
13.15	Lunch break
<p>Paper session 5 Knowledge Management Strategies - Room Y4 -</p>	
14.30	<p>Explicit knowledge management and reuse Om Kumar Harsh Speaker: Om Kumar Harsh, University of New England, Armidale, Australia</p> <p>A new idea of independent knowledge reusability is being proposed for the knowledge management in three dimensions by extending the two dimensional knowledge management models of Nonaka and Takeuchi and MITRE. It is being proposed that Knowledge Reusability should be treated independently as a third dimension unlike the model of Nonaka and Takeuchi where knowledge reusability has not been considered and MITRA's models in which the knowledge reusability was considered along with knowledge creation and influence activities (MITRA's models). Present model demonstrates analytically that knowledge reusability may enhance the effective knowledge in an organization and may have its independent existence. Present work may be useful to manage knowledge during software reuse and related activities.</p>
14.55	<p>Knowledge management, learning organisation and human resource management. Old wine in new bottles? Laurence Elwood Speaker: Laurence Elwood, Galway-Mayo Institute of Technology, Galway, Ireland</p> <p>The role of human intervention in the production of goods and services has changed significantly in recent years. Land and labour are now deemed less significant than the combination of knowledge embodied in a product. Some writers (see Drucker 1993; Giddens 1993; Kessels 1996), suggest as a strategic priority the maximisation of knowledge productivity. This involves the signalling, absorbing and processing of relevant information, generating and disseminating new knowledge and applying this knowledge to the improvement and innovation of products, processes and services. Balasco and Stayer (1997) describe this stored information and value creating potential as intellectual capitalism, for which they suggest knowledge workers act as a repository. The recognition of knowledge capabilities is also embedded in the strategic literature and is recognised by some (see Easterby-Smith et al 1998; Garvin 1994; Applebaum& Goranson 1997) as representing an organisations only sustainable competitive advantage in turbulent unpredictable environments. This paper reviews the literature on knowledge management and learning organisations and investigates their conceptual foundations and inter-relationships. Developments in both fields of study will then be viewed from the lens of both organisational trainers and human resource development specialists.</p>

15.20	<p>Challenges of knowledge sharing in project business Marja Naaranoja, Maqsood Sandhu Speaker: Marja Naaranoja, Vaasa University of Applied Sciences, Finland</p> <p>The paper aims to describe difficulties in knowledge management in project business, and to suggest solutions to these difficulties. The most important challenges in project business are cultural—how managers enable learning and how people can learn from mistakes most effectively. Structural factors in knowledge management are also of importance. There is a need for workshops and in-depth interviews regarding the conditions of knowledge-sharing in project business.</p>
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Paper session 6
Knowledge Management Technologies
- Room Y5 -

14.30	<p>Expert system use intention and advice acceptance Houn-Gee Chen, James J. Jiang, Gary Klein Speaker: Houn-Gee Chen, National Taiwan University, Taiwan</p> <p>To gain the full value of expert systems (ES), an organization must ensure usage of the technology and that users are heeding the decision advice of the system. We report on a study that investigates variables relating to an intention to use an ES and acceptance of ES advice. Perception of usefulness and ease of use model intent to use ES technology. A separate model of persuasion relates measures of confidence to the acceptance of the advice provided by an expert system. A laboratory study of 205 student subjects utilizing a computer-selection ES served to test the two models. The study data confirmed the two models and also indicated that intent to use an ES and acceptance of the advice provided by the systems relate to different sets of variables. Organizations employing ES for crucial decisions must be alert to design an ES to build acceptance along both considerations.</p>
14.55	<p>Matching operators in data integration Paolo Ceravolo, Alex Gusmini, Marcello Leida Speaker: Paolo Ceravolo, University of Milan, Italy</p> <p>This paper discusses the role of matching operators in Data Integration process. The paper proposes a categorization of matching operators, with the aim of distinguishing different relations to the possible goals of an integration process and their impact on the implementation of the mappings defining this integration. In order to lead the discussion some example.</p>
15.20	<p>The role of knowledge in designing an agent platform for home care Akos Hajnal, Antonio Moreno, Gianfranco Pedone, David Riaño, Laszlo Varga Speaker: Gianfranco Pedone, Computer and Automation Research Institute of the Hungarian Academy of Sciences, Hungary</p> <p>There is a great demand on the application of Artificial Intelligence techniques and Multi-Agent Systems in health care, since traditional techniques are often not suitable to manage complex tasks that highly change in time or to adapt to unexpected events. The codification of health care treatments as well as the formalization of domain, application knowledge served as an explicit, a priori asset for the agent platform to be implemented. However, the system is required having the capability of applying new, implicit knowledge emerging from physicians on the fly. This paper presents a methodology in modeling and implementing an agent system for home care that is also able to admit and apply new medical knowledge.</p>
15.45	Coffee break
<p>Paper session 6-bis Knowledge Management Technologies - Room Y5 -</p>	
16.00	<p>Stockwatcher: a semantic web application for custom selection of financial news Laurens Mast, Alex Micu, Flavius Frasinca, Viorel Milea, Uzay Kaymak Speaker: Viorel Milea, Erasmus University Rotterdam, Netherland</p> <p>In this paper we present StockWatcher, an OWL-based application that enables the extraction of relevant news items from RSS feeds concerning financial markets. The application's goal is to present a customized, aggregated view of the news categorized by different topics and at the same time rate these news items based on their relevance. The selection of the relevant news items is based on a customizable user portfolio.</p>

16.25	<p>Toward semantics-aware representation of digital business processes Cristiano Fugazza, Paolo Ceravolo, Lianne Bodenstaff, Andreas Wombacher Speaker: Cristiano Fugazza, University of Milan, Italy</p> <p>An extended enterprise (EE) can be described by a set of models each representing a specific aspect of the EE. Aspects can for example be the process flow or the value description. However, different models are done by different people, which may use different terminology, which prevents relating the models. Therefore, we propose a framework consisting of process flow and value aspects and in addition a static domain model with structural and relational components. Further, we outline the usage of the static domain model to enable relating the different aspects.</p>
16.50	<p>Ontodesign: a domain ontology for building and exploiting project memories in mechanical design projects Davy Monticolo, Vincent Hilaire, Abder Koukam, Samuel Gomes Speaker: Davy Monticolo, Zurfluh-Feller Company And Set Laboratory, University Of Technology UTBM, France</p> <p>This paper presents a knowledge management experiment realized in an industrial company. Our research concerns the development of a project memory to capitalize Information and Knowledge created, shared and reused in a product design project. The project memory is based upon a domain ontology called OntoDesign which enables to easily exploit it. This is implemented with the Semantic Web technologies in order to provide a framework for the annotation and the reuse of knowledge. This article describes the design rationale of OntoDesign.</p>
17.15	<p>An integrated approach for modeling business processes using BPMN and XPD standards Antonio Filograna, Gabriele Giunta, Nunzio Ingraffia, Leandro Loiacono, Angelo Corallo, Dario Za Speaker: Dario Za, eBMS - S. S. ISUFI - University Of Salento, Italy</p> <p>This paper aims to introduce the bxModeller, an open source web-based application tool, to support a business user in the modelling of the Business Processes. The graphical notation used is Business Process Modelling Notation (BPMN), an OMG standard for processes modelling. Moreover, the tool allows to traduce Business Process Diagram in a business process execution language (XML Process Description Language), which can be understood by a workflow engine. In this paper, we describe the architecture, functionalities and potentialities of the bxModeller.</p>
17.40	<p>Collaborative Tools in SME Based Software Development Aki Vainio, Kimmo Salmenjoki Speaker: Kimmo Salmenjoki, Seinäjoki University of Applied Sciences, Finland</p> <p>This paper gives viable approaches for knowledge management with open source like tool usage beyond managing and communicating software development work. Ideas and approaches in the open source community process are presently expanding to Web 2.0 and other knowledge sharing efforts. This paper describes the way one of these tools Trac can be used in a small software company as a repository of information and knowledge. With this approach we suggest Trac as an in-house integration platform as it has important roles in many of the knowledge sources and processes of a software development company for SMEs (Small and Medium Enterprise).</p>
End conference session 2	
18.15	Conference closure
19.00	Shuttle from university campus to Lecce City Terminal/Brindisi airport