9th European Conference on Knowledge Management

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### ECKM 2008

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Preface

These proceedings represent the work of presenters at the 9th European Conference on Knowledge Management (ECKM 2008).

The Conference is hosted this year by Southampton Solent University. The Conference Chair is John Rees and the Co-Programme Chairs are Deogratias Harorimana and David Watkins, all from Southampton Solent University.

The opening keynote address is given by the Chief Executive of Ordinance Survey, UK; Vanessa Lawrence. On the second day of the conference Professor Frank Land from London School of Economics leads a round table debate on “The Management of Knowledge and Knowledge Management”. To further enhance the conference experience there is a Knowledge Café led by David Gurteen.

A primary aim of the event is for academics concerned with current research findings and for those from the wider community involved in Knowledge Management, to present their findings and ideas to peers from Knowledge Management and associated fields. A Second aim of ECKM is to allow practitioners and academics across the field of Knowledge Management to meet those who hold ideas in a face to face interaction, forge long-lasting networks and linkages with colleagues from similar areas of interests. We hope that the conference will help attendees advance in their understanding of how firms and countries generate and exploit knowledge to achieve a competitive advantage, and drive their innovations forward. The range of issues and mix of approaches followed will ensure an interesting two days.

210 initial abstracts were received for this conference. However, the academic rigueur of ECKM meant that, after the double blind, peer review process there are 107 papers published in these Conference Proceedings. These papers reflect the growth in the field of Knowledge Management, and they represent truly global research from some 32 different countries, including Australia, Austria, Belgium, Bulgaria, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Iran, Ireland, Israel, Italy, Japan, Malaysia, Netherlands, New Zealand, Norway, Portugal, Romania, Russia, Spain, Sweden, Switzerland, Taiwan, Turkey, United Kingdom, USA.

We hope that you have an enjoyable conference.

Deogratias Harorimana and David Watkins
Co-Programme Chairs
September 2008

Acknowledgements:
The conference committee would like to thank the support given to the conference this year by Ordance Survey UK
The conference programme committee consists of key people in the Knowledge Management and IS community. The following people have confirmed their participation:

Azizul Rahman Ab. Ghaffar (National Sports Council of Malaysia, Kuala Lumpur, Malaysia); Mohd Syazwan Abdullah (Universiti Utara Malaysia, Malaysia); Raul Abril (Teradata, Barcelona, Spain); Fathalla Alghatas (Bradford University School of Management, UK); Nekane Aramburu (University of Deusto, San Sebastian, Spain); Derek Asoh (Southern Illinois University, Carbondale, USA); Gabriela Avram (University of Limerick, Ireland); William Baker (Speed to Excellence, Lamy, NM, USA); Joan Ballantine (Queen's University Belfast, UK); Frank Bannister (Trinity College Dublin, Ireland); Aurelie Aurilla Bechina Arznien (College University of Bruskerud, Norway); Sandra Begley (University of Birmingham, Edgbaston, UK); Daniel Ben (University of Saskatchewan, Saskatoon, Canada); Diane Benjamin (National Health Service, UK); Egon Berghout (University of Groningen, Netherlands); Maumita Bhattacharya (Charles Sturt University, Albury, Australia); Heather Bircham-Connolly (University of Waikato, Hamilton, New Zealand); Claudia Bitencourt (Universidade do Vale do Rio dos Sinos, Brazil); Karsten Bohm (University of Applied Sciences, Kufstein, Austria); Ettore Bolisani (University of Padua, Vicenza, Italy); Constantin Bratianu (Academy of Economic Studies, Bucharest, Romania); Janis Briedis (Riga Business School, Latvia); Sheryl Buckley (University of Johannesburg, South Africa); Malgorzata Bugajska (University of Luton, UK); Satyadhyan Chickerur (Sona College of Technology, Tamil Nadu, India); Pieris Chourides (Leicester Business School, UK); Ana Maria Correia (Universidade Nova de Lisboa, Portugal); Bruce Cronin (University of Greenwich Business School, UK); Reet Cronk (Harding University, Searcy, Arkansas, USA); Farhad Daneshgir (University of New South Wales, Australia); Enrique Dans (Instituto de Empresa, Madrid, Spain); Monica De Carolis (University of Calabria, Italy); John Deary (Higher Colleges of Technology, Dubai, UAE); Paulette DeGard (The Boeing Company, Seattle, USA); Charles Despres (Conservatoire des Arts et Metiers, Paris, France); Zetta Dooly (Waterford Institute of Technology, Ireland); Yan Qing Duan (Luton Business School, University of Luton, UK); John Edwards (Aston Business School, UK); Jamal El Den (American University of Beirut, Lebanon); Tiit Elenum (Estonian Business School, Tallin, Estonia); Scott Erickson (Ithica University, USA); Mercy Escalante Sao Paulo University, Brazil); Péter Fehér (Corvinus University of Budapest, Hungary); Paul Fuller (Mouchel Group, UK); András Gabor (Budapest University of Economic Sciences and Public Administration, Hungary); Leslie Gadman (International Business School, Isle of Man, UK); Elli Georgiadou (Middlesex University, UK); Cecile Gode-Sanchez (Resarch center of the French Air Force, France); Andrew Goh (International Management Journals, Singapore); David Gurteen (Gurteen Associates, UK); Khalid Hafeez (School of Management, Bradford University, UK); Markus Hagemeister (University of the Basque Country, Spain); Leila Halawi (Bethune Cookman University, USA); Matthew Hall (Aston Business School; UK); Melpita Handzic (Sarajevo School of Science and Technology, Bosnia and Herzegovina); Deogratias Harorimana (Southampton Solent University, UK); Igor Haryszkiewicz (University of Technology, Sydney, Australia); Peter Heisig (University of Cambridge, UK); Remko Helms (Universiteit Utrecht, Netherlands); Richard Herschel (St Josephs University, Philadelphia, PA, USA); Ali Hessami (Atkins Global, UK); Jiazhong Hong (Lappeenranta University of Technology, Finland); Ashok Jashapara (University of Loughborough, UK); Silva Karkoulian (Lebanese American University Beirut Campus, Lebanon); Mounir Kehal (International University of Monaco, Monte Carlo, Monaco); Andrew Kok (University of Johannesburg, South Africa); Monika Kriaucioniene (Kaunas University of Technology, Lithuania); Bee Theng Lau (Swinburne University of Technology, Australia); Maurice Lefebvre (University of Mons, Belgium); Jeanette Lemmergaard (University of Southern Denmark); Ilidio Lopes (Polytechnic Institute of Santarém, Portugal); Adnan Maleaou (IAE Toulon, La Garde, France); Awain Mannie (Dept of Finance, Port Elizabeth, South Africa); Virginia Maracine (Academy of Economic Studies, Bucharest, Romania); Farhi
Biographies of Conference Chairs, Programme Chair and Keynote Speaker

Conference Chair

**Professor John Rees** obtained a BSc(Eng) Hons degree in Electrical Engineering from Imperial College and a PhD in Image Processing from the University of Glamorgan. He has worked for MoD, Intel, and Microsystem Services, in the areas of communications and computer systems. He joined Southampton Solent University as Dean of the Faculty of Technology following teaching, research and management positions with Staffordshire University and the University of Glamorgan. His personal research interests are in business technology, mobile technology, machine vision and the technical aspects of the knowledge economy, particularly in the productising of knowledge for commercial advantage. He has published widely on aspects of information placement in large scale distributed and mobile systems, machine vision, and image processing.

He is an enthusiastic proponent of technology transfer, skills enhancement, and the engagement of the universities as the engines of the knowledge economy, in areas related to which he has served on regional and national committees and led major projects. He has managed and delivered large scale technology interventions for the benefit of regional businesses, including the Expert Centre for the Support of Electronic Commerce (ECSEC), Mobile Technology for Business (MTB), TRY3G, WM Unplugged, West Midlands Mobile and Wireless, and others. His consultancy activities have included work for BT, Rank Xerox, Networking West Midlands, and numerous small businesses in communications, customer research, manufacturing, software development, business processes and strategy. Within the university, he is leading the development of a centre of excellence offering an integrated portfolio of support services, consultancy, demonstration facilities, and training in the applications of knowledge management for business benefit in Southampton and the broader Hampshire area.

Programme Chairs

**Deogratias Harorimana** is a PhD student at Southampton Solent University. Prior to that, Deogratias graduated in Business Information Management. His Doctorate's primary research focuses on the “Role of Gatekeepers in the Knowledge creation and Transfer Process”. This research focuses on Manufacturing, High Tech, and Agri biotech industries and financial firms. He publishes in the area of knowledge networks, Communities of Practice, Identity formation and impact of culture on knowledge transfer. Deogratias chairs the UK’s Royal Geographical Society and the Institute of British Geographers Post Graduate Research Group. He is a member of the European Institute of Development Studies, and a regular speaker and reviewer to the European Conference of Knowledge Management. He is a co-author of the book “Le Café et les Caféteurs du Rwanda, quels Sont les motivations?” Publibook, Paris (Forthcoming)

After a busy day, Deo does charitable work in the areas of promoting massification of ICT in developing countries. His initiative “Educational Resources for Africa (ERFA) has been working with H.E.I in the UK to help rebuild higher Education institutions in Rwanda after the 1994 genocide. This initiative is expanding and currently working with seven UK’s HEI and colleges with Southampton Solent University leading the way through its International Office.

**David Watkins** trained as a natural scientist and science policy analyst. He joined Southampton Solent University as Professor of Management Development after research, teaching and management positions at Bournemouth University and Manchester Business School. He has authored a number of books and published more than 100 articles in the academic and popular press, ranging from *Nature*, *Research Policy* and *Small Business Economics* through to *New Scientist*. Many of these publications have dealt with entrepreneurship, small business, innovation and local economic development. They include: *The Survival of the Small Firm: Entrepreneurship and the Economics of Survival*; *The Small Business Kit*; and *The Working Partnership: SMEs and Biodiversity*. In the 70s he also pioneered the use of multimedia packs related to broadcast and video TV. These included *Be Your Own Boss* for Yorkshire Television and *The Business of Excellence* for the Open College.
Professor Watkins has consulted to organisations ranging in size from one-man bands to companies in the European top ten, governments and international organisations such as the Asian Development Bank and the European Parliament. Most of these assignments have related to activities which were not just new to the organisation but for which no ground rules previously existed. For example, he undertook the feasibility study for one of the earliest Science Parks in the UK and designed an International Community Relations Policy for a major oil company. He also regularly works for the European Commission as an evaluator, assessor or scientific expert on vocational development projects and socio-technical research programmes.

Professor Watkins has edited or served on the advisory board of a number of academic journals including *International Small Business Journal, Strategic Management Journal* and *Annual Review of Progress in Entrepreneurship Research*, as well as organising many international conferences.

**Keynote Speakers**

**Vanessa V. Lawrence CB.** Vanessa joined Ordnance Survey in 2000, moving from a global management post in strategic marketing and communications at software company Autodesk®. She has extensive experience in both geographical information systems and publishing. She is the adviser to the British Government on mapping, surveying and geographic information, Chair of the Agency Chief Executives’ Association, Chair of the GI Panel, a member of the Board of Directors of the Open Geospatial Consortium and a Patron of MapAction.

Vanessa is a Visiting Professor at two Universities, a Chartered Geographer, a Fellow of the Royal Geographical Society and of the Royal Institute of Chartered Surveyors and a Companion of the Chartered Management Institute. She has been awarded six Honorary Doctorate degrees and is an Honorary Fellow of University College London®. Vanessa was appointed as a Companion of The Most Honourable Order of the Bath (CB) in the Queen’s 2008 New Year honours list.

**Frank Land** started his career in computing with J. Lyons, in 1953, working on the pioneering LEO Computer first as a programmer and then as a systems analyst. In 1967 he left industry to join the London School of Economics on National Computing Centre grant to establish teaching and research in systems analysis becoming Professor of Systems Analysis in 1982. In 1996 he joined the London Business School as Professor of Information Management. He retired in 1991 and was appointed Emeritus Professor at the LSE in the Department of Information Systems in 2000. Frank Land has been Visiting Professor at the Wharton School, the University of Sydney, the University of Cairo, Bond University, Curtain University, and is currently Visiting Professor at Leeds Metropolitan University. He has twice served as specialist advisor to the UK House of Commons Select Committee investigating the UK computer industry. He is past chairman of IFIP WG 8.2 and on the editorial board of a number of academic journals. He is a Fellow of the British Computer Society and was awarded a Fellowship of the AIS in 2001 and the AIS LEO Award in 2003.

As a researcher Frank has worked with Enid Mumford and others on sociotechnical ideas since the early 1970 and is currently active with the British Computer Society’s Sociotechnical Specialist Group. Working with Barbara Farbey and David Targett he has carried out research and written papers and books on the problems and tools of IS evaluation. More recently he has become involved with work in Knowledge Management focusing on the manipulative aspects of KM.
Biographies of contributing authors (in alphabetical order)

Eckhard Ammann is a professor for computer science at the Reutlingen University, Germany, since 1992. Before that, he spent 8 years with the IBM company doing research and development in parallel systems and system structures. His research interests include knowledge management, information management, business process modeling, distributed systems, and virtual organisations.

Salwa Abullah Alhamoudi has more than 12 years’ experience as a manager, trainer and consultant in both public and private sector organizations in the Kingdom of Saudi Arabia. She is currently a doctoral student in the Business School at the University of Portsmouth, UK, where she is researching the possible adaptation of techniques for performance measurement (the Balanced Score Card) to strategic knowledge management in a public sector company.

Gunnar Andersson holds a MSc in Physics from University of Bergen, received in 1995. He is currently working as an assistant professor at the Faculty of Engineering at Ostfold University College. His teaching duties include Physics and Mechatronics. His research interests include Enterprise development and work life research. He is member of the Value Creation 2010 (VS2010) research team in Østfold and from January 2007 he is part of the Enterprise Development and Work Life Research PhD program at NTNU, Trondheim.

Daniel Andriessen is Professor of Intellectual Capital at INHOLLAND University of professional education, The Netherlands, and director of the INHOLLAND Centre for research in Intellectual Capital, a research group set up to study the impact of the intangible economy on people and organizations. Recently, his centre organized the very successful Intellectual Capital Congress 2007 in May in Haarlem (The Netherlands), a congress that will be repeated in May 2009 (www.iccongress.com). Through his Weightless Wealth Research Group he offers help to companies, governmental and educational organizations, academics, and students on the subject of knowledge management and intellectual capital valuation and measurement (www.weightlesswealth.com ). He is a popular speaker at conferences and likes to do guest lectures, presentations, and training sessions on a variety of subjects related to the growing importance of intangibles

Gabriella Atanasiu is a Professor in the Department of Structural Mechanics within the Faculty of Civil Engineering and Architecture, since 1995, and a Ph.D. Supervisor, since 1999. She is also Vice Dean and her main research areas are: Modeling and Simulations in Structural Dynamics and Performance-based Earthquake Engineering.

Pierre Barbaroux is senior researcher at the Research Center of the French Air Force (CReA), in the Defense and Knowledge Management (MK) department. He holds a Ph.D. degree in economics from the University of Nice – Sophia Antipolis. His privileged research fields are cognitive economics and complex adaptive systems. His current research interests focus on industrial organization, organization theory and innovation.

Peter Bednar is an Engineer and Senior Lecturer. Since 1997, he has been working as an academic. His research covers contextual analysis, organizational change and information systems development, and he has published several book chapters and many articles in these fields. He is currently a member of the Information Systems group in the School of Computing at the University of Portsmouth, UK and is also affiliated to the Department of Informatics at Lund University, Sweden.

Sandra Begley is a researcher in Enterprise and Economic Geography at the University of Birmingham, UK. Previously, Sandra was a Senior Lecturer in Information and Applied Business Systems. She is a Fellow of the HEA, Professional member of the ACM and member of the RSA. Her major research interests are in temporary coalitions, IC and collective knowledge and the implications for firm renewal, growth and innovation.

Marco C. Bettoni is director of research & consulting at the Swiss Distance University of Applied Sciences (FFHS) focusing on Knowledge Cooperation. Since 1981 research in Knowledge Theory from a Radical Constructivist point of view. From 1977 to 2005 researcher, engineer and lecturer with industrial and academic organisations in the domains of machine design, engineering education, IT development, knowledge engineering and knowledge management.

Daniel Brännström is a Ph D student at Uppsala University and is currently involved in the project The Capital Market's use of Intellectual Capital?.. His main area of research is how capital market actors through their use of intellectual capital recognize intellectual capital items. Capital markets that are studied are the direct investment market (Mergers & Acquisitions) as well as the credit market.

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Jytte Brender's scientific focus is on the theoretical and practical aspects of Quality Management and Technology Assessment, the topic of her European Doctorate & PhD in Medical Informatics (1997). Presently, she is associate research professor at Aalborg University. Her research and interest range from constructive assessment (dynamic, self-reflective, purpose-driven and corrective evaluation), to holistic analysis of information flow, covering the breadth of organisational change and including the theoretical aspects of the quality of semantic aspects of medical knowledge.

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Knowledge Management Paradoxes
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Abstract: Knowledge management, as an academic area, is maturing; however, there are still problems connected with both the diversity of the theoretical base and the gap between theory and its practical application. In this paper we tackle these problems by reviewing a number of basic knowledge management theories with the intention of formulating a more integrated and at the same time practical planning framework. The focus guiding the literature selection is on basic theories about the nature of knowledge management, theories that expose the complex nature of knowledge in organizations. We examine these theories and try to understand what could be perceived as the paradoxical nature of these theories. Here we understand a paradox as something seemingly self-contradictory though perhaps actually well-founded statement. We focus on four areas or themes: 1) knowledge as the key resource of a business, 2) knowledge as a competitive force and source of growth, 3) the nature of the management of a knowledge resource, and 4) the management of knowledge workers. From a practical point of view, the conflicting arguments of these theories can be seen as possible strategic options. Based on these discussions we then formulate a framework, or what might be called a strategic option generator. As a concluding discussion we focus on the contribution of IS/IT to the realization of the different possible strategic options. This is done on a rather general level, where we examine the possibilities of IS/IT in relation to the paradoxes.

Keywords: Knowledge management, theoretical paradoxes, planning framework

Transferring Knowledge of Manufacturing Techniques in Multi-National Corporations: A Review of the Literature
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Abstract: With the growth of the multi-national corporation (MNC) has come the need to understand how parent companies transfer knowledge to, and manage the operations of, their subsidiaries. This is of particular interest to manufacturing companies transferring their operations overseas. Japanese companies in particular have been pioneering in the development of techniques such as Kaizen, and elements of the Toyota Production System (TPS) such as Kanban, which can be useful tools for transferring the ethos of Japanese manufacturing and maintaining quality and control in overseas subsidiaries. Much has been written about the process of transferring Japanese manufacturing techniques but much less is understood about how the subsidiaries themselves – which are required to make use of such techniques – actually acquire and incorporate them into their operations. This research therefore takes the perspective of the subsidiary in examining how knowledge of manufacturing techniques is transferred from the parent company. There is clearly a need to take a practice-based view in understanding how the local managers and operatives incorporate this knowledge into their working practices. The aim of this paper is to review the literature in order to build a conceptual framework for the continuing research. As well as reviewing the longer-established technology transfer and international operations management literature, this paper draws upon the KM and strategy literature to build a synthesis of research into knowledge transfer in the multinational corporation. A particularly relevant theme is how subsidiaries both replicate and
adapt knowledge from parents and the circumstances in which replication or adaptation occurs. However, it is shown that there is a lack of research which takes an in-depth look at these processes from the perspective of the participants themselves. This is particularly important as much KM literature argues that knowledge is best viewed as enacted and learned in practice – and therefore transferred in person – rather than by the transfer of abstract and de-contextualised information. What is needed, therefore, is further research which makes an in-depth examination of what happens at the subsidiary level for this transfer process to occur.

Keywords: Knowledge transfer, subsidiary in MNC, in-depth practice-based view

Enterprise Knowledge Communities and Business Process Modelling

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Abstract: An integrated approach to knowledge management together with an appropriate modeling notation is introduced. It not only combines recognized existing approaches and models for process-oriented and community-oriented knowledge management. In addition this new approach reflects the important contributions of different types of knowledge (i.e. explicit and tacit knowledge) and the various ways of knowledge conversions between them. Furthermore the human roles as single persons, teams, and communities of practice in the enterprise are considered and subject to modelling. The motivation for this approach is the following. Enterprise application integration and service-oriented architectures promise to support structured business processes in enterprises and help to assist and to implement them with orchestrated web services landscapes. The Business Process Modelling Notation BPMN is the modeling language of choice for this purpose. However, BPMN is lacking of knowledge related constructs and is not considering the human role in business processes, be it as individuals or as groups or teams. Understanding the growing importance of knowledge and human involvements for many business processes, a modeling notation for knowledge-intensive business processes including human involvements is needed. Instantiated from a very general meta-model for knowledge management, our new model will fulfil this need. In addition it helps to identify several patterns in knowledge-intensive business processes, for example those indicating monopolized knowledge by single persons, (complementary) the high relevance of a person for a specific business process, or the importance of knowledge communities in the enterprise. As a modelling notation for this approach, an expressional extension of BPMN is proposed. This not only allows for modelling of knowledge-intensive business processes but also for modelling of dependencies of and contributions by single persons and knowledge communities in the enterprise. An example is given which proves the modelling power of this notation. A renewal planning process for a complex product is described, which requires substantial competences and knowledge for its design and implementation. This business process comprises activities of directly involved employees and of relevant knowledge communities in the company as well as various kinds of knowledge to be utilized.

Keywords: Knowledge-intensive business processes, meta-model and model, knowledge conversions, knowledge communities
Knowledge Management in Universities – the CIST Case
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Abstract: The global communication networks provide nowadays access to enormous quantity of information and knowledge coming from a great variety of sources. The information overload raises new challenges to individuals and organizations. First, there is a need for proper knowledge management (KM) at individual level in order to access fast and easy the information, expertise and knowledge necessary for knowledge workers, to avoid duplication of work and knowledge losses. Second, organizations should integrate knowledge management into their business/functional processes in order to raise their own effectiveness and productivity. This is equally valid for business, governmental and research organizations. Finally, there is a need for integrating knowledge audit into company practice in order to monitor knowledge management results and impact on the organization, and focus further knowledge management actions in order to gain maximum benefits. The paper presents, initially, the concept of knowledge audit. It considers knowledge audit as an instrument for monitoring KM initiatives, presents the authors understanding of its main goals, and highlights some knowledge audit models described in the research and the business literature. A special focus is made on the methodology of the TRAINMOR KNOWMORE project completed recently within the Leonardo da Vinchi programme of the European Commission. Subsequently, one of the pilot studies within the project and its results is presented in the paper, e.g. the results of a knowledge audit carried out in the Centre of Information Society Technology (CIST) – a dynamic research unit of Sofia University. The central focus of the paper is the need of knowledge workers in an university environment. It presents the main features of the Centre of Information Society Technology of Sofia University and the main findings of a recent pilot knowledge audit in CIST. On this base, the paper proposes a framework for Knowledge Management in CIST, which could be implemented after a pilot trial at the whole university.

Keywords: Knowledge audit, knowledge management, university practical case

How Organizations Learn to Develop Capabilities: The Case of French Fighter Squadrons
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Abstract: This paper investigates how organizational learning provides the organization with effective means to develop capabilities. Building on the distinction between modes and contexts of learning, we introduce a model of organizational learning to study how knowledge is shaped and made explicit, how it is created and shared, and how it is disseminated within the organization. We elaborate on an explorative case study focusing on three French Air Force fighter squadrons. Our main findings can be summarized as follows. First, organizational learning involves a variety of modes and contexts to be aligned and coordinated in order to improve organizational performance. Second, post-flight review enables squadrons to harness critical thinking and open mind attitudes and develop reflective capabilities.

Keywords: Organizational learning, learning strategy, capabilities, knowledge management, after-action reviews
‘Think with your Senses – Feel with your Mind’: Cognitive and Affective Domains in Knowledge Creation and Sharing

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Abstract: On a recent trip to Venice, an advertising hoarding was spotted which read ‘Think with your senses, feel with your mind!’ This reminded the authors to think about the relationship between cognitive aspects of individual and organizational knowledge on one hand and feelings/emotions – the affective domain – on the other. When using knowledge within an organizational context, an individual cannot divorce her understandings from the full range of experiences within which they were developed, i.e. life as it is lived (what Heidegger called ‘Befindlichkeit’). In last year’s keynote address, Daniel Andriessen referred to love as a metaphor in the context of knowledge management discourse. The relationship between feelings, cognitive processes and the creation of ‘knowledge’ is a fascinating area of inquiry in its own right. In this paper, we look at the mythical search for the ‘magic spell’ of IT deployment and treat it as an example of a Knowledge Management issue. The focus of attention is put on the relative contributions of cognitive and affective human processes in knowledge creation and sharing. Drawing on a disparate existing body of work, the authors draw out some useful conclusions in the context of knowledge management in organisational practices.

Keywords: Cognitive and affective domains; metaphor; knowledge work systems

Building and Exploiting Intellectual Capital: The Firm as a Connected, Temporary Coalition

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Abstract: The paper presents the case for the firm as a ‘connected temporary coalition’ that addresses the challenges of and adapts to, its changing environment: in particular, to build, exploit and determine the value of Intellectual Capital (human, structural and relational) enabling different trajectories of renewal and growth in the long term. The paper adopts the perspectives of theoretical pluralism to present distinctive viewpoints in examining the concepts of the theory of the firm and the dynamic nature of knowledge. The study draws on four areas of theory: (a) the institutionalist ideas of New Regionalism in economic geography – in particular the conceptualisation of firms as a temporary, dynamic, place-based coalitions; (b) the structural contingency model of organisation theory coupled with ideas from the knowledge based theory of the firm in exploring changes over time in business activity; (c) evolutionary economics and the perspective it offers on emergent developments, change and time; and (d) knowledge management thinking, and the perspective it offers on Intellectual Capital and its contribution to firm dynamics, drawing on ideas on social interaction, social practices, social contexts, and the impacts of power and control.

The paper extends our understanding of the processes and dynamics operating in and around temporary coalitions, the shifting and reconfiguring of knowledge assets and the role of dynamic capabilities. In addition, the paper challenges earlier concepts of IC as being embedded in business clusters. The paper argues that, collectively, the coalitions of
people that comprise firms deploy their knowledge assets through different forms of organisational arrangement to achieve temporary equilibrium, in order to commercialise knowledge, achieve renewal and generate growth. This perspective on the firm has significant policy implications.

**Keywords:** Temporary coalitions, intellectual capital, enterprise renewal

**Weak Ties Cooperation in the CoRe Knowledge Network**

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**Abstract:** How to implement a collaborative knowledge strategy under conditions of *weak ties*? This paper will first explain how came that we faced this question in the research department of our university, then tell the story of how we are answering it by means of a new kind of knowledge network called “CoRe” and finally reflect on lessons we are learning about weak ties cooperation. The Swiss Distance University of Applied Sciences is organized in a radically decentralized way combined with traditional hierarchical structures and functional divisions. This has led to an insufficient level of interactions between geographically distributed university members (academic staff, students) so that *weak ties* have become the norm. In research one major consequence was that research activities were too much isolated in the departments, human resources were dispersed and research knowledge did not flow enough. Projects were small and less recognised, know how got easily lost and research tools’ development was too slow.

How to meet the challenge of improving research performances under conditions of weak ties like these? Our approach consisted in a collaborative knowledge strategy: to create and cultivate CoRe, an intra-organizational knowledge network of researchers (academic staff, students) organized as a community of practice connecting its members around the common task of *stewarding research knowledge*. This paper provides first an overview of how we are designing, implementing and cultivating the CoRe knowledge network and then reflections on the new subject of *weak ties cooperation* as realized in CoRe.

In the first part, after introducing the background of the CoRe project as well as our approach to knowledge cooperation we will present the development process and focus on the evolution of the network requirements by comparing the initial and a revised version. In both cases these requirements were collaboratively developed by the network members in two large events: a) the network launch, a future search event (June 2006) and b) the 1st Annual CoRe Conference (June 2007). Based on an analysis of the evolution between these two versions, in the second part our paper will provide reflections and key lessons learned about how to design and implement a collaborative knowledge strategy which is able to foster knowledge cooperation under conditions of *weak ties*. Here we will sketch the essential principles of our solution which consists in transferring to knowledge management lessons learned from *bioteams* thus building a bridge between Nature and Culture.

**Keywords:** Collaborative knowledge strategy, weak ties cooperation, bioteams, knowledge cooperation, communities of practice, knowledge networking
Abstract: As a response to the absence of an exhaustive generally accepted accounting principle handling the issue of intangibles, academics and practitioners have developed a plethora of models, methods and tools for identifying, measuring and valuing intangibles. Conscious of this situation, some authors have started asking for empirical studies of how these models make the IC issue clearer to stakeholders in general and specifically to the capital market (Guthrie, et al., 2001; Marr and Chatzkel, 2004).

The introduction of International Financial Reporting Standard (IFRS) 3 (a regulation demanding the identification and valuation of intangible assets in business combinations) may be considered as the opportunity for a practical application of the methods and tools proposed by the Intellectual Capital (IC) community, i.e. to make intangibles such as customer capital, know how, etc. visible in the financial statement. The IFRS3 is a possibility to disentangle the “black-box” of goodwill and for the financial accounting issue to adhere to some of the critique emanating from the IC debate. As a result, the IFRS3 can be seen as an opportunity to test the relevance of the IC models and to reduce the gap between IC Accounting and Financial Accounting (Petty and Guthrie, 2000; Roslender and Fincham, 2001). Drawing on the debate of how to frame intangibles (Chaminade and Catasús, 2007), the aim of the paper is to analyze the distance, from an empirical perspective, between IC accounting and financial accounting in order to understand if a gap exists. Thus we will investigate how firms have applied the IFRS3 by studying what the value-relevance of intangibles is, which intangibles have been identified and valued and what goodwill is in the purchase analyses disclosed. The empirical corpus consists of financial statements of Swedish and Italian listed firms.

The methodology adopted is based on an empirical analysis of the purchase analyses supplied by the firms in the financial statements, referring to the first year mandatory adoption of the IFRS3 (fiscal year 2006). The disclosed information is analyzed through both quantitative and qualitative analyses.

The study finds that the analytical methods are still at a very first stage and consequently there is the trend to appreciate, at least in the financial statement, the majority of the IC as goodwill. The second finding is that even if they represent the minority part of the invisible value of the company, the IFRS3 has really allowed for several intangibles usually not disclosed in the financial statements such as customer relationships, contract portfolio, etc to be made visible. A third finding is the lack of explanations for this amount of goodwill. All in all, the paper highlights that, from an empirical perspective, both financial and IC accounting models are not able to adequately grasp IC “at work”.

Keywords: Intellectual capital, valuation, financial accounting, goodwill, purchase analysis
Knowledge as Energy: A Metaphorical Analysis

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Abstract: The purpose of this paper is to perform a metaphorical analysis of knowledge as energy. This paper is based on a theoretical research concerning the nature, perception, basic laws and challenges brought up by these fundamental concepts of knowledge and energy. The metaphorical analysis of knowledge and intellectual capital has been initiated by Daniel Andriessen and his findings have been presented in several seminal works (Andriessen, 2006; 2008; Andriessen and Boom, 2007). In his work, Andriessen concluded we need to find new metaphors for knowledge. In our theoretical research we shall consider the knowledge as energy metaphor, with energy as the source domain, and knowledge as the target domain, and we are interested in identifying the metaphorical semantic kernel and the limitations of this analysis. The semantic kernel contains: (1) the concept of field as a nonuniform and nonlinear distribution of knowledge; (2) dynamics of potential and kinetic forms of manifestations; (3) dynamics of work and heat, and (4) entropy and syntropy process characteristics. Limitations of this analysis come from the conservation laws of energy transformation which cannot be applied to the knowledge domain.

Keywords: Knowledge, tacit knowledge, explicit knowledge, energy, entropy, metaphorical analysis

Enhancing Semantic Interoperability - A Model for Making Context Explicit

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Abstract: Background: The basic assumption behind the present contribution is that an explicit description of context may solve parts of the barriers in communicating a message reliably. It is concerned with the basic issue of providing meaning to the data processed and/or communicated within/among healthcare telematics / informatics applications. Healthcare professionals when communicating are able to interact syntactically and semantically until they have a common understanding and therefore can proceed. Computer-based systems do not (yet) have a similar functionality. The solution needs "taking into consideration contextual knowledge that cannot entirely be explained and processed with linguistic and terminological approaches", as (Ingenerf 1999, p. 92) expresses the essence of the problem.

Objective: To formulate a model that explicitly handles the context, as an alternative approach or a supplement to facilitate semantic interoperability. The paper is intended as an introduction to a debate.

Method: The meaning of ‘meta’ concepts (in terms of meta-data, meta-information and meta-knowledge) is abstracted, generalised (i.e. re-defined) and applied in a broader sense, based on definitions of the basic concepts.
Results: To illustrate and to make an initial validation of the model, an example case is outlined in full: a female, age 32, pregnant in week 35, obese, and with an elevated plasma-glucose substrate concentration.

Discussion: The contribution extends the existing definition and use of meta-data and meta-knowledge. This approach may supplement existing approaches for solving barriers of semantic interoperability. Furthermore, the model may provide a means for localising existing knowledge-bases and for assessing applicability of a given system for an individual input case and constitutes a potential solution to enable wide-spread application of clinical decision support systems.

Conclusion: The model formulated was successfully applied for the case chosen. Discussions by professionals in a broader forum are called for. Furthermore, pilot applications are needed to fully demonstrate the model’s validity, generalisability and applicability for the purposes suggested.

Keywords: Semantic interoperability; knowledge-based systems; clinical decision support; meta-data; meta-information; meta-knowledge

Knowledge Management in Two Different Organisational Contexts (Local Government Sector Vs. Industrial Sector)

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Abstract: We present the results of two empirical investigations focused on Knowledge Management. One is developed in municipalities which received quality awards and the other in the industrial sector. The main purpose is identification and characterization of organisational processes related to knowledge management. To this end, we consider the research results obtained by Cardoso (2003) within the industrial sector and the results achieved by Brito (2003) within the local government sector. To gather the data for analysis, the knowledge management questionnaire, originally developed by Cardoso (2003), was applied. This questionnaire was validated and adapted by Brito (2003) for the local government sector.

In this way, we propose to describe the results obtained in those two sectors of activity, namely, the industrial and local government sectors. In both studies, we identified four similar factors of knowledge management, with similar characteristics, in as much as the differing items are very few. Despite the different characteristics underlying the contexts under study, it was interesting to note the similarities of the dimensional structure obtained with the scale replication. It is also important to point out that in other organisational contexts (e.g., tourism, creative industries, higher education), the dimensional results have not corresponded to the original structure.

Keywords: Organizational Knowledge; Knowledge management processes; local government sector; industrial sector; comparative analysis
Knowledge Mapping in Decision-making Process: Theoretical Analysis and Application

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Abstract: Decision-making process is based on analysis of large amounts of data, information, and knowledge available in companies’ databases. This analysis needs some form of formalisation. In order to do this successfully data, information, the new knowledge and the way you establish connections with what you already know need to be structured. One technique, which facilitates developing such a structure is sometimes called knowledge mapping.

The aim of our paper is to explain the path from verbal problem definition, over the problem formalisation, mathematical model and its solving, and solution implementation regarding usage of knowledge maps. This process will be demonstrated on a practical “Potatoes case study”.

Keywords: Decision-making, system approach, operations research, knowledge map, map creation process, model creation process

The Impact of Knowledge Management on Quality of Working Life: empirical study with line production workers in the automotive industry

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Abstract: In the "Knowledge Age" the competitive advantages of an organization are supported not only by its business activity but also by the value of its intangible resources. In this context, knowledge became the main factor of economic production, rather than factors such as land, workforce, capital and machinery. Therefore, organisations’ capabilities have been challenged to create, administrate and disseminate use of knowledge, and so they need to increase their practices of knowledge management, inasmuch as these form tools for the orientation, definition and development of strategic organizational horizons and objectives. Concomitantly, and because knowledge is intrinsically human, human resources takes on an increasingly key role in competitiveness and high organizational performance. Therefore, it also becomes essential for organizations to implement practices that develop the quality of working life, so as to develop and increase the degree of satisfaction of their human capital.

In this way, this research aims to evaluate the impact of knowledge management practices on the quality of working life. To accomplish this main goal, two questionnaires were applied: a knowledge management questionnaire (KM, originally constructed by Cardoso 2003) and a quality of working life questionnaire (QWL, originally constructed by Quijano 1999). Our sample is composed of a total of 247 line production workers. Through the implementation of multiple regression analysis, the results allow us to verify that knowledge management processes are perceived by workers as an important influence on the quality of their working life. Considering the four evaluated dimensions of knowledge management practices, “knowledge management practices” and “social and discursive management of knowledge” were predictors of the quality of working life, with a strong
influence on questions related to work support and motivation. Cultural orientation to knowledge was a good predictor of quality of working life when this variable was quantified not only by the clarity of work role but also by the characteristics of the work place. However, the dimension concerned with strategic knowledge management does not reveal a predictive effect on the quality of working life, as would be expected theoretically. This fact raises new questions about the underlying factors of the relationship between knowledge management and the quality of working life.

Keywords: knowledge era; organizations; human resources; line production workers; knowledge management, quality of working life

**Linking Relational Learning with e-Business Through Social Knowledge: A Multi-Sector Comparison**

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Abstract: This paper analyses the role of relational learning on e-business adoption and vice versa. We investigate the implementation of e-business through a relational learning (RL) process by means of an empirical investigation of 203 SMEs in the Spanish telecommunication and the Spanish construction industries (107 firms from the telecommunications sector and 96 from the construction sector). Structural equation modelling reveals that, in order to implement relational learning phases, companies need to provide and support e-business systems as prior steps. These results have implications for e-business managers when they come to formulating policies and making a choice as to organizational capabilities to target in order to ensure effective adoption of e-business systems.

Keywords: e-Business, relational learning, SMEs and multi-sector comparison

**Pilot Studies in Using the Semantic Knowledge of Information in Large Technical Documents to Aid User Navigation**

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Abstract: Much of the knowledge that has been captured and stored for future use is held in traditional, text-based documents. Some of these documents can be very large which can make the retrieving of the knowledge difficult and time consuming. In large technical documents such as military standards, navigation through these documents is usually by traditional linear scrolling or the use of a hierarchical menu. These documents commonly contain semantic knowledge within their text that leads to non-traditional navigation. This non-traditional navigation is normally achieved through users jumping between sections.

This pilot study has been conducted with BAE Systems. It uses the military standard known as the Tactical Data Link (TDL), Link 16 standard. This document is over 7000
pages, which highlights the potential problems that can be experienced in document navigation. Users of these large technical manuals are often searching for specific segments of knowledge from within the text. The text contains sections which can both be and not be semantically modelled. The semantic knowledge usually results in users having to cross-reference between several sections.

**Keywords:** Knowledge retrieval, semantic modelling, document models

**What Problem Are We Trying to Solve? - A Case Study of a Failed Knowledge Management Initiative**

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**Abstract:** This paper concerns action research to establish knowledge management implementation methodology as part of an overall process improvement initiative at the Danwood Group. As a first step, a knowledge audit was carried out of the existing working systems, including a review of computerised information systems used by the company. This audit revealed that two independent systems had a significant overlap of functionality and data stored. A detailed examination of these systems showed that there were potential savings to be made by combining the systems so that they could share the data and some of the functionality. A design proposal was then put to the company to merge the two systems.

The company accepted the proposal in principle, but it never approved the funding to carry out the necessary changes. This led the research team to carry out an in-depth review of their knowledge management implementation approach to discover where it had gone wrong. It was found that while the company management had recognised the inefficiency in their systems and they had accepted the suggested improvement, the initiative had failed as the company had not perceived they had any significant problem with the systems concerned and, therefore, the improvement was given the lowest priority. These systems performed adequately in that they delivered what they were required to do, even if it was not in the most efficient manner, whereas there were other areas of their business where there were problems that required more immediate attention. This meant that there was a lack of enthusiasm to even start the system merger project.

This resulted in a revised methodology for knowledge management initiatives based on an initial problem audit rather than a first step of a knowledge audit. Having a clear idea of “what problem are we trying to solve” has since been shown to produce more enthusiasm by both users and management to drive through the necessary changes and this subsequently leads to knowledge management system implementations that are far more likely to be considered successful.

**Keywords:** Knowledge audit, systems analysis, systems implementation, returns on investment, project failure
Business Benefits of Non-Managed Knowledge
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Abstract: This paper proposes that knowledge cannot be effectively managed, rather that people are so complex and the knowledge they acquire so varied and even in a room where everyone is being taught the same knowledge, uptake is so disparate that to truly manage what an individual knows is impossible. An effective alternative which allows people to maximise their knowledge (even the bits we might not know they know) is to measure the outputs of an individual: what they achieve. The case study in this paper illustrates one innovate company’s design to maximise the knowledge of their employees and how the management-less structure they recently adopted has had a profound effect on the engagement of their workforce in their work and on their profitability.

The argument will critique theory of knowledge transfer as the movement of a body of knowledge from one area of a company to another, and the misuse of the work of Polanyi in understanding the hidden aspects of our knowledge crudely bunched together under the title ‘tacit’ knowledge and juxtaposed with explicit knowledge that is documented and shared within an organisation. Rather Coverdale’s (psychologist) idea that getting things done by developing skill as opposed to focusing on knowledge is the premise of the company’s successes. The anthropological notion of agency will be introduced as a useful concept in acknowledging the potential of individuals to unleash their knowledge, as will ideas from environmental psychology on the human ability to acclimate in new situations.

The case study presented here is from empirical ethnographic research within a company in the South West. The company is currently moving from a traditionally managed SME with a hierarchical structure, to a de-centred model for workplace where each individual within the company is responsible for what is essentially like their own mini company within the larger one. The company data (quantitative) from before these changes were introduced compared to the data now (on aspects such as Quality, Delivery and Profitability) tell a remarkable story about the effects of management and organisational structure. As the company continues to change and expand they are exploring what the most effective induction program might look like, and the results so far point to a counter-intuitive, hands-off approach to KM. They point to what is in fact the non-management of knowledge in the sense that it will not be prescribed or transferred form one person to another, but rather drawn out of the individual’s capacity to adjust to new environments.

Keywords: Knowledge management, critical management, innovation, KTP, individual agency
Leadership as Knowledge Mobilization: Building Coalitions for Evidence-Based Change

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Abstract: Knowledge is packaged in many different formats. It takes the form of academic disciplines, evidence derived from qualitative and quantitative research, personal perceptions, and individual beliefs, philosophies, and perspectives. Collectively these knowledge disciplines provide each individual with a unique ‘window’ on their world. Therefore, each individual who is a contributor to the creation of a social problem or issue, and consequently to its resolution, has a ‘knowledge set’ pertaining to that issue that is as unique as she is; and that is a product of her age, experience, learning, and context. However, many academics (experts in a particular discipline) often downplay and are dismissive of the many other knowledge disciplines that must be considered in problem definition, decision making and then implementation of social change. Leaders, however, cannot ignore the knowledge imperative. The resolution of most social problems demands that contributions of knowledge be made from many different academic disciplines, as well as other forms of knowledge such as beliefs, values and philosophies as understood by citizens and different professional and interest groups in society. It is the function of leaders to abduct knowledge: that is, to mobilize knowledge in all its forms and constructs to overcome and counteract the natural tendency of specialized knowledge to divide society, rather than unite it behind a common purpose. Effective leaders engage academics, professionals, and citizens in the identifying of social issues for resolution and then in the shaping and implementation of decisions for social change. They do so by gathering knowledge in its many diverse forms from the array of constituents pursuant to a particular issue or concern. Effective leaders are penultimate knowledge mobilizers: they gather knowledge of from all sources; interpret the meaning of that knowledge in terms of defining focus of social change; and then utilize techniques and approaches to engage all constituents in generating collective energy for change. This session presents outlines, models and tactics of leadership that mobilizes knowledge from many different fronts and that utilizes that knowledge to create collective, rather than divisive, action to resolve social issues.

Keywords: Leadership, knowledge coalitions evidence-based change

Knowledge Management as a Framework for Reflective Practice

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Abstract: Knowledge management has developed and evolved through a number of phases or iterations. In the third and most recent phase of the developing discourse of knowledge management there has been a shift to the human issues associated with knowledge management and a reduction in the focus on information technology (Lelic 2002; Snowden 2002a). Also in this phase there has been a realisation that the real value of knowledge comes by creating environments that enable people to create and share knowledge (Lelic 2002). Snowden (2002a) indicated that the change in this phase did not require an abandonment of much of the previous work on knowledge management but
rather an acknowledgement that much of the work had been focused on content and the management of knowledge as a thing and the focus needed to shift to managing knowledge as a flow.

For a manager, putting human issues at the forefront of their practice can be problematic because of a common juxtaposition of the terms information and knowledge. This juxtaposition can lead to the false set of assumptions that knowledge is a commodity which is not only transferable but easily transferable.

This paper suggests a model that highlights the human relationship between the practice of the individual manager and the management of knowledge creation within the people in the organisation. The model highlights that a manager’s knowledge influencing practices are those practices that support the provision of opportunities for information sharing and the creation of knowledge with the specific intent of applying that knowledge in an organisational context. The model addresses a number of propositions related to the ‘how’ of a manager’s professional practice and its influence on the creation and management of knowledge and provides a framework for a manager to critique their professional practice.

**Keywords:** Knowledge management, knowledge creation, reflective practice, psycho-social filters

**Linking Web Technologies with Customer Response in the Spanish Telecommunications Industry**

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**Abstract:** Knowledge codification involves converting knowledge into machine-readable forms and storing them for future use. It has been recognized that web technologies are the main infrastructure supporting knowledge codifying and collaboration among employees, customers and/or suppliers. Through the deployment of the internet, groupware and collective systems, organizations can have the means to generate ongoing improvements in accuracy and timeliness to meet dynamic customer demands and sustain their competitive edges. This study examines crucial links between organizational learning and the existence and enhancement of web technologies and customer response in SMEs. A structural equation model, validated by the factor analysis of 130 SMEs in the Spanish telecommunications sector is presented.

Our findings suggest that although web technologies may help SMEs to direct their efforts to provide a better and competitive service to their customers though exploitation activities, too much emphasis on technology without incorporating the learning process could easily result in a failed system. Web technologies should be supportive of a learning process so that people can put forward ideas in a way that enables all team members to be included in the codification process. Therefore, the important managerial implications of this paper are that organizational learning provides the context for implementing web technologies which, in turn, are shown to have a significant impact on customer response.

Our findings also suggest that the provision of direct, persistent, and interactive technologies which enable customers to have low cost access to knowledge at low cost may have the effect of improving organizational performance. The internet, groupware and
collective systems are important means of communication for customers so managers should take steps to insure a prompt response to customers’ inquiries. In doing so, managers should provide adequate resources to optimize internal and external collaboration with customers.

Finally, our sample of Spanish SMEs in the telecommunications industry may not be representative of all SMEs. Therefore, our study provides an opportunity to review how other SME industry sectors in other countries are developing their technological capabilities and, in particular, how organizational learning could contribute to such development.

**Keywords**: Organizational learning, web technologies, customer response, SME

### The Influence of Network Structure on Trust: Addressing the Interconnectedness of Network Principles and Trust in Communities of Practice

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**Abstract**: In this paper we explore the emergence of trusting relationships within Communities of Practice. It has been argued that trust can be viewed as an organizing principle (McEvily, Perrone, and Zaheer, 2003). However, we focus on the view that trust is an essential pre-condition for the sharing of knowledge. The goal of the paper is to discuss possible connections between social networking principles, network structure, and trust within Communities of Practice.

In the paper we define and subsequently analyze the concept of trust and develop arguments relating to the existence and strength of trusting relationships within Communities of Practice. The theoretical arguments propose relationships between the characteristics of trusting relationships and two network characteristics: homophily and closure. The general research question that underpins this paper is:

To what extent do network principles determine the level of trust among members within a Community of Practice?

It is important to note that in our analysis we focus on a specific type of social network which has been termed a Community of Practice. Communities of Practice have been argued to be critical elements in the creation, refinement and sharing of knowledge (Dugid, 2005; Wenger, 1998; Wenger, McDermott, and Snyder, 2002).

**Keywords**: communities of practice, knowledge sharing, trust, network structure
Simplifying knowledge management for SME’s in Hungary

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Abstract: The current, well-known, IT based knowledge management systems are fulfilling the requirements of big enterprises more appropriately than SMEs. They provide numerous solutions for collecting, flowing, codifying, storing, sharing and measuring information through the organization. But the importance of knowledge management for SMEs is increasing. To keep themselves on the path of growing, SMEs have to manage and expand their knowledge capital. This need is even stronger in knowledge based industries and e-businesses.

In the Southern European region these small and medium sized companies are often suffering from the lack of capital. The difficulties of being small often means that they can not afford buying huge IT-systems or software, and usually they do not really need all the functions that tools offer. The needs of SMEs are different.

In our paper we discuss the main requirements of the SMEs’ knowledge management systems. We present case studies describing simple knowledge management techniques, applied by SMEs. The case studies prove that when implementing knowledge management creativity is more important than capital. As we believe that KM is a essential supporting tool, we focus on an integrated view of KM, that merges KM with the main functions, -planning, leading, controlling- of management.

A local start-up financial consultant company uses a free web based tool for codifying the knowledge of the on-site consultants. Thus they are able to follow the efforts employees make, to codify the knowledge and information of the consulting process and measure the results of the projects. It is not only a KM system but also a monitoring and controlling tool. On the other hand we focus on the non-knowledge based industry. A unique software development at a small food delivery company enhanced the planning of the start-up, the codification of the internal and external information and the marketing efforts. It was started as a project management system, but through the codification and storing modules it soon became a common knowledge base of the company. And the whole price of the development was 200 Euros.

Keywords: SME’s KM system, requirements, case studies, integrated KM view

Using Measurement as an Enabler for the Implementation of Knowledge Management and Learning Processes

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Abstract: Knowledge Management and Learning concepts are complex and difficult to express in common terms and as a result their implementation in practice is highly problematic. The literature shows that many of the barriers to success are common across both knowledge management and learning. This is where management need to be convinced of the real worth of what are perceived by many in industry as abstract theoretical concepts. Demonstration of identifiable benefits, both quantitative and qualitative, is considered a prerequisite to obtain a viable mandate for change. This paper
reports on research which examines the measurement of knowledge management and learning as part of a longitudinal case study. The research is based in a rapidly growing knowledge intensive organisation which currently has an incremental approach to knowledge management and learning. Several initiatives exist which this research is drawing together in terms of benefits measurement. A common approach to measurement was adopted that did not differentiate between Knowledge Management and Learning. This simplifies the explanation of the concepts being presented to the actors involved. The various approaches to empirical measurement being developed are being tested through a series of pilot studies. These include knowledge based team learning and through lifecycle project learning. The research differs from many Intellectual Capital methods by taking a simple, highly pragmatic approach based on empirical measurement at the individual project level. The research reveals the types of measurement activities which can enable knowledge management and learning processes to be implemented. These can be used to capture and demonstrate the benefits of implementing KM and Learning tools and techniques into an organisation. Further areas of research planned include the examination of the use of a competency based approach to measuring improvements in the knowledge and learning of individuals, which can be aggregated to assess improvements across businesses as a whole.

**Keywords:** Intellectual capital, knowledge management, learning, measurement, case study

**“Knowledge Management Profile” Maturity Model**

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**Abstract:** This article is devoted to the formulation of a new knowledge management maturity model, which is believed to be of vital importance in the quest of the successful knowledge management practice. The main objective of our research is to develop a practically applicable and, at the same time, theoretically and methodologically founded approach that contributes to the exploration and realisation of knowledge management practice. The authors have undertaken an empirical survey in Hungary, which has investigated the characteristic features of knowledge management in small-, middle- and large sized enterprises and institutions applying quantitative methods. Based on this survey’s results the authors use principal factor analysis to identify determinant factors of knowledge management practice. By indicating the factor values in a net chart, the authors form a new, insightful continuous maturity model, named “Knowledge Management Profile”. The model names area(s) to be identified with the help of the knowledge management factors, within which areas the given organization can develop its knowledge management practice. For knowledge-intensive organizations, it is important to carry out an objective assessment of their current position in the area of knowledge management activities and processes. Uncertainty presents a barrier to the introduction of suitable activities for improving knowledge management. The authors believe that the results of the research will be significant to practice and will provide substantial support for leaders and managers. To ensure success and long-term existence of any organizations effective application of organizational knowledge and knowledge management practice is of critical importance. Besides simply assessing the benefits inherent in knowledge management, the organizations must learn to recognize and manage the different areas of their knowledge management practice. The authors are aware of the limitations of this research, as only 130 Hungarian organizations have taken part in the questionnaire
Collaborative Development of Knowledge Representations – A Novel Approach to Knowledge Elicitation and Transfer

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Abstract: Knowledge Management (KM) initiatives are driven by the need to preserve and share knowledge, in particular tacit knowledge, that experts have built up in the course of doing their jobs. Such initiatives require key experts to be identified and their knowledge elicited. However, knowledge elicitation generally runs into a number of communication and motivational problems. These are well known in domains such as expert systems but it is only more recently that KM practitioners have become aware of them. Standard KM approaches separate the elicitation and, possibly, encoding of knowledge from its subsequent sharing.

This paper outlines an approach where elicitation and transfer, and possibly also creation, are carried out in one process. This involves identifying key experts and stakeholders. These two groups then work together to develop a representation of the experts' domain knowledge. The role of the KM specialist thus becomes one of facilitation rather than elicitation.

This approach has a number of advantages. It is more likely to engage the interest of experts and so avoid some of the motivational problems that are commonly encountered in knowledge elicitation. It does not rely on knowledge management specialists who will not share the experts' language, to capture and record their expertise. In particular the approach helps overcome the perceptual biases of domain experts. It is well known that perception is often selective and that judgements can be anchored on false premises. Experts are not immune from these biases but they are more likely to be eliminated as a result of the critical dialogue that occurs between experts and stakeholders using our approach.

Our approach has been developed in the course of an action research project with a major engineering company. Staff who worked on a help desk had particular expertise which was of interest to other departments, such as design and production. The research data gathered was necessarily qualitative since the focus of concern was on the richness of transfer achieved. Early results suggest that communication or motivation problems encountered by conventional approaches are avoided and that a richer transfer of knowledge results. In particular it helps to identify and capture relevant tacit knowledge. The resulting representation may also form the starting point for a knowledge base which will be available to a wider community.

Keywords: Knowledge elicitation, knowledge creation, knowledge sharing, knowledge transfer, action research
An Emerging Grounded Theory of Knowledge Management in the Leading Irish Construction Organisations

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Abstract: The need for a more formal approach to managing knowledge in construction is well recognised by both academia and industry. Despite this, a gap exists between the theory and practice of knowledge management requiring further development and testing of models with industry. The study of knowledge within an organisational setting is complex and fraught with many difficulties requiring careful consideration of ontological and epistemological issues. The grounded theory methodology has become popular in conducting management research, although its integrity has been questioned due to divisions between its originators and loose adoption by some researchers. Therefore, novice researchers need to clearly state the grounded theory school to which they subscribe, and remain true to the procedures throughout. Using Strauss and Corbin's version of grounded theory, this paper presents emerging categories from interviews with ten senior managers from the leading Irish construction organisations. This forms the first phase of a doctoral study which aims to develop a knowledge management model for these organisations. Initial findings suggest that the need for knowledge management is well recognised by industry although uncertainty exists about how to implement such an initiative. Some of the emerging categories include: continuing professional development, supportive learning environment, other organisational initiatives and the realities of the business. While this research is very much a work in progress, the rationale for selecting grounded theory and the challenges faced in using such an approach will be reflected on from the perspective of a novice researcher. Consideration will be given to the practical application of grounded theory such as selection of participants, data collection, coding, memoing and the use of specialist software. The next phase of the research shall also be discussed with reference to theoretical sampling and the further development of a model of knowledge management.

Keywords: Construction organisations, constructivism, grounded theory, Ireland, research methodology

Leveraging Personal Information in Enterprise Environments – Problem Framework and Solution Outline using the Nepomuk Social Semantic Desktop

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Abstract: Today's knowledge workers (KWers) face information and task overload. To cope with this situation, the Personal Information Management (PIM) research domain has developed approaches that help KWers to organize their personal information like, e.g., email and task management. The rise of semantic desktop technologies, e.g., as developed in the Nepomuk (The Nepomuk project builds the Social Semantic Desktop: http://nepomuk.semanticdesktop.org) project, enables the KWer to organize personal knowledge in a structured, formalized way and to keep this knowledge independent of applications in a consolidated semantic knowledge layer. However, a major part of a KWer's daily work takes part in the context of a group or even an organization like an enterprise. There, organizational knowledge management (KM) approaches deal with
managing the corresponding information, e.g., a knowledge base with experts in an enterprise. Taking advantage of the KWer’s modeled personal knowledge on the semantic desktop, new opportunities arise to leverage existing organizational information for a KWer’s PIM and thus to the KWer’s benefit and vice versa to leverage the KWer’s personal information for the organization. In this paper, we present a framework structuring the problems into distinct domains. For each of the identified problem domains, we detail how a KWer’s PIM applications as well as enterprise applications can benefit and what technology foundation needs to be put in place to realize this. For example, by interconnecting the KWer’s personal information with available organizational information resources, the KWer can manage personal information from an organizational perspective leading to more efficient work in the organizational environment. A case study shows a concrete solution for one of the problem domains. We conclude this paper by a discussion, a review of related work and an outlook to future work.

Keywords: Knowledge Work, Personal Information Management, Organizational Knowledge Management, Semantic Desktop, Task Management

How KM 2.0 Supports Remote Cross-Cultural Learning Communities

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Abstract: This paper describes how a combination of face-to-face and distance work can be supported by a social computing environment in a remote, multicultural and multidisciplinary community. We focused on the project-based learning approach facilitated by web 2.0 solutions. Collaboration with colleagues in virtual teams is facilitated by the use of traditional and new technologies: e-mail, chat, blogs, Wikis, and VoIP. This paper attempts to answer this question: how can KM 2.0 systems assist in the educational process of an international, multidisciplinary, dispersed learning community?

To address this, we have designed a project-based learning approach supported by an integrated Social Computing Environment.

This experiment involves a community of 40 learners from Morocco, Tunisia, Egypt and Jordan involved in the IMeBM Master’s Degree Program. The learners were physically located in both Italy and in their home countries throughout the program’s classroom, project and internship phases.

This study suggests that KM 2.0 tools can facilitate remote cross-cultural education, collaboration and knowledge sharing between educational stakeholders. The use of KM 2.0 technologies increases and speeds up the acquisition of learners’ competencies and skills and allows supervisors to monitor the knowledge acquisition and knowledge sharing processes, thus improving collaborative learning and groups’ communication within the Master’s extended community.

Keywords: Web 2.0 applications, virtual collaboration, dispersed team, learning community, project-based learning approach, social computing environment
Development and Application of a Factor Framework to Diagnose Possible Failure of Communities of Practice

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Abstract: Well implemented knowledge management solutions can provide a competitive advantage for organizations. One way to improve knowledge sharing is by deploying a Community of Practice (CoP). The strength of this concept is that it breaks through traditional hierarchal barriers that usually exist within organizations. People share knowledge with others that are confronted with the same practices, regardless of location, department, or even organization. It is widely agreed upon that a successful CoP implementation can lead to significant increases in business performance. The context in which a CoP exists can influence such a successful outcome. However, a clear overview of factors that make up this context seems to be lacking in literature. In this research, a new framework was developed that lists context factors that influence CoP success. A literature study was undertaken using both knowledge management and CoP related literature. A number of 11 CoP context factors were systematically collected and categorized in three groups: people, organization and system. The “people” context describes important factors related to the community members. It typically concerns more socially oriented factors. The “organization” context shows factors that are associated with the company in which the community exists. This involves factors related to how management should be cultivating the CoP rather than overmanaging it. The “systems” context lists factors that are related to the media and systems that through which knowledge sharing in the community occurs. Each factor is accompanied by a number of questions, which can be used in semi structured interviews to make an assessment of the current situation. It can help practitioners to pinpoint problems, which allows for improvements to be made. This in turn can potentially increase CoP success. The validity of the framework was tested in a single case study, which also demonstrated the usefulness of the framework in practice.

Keywords: Knowledge management, community of practice, context factors, CoP implementation

Trial Application of the Schwartz Value Survey on Personal Knowledge Development through E-Learning

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Abstract: Learners’ individual-level values and cross-cultural differences in an e-learning study cohort arguably influence knowledge development and learning. Therefore, it is suggested that it is essential to examine both values at an individual level and potential cross-cultural differences and their relation to knowledge development and learning processes and outcomes in e-learning.

This paper presents and discusses the results of an exploratory pilot study in the context of doctoral research on knowledge development in e-learning environments. The focus is on how the e-learners themselves experience the learning processes in e-learning environments, such as working through texts and audiovisual materials, communicating in asynchronous discussion forums, and how this impacts their knowledge development, i.e.
the learning outcomes. Learners from two different e-learning courses took part in asynchronous discussions held within their respective e-learning environment. In addition to that, they completed Schwartz' Portrait Values Questionnaire (PVQ), which measures the rankings of the ten individual-level values of the Schwartz Value Survey (SVS).

The contributions in the two asynchronous discussion forums were then analysed with the assistance of the computer-assisted qualitative data analysis software NVivo. Clusters of similar responses were created and then correlated to the results of the ten individual-level values of the SVS. For instance, interactivity, a high degree of interaction between peers, is mentioned more frequently by students who score relatively high on the value of ‘stimulation’ – which can be regarded as involving variety and novelty in an e-learning course – than by those who score relatively low on this value. On the other hand, most students, regardless of their respective ranking on values, mention flexibility concerning time and place as one of the prime advantages of e-learning as opposed to learning in a face-to-face setting. This might suggest that some perceptions of learning processes in e-learning are shaped by individual-level values, whereas other perceptions are rather due to the e-learning environment itself or other factors. Further correlations are reported in this paper.

Furthermore, the results are also linked to Nonaka’s socialisation, externalisation, combination and internalisation (SECI) model. SECI forms the framework of the interaction between tacit and explicit knowledge and is used in this paper to discuss the impact of values and culture on personal knowledge development.

**Keywords**: e-Learning, culture, values, SECI, knowledge development

**Post-M&A Knowledge Integration Challenges, Solutions and Learnings**

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**Abstract**: Worldwide, more than 40,000 mergers and acquisitions (M&A) worth almost US$5 trillion now happen annually, but over 50% of them fail to generate shareholder value! Studies have shown that chances of success improve significantly if a post-M&A integration exercise is well orchestrated. As M&A deals are being increasingly undertaken to quickly acquire new knowledge and skills which are difficult to develop organically, successful post-M&A knowledge integration becomes crucial to creating shareholder value. As there isn’t much literature available on how to achieve successful knowledge integration, this research paper focuses on this niche area within the overall post-M&A integration umbrella.

This paper showcases the learnings from knowledge integration case studies of two acquisitions at Wipro Technologies (Wipro), India. These case studies are part of an ongoing Ph.D. research on post-M&A knowledge integration being carried out by the lead author of this paper. Wipro’s post-M&A knowledge integration practices merited a detailed study as Wipro has been an active player in the M&A arena and has made 10+ acquisitions over the past 6 years; and Wipro has been a recipient of the Global, Asian and Indian MAKE (most admired knowledge enterprises) awards.
The first knowledge integration case study covered in this research paper involves a synergistic acquisition by Wipro within one of its existing I.T. services domains, albeit in a foreign country. The second knowledge integration case study involves an acquisition made by Wipro in order to foray into a new business area, where the acquired company’s employee base was largely India-centric. Despite both case studies involving acquisitions by Wipro, due to the inherent differences between the deals, the post–M&A knowledge integration styles have been quite different. The knowledge integration challenges faced and solutions developed too have differed. Yet, some common learnings have emerged on comparing the two case studies. Hence, it is envisioned that these learnings presented in this paper could be leveraged as “good practices” by others foraying into the M&A arena.

**Keywords:** Knowledge management, knowledge acquisition, knowledge integration, post-merger integration, PMI, KM

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**Understanding the Role of Knowledge Gatekeepers in Knowledge Identification, Translation and Transfer Process: Some Empirical Evidences**  
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**Abstract:** This paper discusses the role of knowledge gatekeepers in the manufacturing, financial and R&D firms. 150 questionnaires were used to collect empirical data and further 25 interviews were conducted within ten organizations plus fifteen standing and recognised experts in their own fields, and government officials. In an examination of the role of gatekeeper of knowledge in knowledge transfer processes the study has found that knowledge gatekeeper maybe individual, a firm, a department within an organization. Furthermore, individuals working as knowledge gatekeepers require adapting to the recipient culture and knowledge sharing practice if they are to effect change. Finally, there is no evidence to support the claim that firms acting as knowledge gatekeepers may develop asymmetries and destructive mechanisms to prevent others in the industry sector or that they would necessarily incorporate innovative SMEs in their network.

**Keywords:** Knowledge gatekeeper, leading firms, knowledge creation, knowledge sharing, culture. Rwanda, Uganda

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**Impact of Knowledge Network Structure on Group Performance of Knowledge Workers in a Product Software Company**  
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**Abstract:** It is a generally accepted idea today that knowledge networks play a crucial role in organizations. Knowledge networks refer to knowledge sharing and learning as a result of social interactions between employees in an organization. Being aware of the importance of these knowledge networks, it is of interest to any organization to understand how the performance of these networks is influenced by their design. Based on literature we defined 7 hypotheses concerning how the structure of knowledge networks contributes
to the performance of these networks. For testing our hypotheses we collected network data from 18 knowledge networks within the product line of an international product software company developing ERP software. Data was collected by asking employees about their learning relations and the frequency of knowledge transfer (independent variable). Furthermore, we asked all respondents about the extent to which they feel that the knowledge they receive influences their perceived job performance, which we converted into a group performance measure to measure the performance on network level (dependent variable). To test our hypotheses we applied correlation analysis, which showed that only part of our hypotheses is supported by the data. We found support for a statistically significant relation with group performance for efficiency and transitivity, and marginal support for density and connectedness. From this we derived preliminary guidelines for managers to help them get results from their knowledge networks.

**Keywords:** Knowledge network, social network analysis, learning network, communities of practice, group performance

### Assuring Competence at Team and Enterprise Level

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**Abstract:** In an earlier paper, we developed a critique of the conventional wisdom about competence and developed and offered a systematic and systemic framework for understanding, development, assessment, management and progression of competence as a human focused quality (Hessami & Moore, 2007). This paper develops the general systems framework further to explore the essential attributes of competence beyond the individual expert. In this perspective, we have developed the framework to address the issues of team as well as a glance at enterprise competence which by necessity includes factors and constituents for success beyond that applicable to a so called competent knowledge worker. We illustrate a case study demonstrating how to pragmatically apply the framework in the course of assisting the experts and their managers to benchmark, assess, develop and assure competence employing public domain occupational standards

**Keywords:** Competence assessment, competence management, competence benchmarking, team competence, enterprise competence

### Using a Fuzzy Group Decision Approach-Knowledge Management Adoption

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**Abstract:** This paper proposes a Fuzzy Group Decision Approach for making strategic decisions about knowledge management adoption. In the global economy, knowledge has become a key asset in organizations; thus, Knowledge Management (KM) has emerged as a major issue that managers must deal with. However, implementing KM is becoming more complicated. Practitioners must assess complex and confusing situations, initiate KM, identify the causal relationships between problems, make appropriate decisions, and
guarantee that the recommended action plan will be effective. Therefore, effective group decision-making is essential.

A 27-item list that constituted a complete domain for OKMR (Organizational Knowledge Management Readiness) measurement was obtained, which are used to construct the criteria of knowledge management adoption.

The DEMATEL (Decision MAking Trial and Evaluation Laboratory) method gathers collective knowledge to capture the causal relationships between strategic criteria. This paper applies the DEMATEL method in the strategic planning of knowledge management to help managers address the above situations and related questions.

**Keywords:** Knowledge Management, knowledge management adoption, Group Decision Approach, DEMATEL

### Implementing Social Networking Media and Web 2.0 in Multinationals: Implications for Knowledge Management

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**Abstract:** This paper reports the findings from an exploratory study investigating how MNCs are leveraging Web 2.0 applications to improve knowledge sharing and creation within and across their boundaries. As Web 2.0 and social networking are typically of a grassroots nature, the implementation of Web 2.0 applications may result in tensions in more traditional hierarchical organizations. For example, individuals may self-organize to participate in mass collaboration across temporal and spatial boundaries, thus facilitating the leakage of ‘private’ organizational knowledge across the organization’s boundaries, which may be contrary to more traditional organizational forms and management norms.

To guide our investigation, we categorize multinationals into four quadrants according to their maturity of how they are utilizing Web 2.0 and social networking either within their intra-organizational boundaries or in an extended inter-organizational context. Interestingly, all the multinationals under investigation demonstrate curiosity towards experimenting with new social networking tools through pilot studies or other initiatives of different scales. Examples are 1) utilizing MS SharePoint platforms internally to take advantage of collaboration and knowledge sharing through wikis, blogs, and social tagging, 2) using social networking sites for recruiting purposes that may cause considerable savings, 3) using Facebook for connecting geographically dispersed employees, and 4) utilizing virtual worlds such as Second Life to support collaboration as well as co-creation and innovation across academic and public researcher groups through facilitating a rich collaborative space.

The study identified challenges related to the implementation of Web 2.0 in multinationals including poor top management support and understanding of Web 2.0’s benefits, potential for knowledge leakage, social overload, attracting individuals to participate in networking activities, and the ability to measure the value of implementing Web 2.0. Finally, we discuss the potential and the role of Web 2.0 and social networking in future knowledge management systems of multinational firms. When incorporated in an organization’s routines, Web 2.0 applications may enable multinationals to more fully leverage the knowledge sharing and creation potential of its employees across distributed locations.
than traditional knowledge management has done in the past. The challenge is to manage the increasing fluidity between the boundaries of organizational and individual knowledge in addition to between the boundaries of organizational and individual activities. Furthermore, management must increasingly focus on communicating to individuals about the multinational’s competitive landscape, such as which knowledge is required for sustainable competitive advantage now and in the future. Since few studies so far have focused on the role of Web 2.0 in knowledge management, we suggest that future research should pay attention to how multinationals proceed in their efforts of implementing new social networking tools and how this may influence their existing knowledge management strategy and practices.

Keywords: Web 2.0, social networking, knowledge, networking, mass collaboration, virtual worlds

Complexity-Based Interpretation of Integrating Effectiveness and Innovativeness in the Preparation of Municipal Decision-Making

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Abstract: The focus of this paper is on the preparation of municipal decision-making. This paper finds that how matters become subjects of decision-making is at least as important part of municipal decision-making as how they are formally decided on. Both the progression of the process and the actual content of the decisions are largely resolved in preparation. The complex and rapidly changing operational environment is imposing special requirements, which are driving the municipal sector implementing new kinds of patterns. The paper deems it important that, alongside effective issues, municipal administration also strives to transcend conventional truths, search for new ideas from various non-interrelated sources, and create new possibilities from them. The paper engages with the knowledge management research tradition because the success of municipality is considered to be dependent on how efficiently the municipality can balance knowledge exploitation with knowledge exploration. Rather than focusing on administrative structures, the paper concentrates on the official and unofficial interaction processes within the preparation system, and between the preparation system and its environment. The paper finds that the interaction processes have hidden potential, which can be translated into a resource for balancing effectiveness and innovativeness. The resulting complexity-based framework, which can be seen as the main contribution of this paper, shows that paying attention to the interrelationships between the various actors and invisible dynamics of the preparation system provides a new perspective on the challenges facing municipal preparatory work. The complexity-based framework can be seen as an ‘enabling structure’ that facilitates the running of the preparation system and simultaneously ensures the co-evolution between the preparation system and the surrounding environment. This framework consists of five dimensions, which are: (i) interaction and feedback, (ii) trust, (iii) internal mechanisms, (iv) diversity, and (v) sense of timing and co-evolution. The complexity-based framework helps to understand how municipal communities can benefit from their internal and external knowledge reserves and adapt to changes in the operating environment.

Keywords: Preparation, municipality, knowledge management, complexity theory
Does Knowledge Sharing and Withholding of Information in Organizational Committees Affect Quality of Group Decision Making?

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Abstract: In today’s knowledge economy, there is an emphasis on group performance, such as in organizations’ committees, yet this performance is prone to productivity deficits. Like many other groups, organizational committees are prone to irrational decision-making in the form of groupthink and group polarization. We review evidence that groupthink involves avoidance of contradictory information, biased information sharing, self-censorship, reducing information on the outgroup and poor information pooling. For example, committee members’ conformity to the standards and expectations of an organization can lead them to withhold information that contradicts the organization’s “traditional” viewpoint. In other instances of groupthink, committee members may withhold information from their seniors in order to shield them from opposing views. Committee members undergoing groupthink may also display bias in their information search, such that they seek only that information which supports the committee’s prevailing opinion. We also review evidence showing that highly cohesive groups, those isolated from outside influence, and those with forthright leadership, are most at risk of groupthink. Improving the structure of a committee and having a leadership style that is process-directive, rather than outcome-directive, can reduce groupthink. We also review evidence on group polarization, which involves a shift by a group to an extremely risky or an extremely conservative viewpoint as a result of members influencing each other. We also discuss the impact of novel information on group polarization. We provide an analysis of the impact of faulty decision-making on the downfall of the bank Northern Rock. We consider the possible lack of objectivity in elements of the bank’s decision-making. The fact that Northern Rock did not receive a sufficient amount of outside regulation may have exacerbated groupthink. We discuss the likely role of risky shift in the bank’s attitude to risk and also consider the possible impact of forthright leadership on groupthink within Northern Rock. Groupthink and group polarization pose a danger to organizations that are required to continuously create, update and utilise knowledge in their decision-making, and to implement change in order to compete in shifting markets.

Keywords: Information sharing, organization committees, groupthink, group polarization, knowledge economy, decision-making
Knowledge Management in Non-Knowledge-Intensive Organizations: Case Study of Two Plywood Factories

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Abstract: The role of knowledge as the key productive factor has become one of the truisms of current managerial discourse. The literature contains many normative but rather abstract prescriptions for knowledge management (KM) as well as anecdotal pieces of evidence from world-class leading firms. In spite of this, there are relatively few organizations that are indeed practicing systematic and conscious knowledge management and the great majority of companies rather reside on the start-up level of the KM maturity ladder. Furthermore, the majority of empirical knowledge management literature examines KM in so-called knowledge-intensive or knowledge-based firms. However, the importance of leveraging employee skills and knowledge has become a topical issue for all types of organizations – including those that mainly deal with tangible resources.

In this paper we utilize the case study approach to examine knowledge management practices in two plywood factories. We argue that even though these factories cannot by any means be described as knowledge-based in the sense that the main part of their value creation would happen through intangible assets, KM still is an important issue for them, and can at best yield important productivity improvements. Neither of the firms has a consciously created KM strategy, but our findings demonstrate that there is much management of knowledge going on in these organizations, regardless of whether it is labelled as such by the actors themselves.

The current state of knowledge management was assessed with a standardized survey method, which addresses various dimensions of knowledge management. After the survey diagnosis, focus group interviews were conducted to examine KM practices more in-depth and to generate and define development activities for the weaknesses identified through the survey.

The paper contributes to the existing literature by providing an account of how KM activities can be assessed and developed in non-knowledge-intensive firms with little awareness of KM discourse. It also presents a structured method for evaluating companies’ KM practices and for diagnosing the main weaknesses that should be developed in order to achieve KM excellence. As a practical deliverable, the paper aims to be helpful for general managers hoping to develop their own organizations.

Keywords: Knowledge management, capabilities, assessment, survey, case study
Knowledge Transfer Through Collaboration and Participation – a Case Study on the Initial Steps From a Change Project in one Department to Full Enterprise Implementation

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Abstract: Our experiences are that there is difficulties associated with taking knowledge and success from a pilot project and implement it into a larger system (as an enterprise). The reasons for why this is difficult are many, but a more important question is the complementary: Why do we sometime have successful knowledge transfer? We argue for the importance of collaboration, participation and broad information as three key knowledge transfer mechanisms. In the paper we identify events in the change project that set off changes in the enterprise as whole, including the change project itself, and discuss these changes and interrelations in a systems thinking perspective. We explore the initial steps from a change project in one department, to what can become a full enterprise implementation. The work is based on a case study and link events and patterns (constructed) in the case to our exploration of knowledge transfer. We also think it is interesting to note that the knowledge transfer to the rest of the enterprise did take place as a spin-off and not as an explicit part of the pilot project, “It just happened!”

A LEAN production project in packaging industry during 2007 and 2008 provides an example of a change project in one department becoming, what could be, the start of a knowledge transfer project in the whole enterprise. Using this case, where system thinking is applied, we address one key question regarding knowledge transfer in the organization: How and what patterns describe a successful knowledge transfer? The LEAN project that form the basis of this paper, started up as part of the Value Creation 2010 (VC2010). VC2010 is a national research program in co-operation between the Confederation of Norwegian Business and Industry, The Norwegian Confederation of Trade Unions, Innovation Norway and The Norwegian Research Council. It was initiated in 2001 and has since autumn 2007 continued in the Measures on regional R&D and innovation research program. The main objective is to encourage and contribute to organizational development and innovation, including enterprise development. New forms of co-operation between the industrial (social) partners and other actors in the value creation processes are central. This is done by active use of researchers as development partners.

Keywords: Systems thinking, knowledge transfer, change process, collaboration, participation
How to Improve Your Knowledge Intensive Organisation: Implementing a Knowledge Management Scan Within Public and Private Sector Organisations

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Abstract: The Centre of Research in Knowledge Organisations and Knowledge Management of Zuyd University has developed a knowledge management scan. The scan initiates from two models. The first model is based on the Value Based Knowledge Management approach (Tissen, Andriessen & Lekanne Deprez, 1998) and includes 6 basic abilities of a knowledge-intensive organisation that will enable the organisation to operate successfully in a knowledge based economy (.The second model, developed by Wierdsma and Swieringa (2002), categorises organisations according to their level of learning that is to say, how it develops a specific learning ability. Both models are briefly reviewed within this paper. This knowledge management scan is a tool that enables an organisation to assess the development of its six basic abilities. Once the organisation has a clear insight into its own abilities, it will be able to strengthen its overall learning ability and improve the organisations’ competitive position.

Additionally we take a close look at our research approach for developing and implementing the knowledge management scan. The scan encompasses 15 statements per ability (90 statements in total). The complete scan will be assessed on a five-point scale by a representative group of selected employees and managers of an organization, supervised by a researcher/consultant.

During the analysis of the results and the presentation of recommendations, specific attention is paid to those statements that achieve high and low scores respectively (invitation to implement improvement actions) and statements that have a relatively high spread across a broad range (differences of opinion or the statement is open to different interpretations).

In particular we have examined how the knowledge management scan was put into practice in one of the departments of Zuyd University. After a short summary of the organisation's initial situation, we discuss subsequent steps taken during the assessment, analysis and the advisory process. This paragraph is followed by a concise summary of the results generated by the scan. Finally we offer the recommendations and subsequent steps to be taken to implement these advices in the near future.

Keywords: Knowledge management scan, assessment, learning organisation
Topic map and Ontological Support for Knowledge Management in the Enterprise

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Abstract: The paper’s aim is to examine what role modern IT tools play in the process of knowledge sharing inside the enterprise. Our hypothesis is that semantic data models and semantic web applications foster knowledge sharing through the codification of tacit knowledge. We propose a topic map based technology for the management of unstructured information. Topic map technology enables the visualization of concepts through associations similar to human thinking and unlike the traditional hierarchical approach. This technology requires the clear definition of all concepts (topics) to ensure that all co-workers share a common meaning of each topic. The technology provides the possibility to attach documents to all occurrences of a topic.

Keywords: knowledge management, knowledge sharing, managerial notes, topic map, semantic web, ontology

Supporting Patent Retrieval in the Context of Innovation-Processes by Means of Information Visualisation

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Abstract: Innovations are an essential factor of competition for manufacturing companies in technical industries. Patent information plays an important role for innovation-processes and innovators in the knowledge management. The combination of cross-organisational spread information and resources from patent databases and digital libraries is necessary in order to gain profit for innovation experts. The central challenge is to overcome the current information deficit and to fulfil the information need of the experts in the innovation-process.

Classical information retrieval (IR) research has been dominated by the system-oriented view in the past. A user formulates a query and then evaluates the elements found through the query according to their relevance. But this rather static setting does not always correspond to the communication and interaction needs of humans. IR systems should explicitly support also the cognitive abilities of the users in order to realize a dynamic dialogue between the user and the system. An information dialogue which does not only support an individual query but also the complete search process is necessary. Only in this way is it possible to satisfy an information need and support the innovation-process. In this paper we present in detail three innovation scenarios to highlight the challenges of advanced information systems, query reusability and result visualisation. By defining the essential activities and conditions of a search task, it is possible to develop user interfaces which offer assistance in the form of a connection of dialogues. From this we derive the elementary information sets and activities in the next step. An example illustrates the applicability and utility of the innovation scenarios described and shows how the activities satisfy the user’s information dialogue context. As part of the example we apply a cognitive
walkthrough on a patent database. Aiming for an implementation of Daffodil-System we will benefit from these results.

Keywords: Information retrieval, innovation-process, interactive systems, patent retrieval, result visualisation, information visualisation

Quantification of the Talent in Management Posts by Applying the M6PROK© Software. An Application in Production Plants of the Automotive Sector

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Abstract: For some time, knowledge management has become the basis of research carried out in centennial business models such as the automotive industry. Specifically, the research work undertaken in this paper is an example of the benefits of its applicability in a Just-in-Time (JIT) supplier logistics model that presently operates in Europe. The analysis of the knowledge acquired, transferred and upgraded in the management posts of these plants is presently configured as an improvement measure in subassembly industry management. The exact assembly sequence of vehicles in a supply chain is a reflection of the interaction between the knowledge in management, logistics, quality and engineering posts. However, the fact that these four agents do not have or do not share certain knowledge at a certain moment can bring production orders to a standstill and cause enormous economic losses. Therefore, the objective of this paper is to quantify the talent (in terms of knowledge) of the four agents by means of a ratio that measures the level of profitability which returns to a JIT when the implicit knowledge of all four agents used in all the supply chain activities is managed correctly. To that end, a software called M6PROK© (Copyright number 00/2006/3558), which has been recently developed by this team, has been used in this production plant.

The M6PROK© software (Model of the Six Profitability Stages of Knowledge) determines the six possible labels of profitability that can accompany certain knowledge once it is identified. Its scientific basis is supplemented with a mathematical algorithm from the metaheuristics field known as Cooperative Maximum Likelihood Hebbian Learning. This software takes into account the database of the registered agents' knowledge according to four parameters (cost of knowledge, cost of no knowledge, knowledge status and relevance) together with an N-dimensional vector of entrance, an M-dimensional vector of exit and a success ratio shown as a percentage of good forecasts. The conclusions of this paper allow us to know whether it is suitable to transfer knowledge among the agents and to acquire new external knowledge. It is also possible to accurately point out which knowledge is fundamental, which incurs more expense than investment, which is strategic and which is critical. This novel approach means improvement that helps cut costs that poor knowledge management generates in some of the agents studied. Nowadays expired proposals are not required, rather worthy alternatives for an industrial environment to be considerably interested in making visible its more distinctive quality, that is, its development and expansion towards continuous improvement.

Keywords: Knowledge management software, model of the six profitability stages of knowledge (M6PROK©), metaheuristic algorithms, cost of knowledge, cost of no knowledge, automotive industries, just-in-time production plants
Evaluating the Factors of Knowledge Management Success
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Abstract: It is commonly accepted that knowledge management (KM) and knowledge transfer are critical success factors for competing enterprises. What is not yet known sufficiently is how to measure the status of KM in order to develop concrete and effective actions to improve KM and knowledge transfer. What is lacking is a methodological base to support the development of such diagnostic tools. This paper sets out to fill this gap. Firstly, an overview of the approaches applied and the empirical research undertaken so far in the evaluation of the results associated with, and achieved through, KM is provided. From this, a concrete instrument was developed for the use of success factor analysis in a stepwise, methodical manner. The results of a first, restricted, pilot trial showed that the transfer of the general success factor analysis technique to work in the specific context of KM is possible. The method used is proposed as a first step towards a diagnostic tool that allows a cost effective measurement of how well an enterprise is doing in its KM and knowledge transfer efforts. An outline of further work is provided.

Keywords: Knowledge transfer, success factors analysis, status diagnosis of KM and transfer

Integrating Artificial Intelligence into Organizational Intelligence
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Abstract: Organizational intelligence is the capability of an organization to create knowledge and to use it in order to strategically adapt to its environment. It is in a way similar to the individual IQ, generalized to an organizational level. In the past an organization was perceived as a collection of tasks, products, employees and processes. However, nowadays they are regarded as dynamic systems that are producing and managing knowledge with learning processes that include intuitive knowledge, computer-stored information and perceptions from the environment, all used to make correct decisions. These processes include employees interacting among themselves and with the information systems. Therefore, the intelligence of an organization is more than the aggregated intelligence of its members – it is an emergent property of the complex interactions of its subsystems and the way they are aggregated. Processes analyse related to organizational intelligence can be achieved by means of agent-based simulations. Organizational intelligence can be improved by extracting aggregated information about past experience which can be analysed and used in current situations. This helps organizations to understand past tendencies respectively outcomes and to anticipate future trends by applying previous patterns from organizational data.

Keywords: Organizational intelligence, intelligent agents, computational organization theory, knowledge management, data mining
Organizational Learning as a By Product of Justifications for Change

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Abstract: Literatures on knowledge management and learning organizations see organizational learning (OL) as an outcome of actively managed structures and processes that are aimed at the generation and dissemination of organizational knowledge. By choosing adequate structures and processes it is thought that individuals, groups and entire organizations can learn faster and better within a selected set of knowledge domains defined by knowledge managers. More naturalistic perspectives on OL portray learning in organizations as an inevitable result of working and – indeed – living within organizations. According to this perspective, learning is more appropriately seen as a by product of activities that are done for other purposes. For example, organizations change their structures in order to improve efficiency. Still organizations learn during this process, but the generation and dissemination of knowledge is not the main purpose. By combining the normative idea that organizational learning can be effectively managed with the naturalistic perspective that most of what happens in an organization creates arenas for learning, the following general question emerges: How do structures and processes that are chosen for other purposes, affect organizational learning? In this paper, the question is addressed in the context of organizational change. We develop and test a model that relates change management’s justifications for organizational change, to organizational learning. The main argument is as follows: By justifying change in specific ways, change managers instigate thought processes that generate new insights for change recipients (cognitive learning). Also, provision of justifications affects motivation, which in turn is hypothesized to affect the search for new and better solutions to relevant organizational problems during change (behavioral learning). The hypotheses are tested using a multi organization, multi change data set from a sample of Norwegian work organizations. Empirically, a distinction is made between two types of learning outcomes: Generative learning, i.e. the generation of truly new knowledge and Distributive learning, i.e. the dissemination of knowledge that was already present in the organization.

Keywords: Naturalistic learning, organizational change, justifications for change

Data Mining Tools and their Role in Knowledge Management

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Abstract: Knowledge Management (KM) as a field of study in the social technology space is driven both by the practical needs of organisations and interactions between related broad areas including cognitive sciences, information sciences, economics and management sciences (Suresh et al. 2006). Technologies play a key role in delivering and supporting KM services, and this paper will focus on knowledge discovery in relation to the process of knowledge creation in the industrial setting. As a subset of Knowledge Discovery in Databases (KDD), data mining has been defined as the "nontrivial extraction of implicit, previously unknown and potentially useful information from data". Two strands of KM are identifying existing knowledge and creating new knowledge — data mining offers organisations the facilities to discover, organise, check and analyse their body of
knowledge. Data Mining (DM) tools use data to build a model of the real world and the result of this modelling is a description of patterns and relationships in data, which can be used in pursuit of the primary data mining goals, i.e. prediction and description. Describing patterns and relationships in a complex dataset can provide the knowledge that guides future business actions. There are a range of data mining techniques for dealing with large-scale databases and sophisticated algorithms are incorporated into commercial software. This paper brings together some existing frameworks and schemes to present a set of criteria for DM tools with the aim of assisting industrial users and researchers in the selection process. PolyAnalyst from Megaputer Intelligence is used as a case study here to highlight the approach to evaluation of functionality and usability in the context of the particular business goal.

**Keywords:** KM Technology; KDD; Knowledge Creation; Data Mining; DM Tools Criteria; Case Study

**Trust and Risk as Critical Factors of Knowledge Sharing in Virtual Communities of Practice: A Conceptual View**

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**Abstract:** Both researchers and practitioners have in the past decade been keenly interested in factors that influence knowledge management practices such as knowledge sharing. Trust has been identified as a major influencing factor especially in virtual communities of practice where there is very little or no face to face contact. At the same time, risk is generally agreed to significantly play a dampening effect on the trust factor. However, research has not resolved the optimal balance of trust and risk when sharing knowledge in virtual communities of practice (VCoP). This is the challenge undertaken by this paper by using secondary study to propose a model that should guide organisations to gauge and predict the level of trust as it affects knowledge sharing in their virtual communities of practice. The model will use well-argued out risk factors as well as trust components such as integrity, expertise and benevolence which has been studied by researchers such as Usoro et al (2007). Both trust and risk levels change with time and experience and thus will be studied in the dynamic perspective. The model should also have policy implications on how to optimize knowledge sharing within the virtual communities of practice given the two conflicting dimensions – trust and risk. In order to answer these problems a mathematical model will be proposed. The model will simulate the behaviour of the participants of a typical VCoP, as well as their trust and risk associated with their actions within a given time scale.

**Keywords:** Knowledge sharing, trust, risk, virtual communities of practice, prisoner's dilemma
The Assessment of Human Capital Based on Competence Approach

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Abstract: Intellectual capital plays a crucial role in creating additional competitive advantages and in inducing adequate cash flows. The development of intellectual capital is closely connected with the education system. The analysis of intellectual capital creates some issues. One of them is the relationship between labor compensation and value creation in the process of production. This relates to human capital as a constituent part of intellectual capital. The efficiency of intellectual capital depends mainly on its accumulation and development. It can be fully realized in learning organizations. Organizational learning mostly focused on the development of employees’ competencies. In order to develop competencies to match the company’s strategy it is required to assess the levels of these competencies. This paper presents methods of integration of individual and corporate assessment of professional, business and psychological characteristics of competences based on the fuzzy set theory.

Keywords: Human capital, intellectual capital, learning organization, competencies approach, assessment, level of competencies

Dynamic Knowledge and Healthcare Knowledge Ecosystems

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Abstract: The concept of Knowledge Ecosystem (KE) is used to define a community of practice that builds knowledge in a bottom-up, networked and dynamic fashion. These features define a new kind of digital ecosystem that is domain specific and operate in an open (virtual or real) world. The openness is an ideal situation that needs to apply the unified standards, for instance the Semantic Web Standards and Rules and Web 3.0 that help the building, growth, sharing and forgetting of knowledge across the Knowledge Ecosystems.

What makes the KE different from the “classic” view upon the digital ecosystem is an active and dynamic process that involves:
the creation of knowledge;
the intentional elicitation of knowledge;
the ability of share knowledge across the entities; and
the possibility to depreciate and forget knowledge.

How does the dynamic nature of knowledge influence the nature of knowledge ecosystems? What are the general principles that can be applied to design the sound and enduring knowledge ecosystems? These are some of the questions will try to get answers in our paper work.

First of all, we will show that the dynamic evolution of knowledge and the dynamic character of the flows of knowledge are essential for the transition from digital ecosystems to knowledge ecosystems. Having a static collection of pieces of knowledge, processing
them and placing them in a digital ecosystem are not really enough for this one to becomes a knowledge ecosystem. Continuous knowledge creation is responsible for transforming the digital ecosystem in a knowledge one. The process of dynamic knowledge building occurs when internal (tacit) knowledge becomes external (explicit). The continuously feedbacks that operate between internal and external knowledge are producing new knowledge among entities and create the energy and permanent innovation that characterizes a knowledge ecosystem.

In the second part of the paper we’ve draw some general principles of accelerating the apparition of new knowledge ecosystems, while in the third section we define the main features of the knowledge healthcare ecosystem design for the home rehabilitation of people with motor disabilities. In order to do so, we are going to extract from these general principles the specific in-rules that make the agents involved in home health rehabilitation to act as a knowledge ecosystem. Alongside the theoretical approach of our paper (that refers to the principles’ establishing), this brings also the practical one. We conclude the paper work with some remarks on the KE’s role and importance in healthcare, and in particular in home rehabilitation field.

Keywords: Digital ecosystem, healthcare knowledge ecosystem, dynamic knowledge, flows of knowledge, home health rehabilitation

Intellectual Capital Management – A Certification Model

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Abstract: According to the new paradigm, intellectual capital has taken a leading role in companies, as it is through it that information can be changed into knowledge. Much research has been done on the subject indicating the need to adopt a more strategic posture, both medium and long term. It is necessary to increase the validation of the intellectual assets held by company employees and by those that directly affect the business, integrating them into knowledge, growth and creative processes. Further, empirical studies indicate that organizational innovation, considered as the capacity that organizations have to develop themselves in a balanced manner, is related to how the internal innovation of their intellectual capital is managed, providing goods and services able to satisfy the client. Therefore, in all organizational processes, it will be necessary to consider intellectual capital, promote thinking as an integral part of the organization and make each individual into an innovator, thereby making the management of intellectual capital the core of the innovation process.

If one considers the economic importance that small companies have in the European economy, as a source of employment, dynamism and innovation, the possible identification of parameters to evaluate intellectual capital management in these companies, when turned into a certifiable process, would enable management to measure if they were in accordance with the set reference parameters. This means that we are conducting organizations towards quality; not certifying procedures or goods, but certifying intellectual capital management, in this case. In addition, as quality is never static, but rather constantly being redefined due to clients’ demands, any business organization wanting to be competitive has to innovate. Thus, if there is the possibility of creating an auditable and certifiable way of managing intellectual capital, quality will demonstrate a controlled dynamism and the organizations will be able to evaluate and control the capacity of innovation of their own intellectual capital.
This paper will show the results of a study to identify which parameter indicators will enable us to evaluate intellectual capital management. For the research, an audit model was used in a number of small Portuguese Companies. The results point to the fact that small Companies show a better performance in the economic and social fields when they balance the various factors shown in the model used.

**Keywords:** Intellectual capital management; knowledge; certification; innovation

**Towards an Integrated Framework of Knowledge Management between Project and Organization Level**

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**Abstract:** In project-based organizations, many practical cases show there is a considerable knowledge gap between project-level and organization level. To bridge such gap, organizations can exploit knowledge intensive human resources, new organizational structures and new information and communication technologies. But all these three dimensions could have trivial effect when there is no central attention toward the content of knowledge that is to be managed. In this paper, we postulated a three layer framework for this problem that its main contribution is that the content of knowledge is at the center of attention, while all other three dimensions of any knowledge management system (HR, Organization and Technology) are designed accordingly. We would try to enrich this framework through a case study in the construction sector, by highlighting practical considerations.

**Keywords:** Knowledge management, project-based organizations, knowledge management activities, organizational structure

**Certification of Intellectual Capital Statements – Quality Requirements for ICS**

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**Abstract:** Managing ‘intellectual capital’ (IC) becomes increasingly vital for future-oriented organisations. The Intellectual Capital Statement (ICS) is an instrument to assess, develop and report organisation’s IC and to monitor critical success factors systematically. It supports strategic management decisions. At present, the statements about IC are varied in structure and content. Resulting from increased interests in managing and reporting of IC, stakeholders such as creditors or investors will receive more and more ICS of totally different qualities - from very trustworthy to not at all believable.

To answer the question of ‘How to ensure the quality of ICS in a sustainable way?’, we develop an approach of ICS certification. It bases on the methods of quality management system certification, financial audit and the assessment for European Excellence Award. For ICS certification, a neutral third party will quality check the ICS beforehand and then audit the organisation on-site. In the end, only the ICS meeting the quality requirements will be rewarded a certificate.
However, a catalogue of requirements serves as the certification basis needs to be in place beforehand. The challenge is to determine the smallest possible amount of requirements that will ensure the ICS meeting the quality criteria: complete, plausible, verifiable, representative for the organisation and have a sustainable impact on IC management.

This paper summarises the crucial factors for a quality assured ICS as shown in the requirement catalogue. The catalogue is the essence of the guidelines from the German project ‘Wissensbilanz – Made in Germany’ and from the EU collective research project ‘Intellectual Capital Statement (InCaS) – Made in Europe’. By using quality techniques such as failure mode and effect analysis (FMEA), we examine the ICS implementation procedure thoroughly for deriving the crucial minimum quality requirements. Furthermore, we include the experiences of ICS implementations in 50 German and 25 European small and medium-sized enterprises. The paper shows additionally how the catalogue can be applied both internally, as a quality assurance guide during the ICS creation, and externally, as a certification basis for ICS audits.

The benefits of ICS certification are: The company gets a quality check by a neutral external ICS auditor assuring that the ICS is of high quality level, in other words, the assessment outcomes and the measures are ‘correct’ and based on verifiable sources. Secondly, the company receives further improvement suggestions after a detailed on-site audit by an expert who is familiar with IC performances of other companies. Finally, a certified ICS has higher credibility for external stakeholders, such as investors, creditors and customers, since it is no longer a mere self assessment result.

Keywords: Intellectual capital statement, quality management, quality requirements, certification audit, EU SME project

Strategic Relevance of Intellectual Capital in European SMEs and Sectoral Differences: InCaS: Intellectual Capital Statement – Made in Europe

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Abstract: As the Lisbon Agenda declares the aim for the European Union to become the most dynamic and competitive knowledge-based market in the world until 2010, management instruments are needed to support companies achieving this ambitious goal. Small and medium-sized companies (SMEs) are especially affected by this plan as they are the driving force of Europe’s economy. To obtain their competitive advantage, it is crucial for SMEs to utilise knowledge efficiently and to enhance their innovation potential. Thus, managing their specific Intellectual Capital (IC) becomes more and more important for future-oriented organisations.

As the value of knowledge highly depends on its particular strategic context it is neither possible nor meaningful to measure the value of knowledge in absolute terms. Knowledge should rather be evaluated regarding its potential to support the company’s individual strategic objectives.
A practical way to tackle this challenge is the methodology developed by the German pilot project “Wissensbilanz – Made in Germany” and the European pilot project “InCaS: Intellectual Capital Statement – Made in Europe”. By applying this method in more than 50 German and 25 European small and medium-sized enterprises it was possible to support the participating companies in identifying, evaluating and developing their strategically relevant knowledge. Furthermore it helped to gain comparable data about crucial knowledge in SMEs and to develop first strategic recommendations in an empirical study. This paper summarises how the InCaS method supports companies developing a knowledge-based strategy. Moreover it describes research results gained from the German and European project about the strategic relevance of particular IC factors in general and their relevance depending on the business sector. Whereas for the German project the differences between the sectors “Industry” and “Services” have been analysed, the results of the European InCaS project allowed for a more detailed analysis between the branches “Business Services & IT”, “Machinery & Equipment”, “Construction”, “Electronics” and “Retail Trade & Other Services”. Besides the overall dominance of Human Capital factors the results indicate that companies in the Industry sector focus on knowledge management activities based on IT and explicit knowledge (codification strategy). The strategically most relevant knowledge in this sector is professional competences, i.e. specialised know-how needed to run the company's main business processes. Service companies, on the other hand, seem to focus on their individual employees’ expertise and informal knowledge transfer if they want to ensure long-term and strategic business success (personalisation strategy). In this sector, motivation and leadership abilities are strategically equally important or even more important than specialised know-how.

**Keywords:** Intellectual Capital, Intellectual Capital Statement, Knowledge Management, Innovation, SME, European Commission/Research

**Knowledge Management In The Field Of Advertising: How Advertising And Media Agencies Manage Knowledge?**

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**Abstract:** In order to survive and to become more competitive in today’s business world, companies need to use knowledge efficiently and effectively. Knowledge has become one of the most valuable and strategic resources for companies aiming to distinguish themselves from their competitors. The better the companies manage knowledge, the more they benefit from a competitive advantage.

Many companies tend to use knowledge management as data or information management since the knowledge management framework is very much a current issue in the modern business world. Although these concepts are related, they should in fact be considered and managed differently. Of the two, knowledge management is a much wider subject, consisting of data, organizational culture and information management.

Business-to-business services, such as advertising, which generate much creativity, are highly intangible, competitive and carry high risks. Therefore, managing and selling knowledge are the essential functions of these services. Advertising and media agencies need to use knowledge management in order to win, provide value to and maintain profitable clients.
Today’s clients give greater importance both to specialization, and to processed, construed data and information knowledge. They require solutions based on knowledge gained from data specially analyzed and formed to meet their own needs. Information and data for the field of advertising is gathered from different areas, such as marketing, consumer behaviour, media, and communication technologies. It is the agencies’ job to manage and sell the knowledge relating to advertising, consumer, media and creative crafts by using this information and data. The main aim of our research is to show how agencies gather information and data from these fields to use as knowledge for their clients. Our research is based on qualitative data obtained from leading advertising and media agencies (including both international and national companies) as published by the Turkish Foundation of Advertising Agencies.

**Keywords:** Knowledge, knowledge management, advertising and media agencies

### The Relation of Rotation and Knowledge Transfer: A study of the R&D activities of a Japanese manufacturer

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**Abstract:** Japanese manufacturers have competitive strength particularly in the electronics and automobile industries. Moreover, Japanese manufacturers have efficient knowledge sharing practices. Therefore, we can state that Japanese manufacturers possess competitive strength from a knowledge-based view (KBM). In order to investigate the origin of this competitive strength pertaining to knowledge, which is evident in Japanese manufacturers, this paper sheds light on the rotation of personnel with regard to the research and development of forefront technology.

We procured the rotation data of all the engineers (N = 1350) assigned to the central research institutes of a Japanese manufacturer. The central research institutes consisted of the material, mechatronics, e-component, and multimedia research institutes. In addition to utilizing this quantitative data, we interviewed the R&D director of the company who was familiar with all of its R&D activities.

First, we analysed each research institute in 1998 based on the following criteria, and subsequently analysed each engineer’s rotation term: (1) the number of engineers who had worked in the planning departments, (2) the number of engineers who had worked in the basic research institute, and (3) the number of engineers who had worked in the product development departments.

Furthermore, based on the data obtained from the interviews, we were able to infer as follows. First, engineers from the planning departments play an important role in accessing the expertise of other organizations. Second, engineers from the basic research institute play a significant role in evaluating external expertise by utilizing the professional networks to which they belonged in the basic research institute. Finally, engineers from the product development departments play a crucial role in adapting the research in forefront technology to the market needs.

The rotation of personnel facilitates knowledge transfer. This is because the rotated personnel bring with them new values, ideas, knowledge, and networks. In this paper, we discuss an adequate rotation policy by analysing two successful and unsuccessful research institutes. Our research subject was a large Japanese manufacturer. We revealed that the successful research institutes conducted adequate knowledge transfer
through adequate rotation. Japanese manufacturers are well known as high-performance knowledge-sharing companies with strong networks. In addition to network, we revealed the aspects of an effective rotation policy.

**Keywords:** Rotation, knowledge transfer process, access to knowledge source, evaluation of knowledge, product yield

### The Impact of Human Resources Management on Knowledge Management Processes in Industrial Organizations

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**Abstract:** Focusing on the human and behavioural dimensions of knowledge management (KM), this investigation aims to analyse the impact (enhancer or inhibitor) of human resources management (HRM) assumptions on KM processes. In particular, attempts to explore the relational dynamic(s) between the organizational collaborators’ perspectives of sophistication about training, performance assessment and rewards system and the applicability level of four considered dimensions of KM processes. To accomplish the central constructs measurement of this study we developed actions that led to the construction and validation of three new scales (PPFP; PPAD; PPSR), as well as the application of a KM questionnaire (GC). The present study entails multiple data analysis of 1364 individual self-administered questionnaires which were collected from 55 organizations in four Portuguese industrial ceramic sub-sectors.

To analyse the linear relationship between a group of HRM predictor variables and a KM criterion variable, hierarchical multiple regression equations were implemented. Two variable blocks were considered. In the first model, we only analysed the two training dimensions (denominated “training as a constraint to organizations” and “training as a strategic investment for organizations”) which were obtained through factor analysis on the PPFP scale. In the second model, performance assessment and rewards system variables were added to the first model, specifically the first factor retained in the psychometric analysis of the PPAD and PPSR scales (denominated “wide, participated and process perspective of performance assessment” and “rewards system based on knowledge and merit”). Considering the impact level on four GC scale dimensions those two models were statistically compared.

**Keywords:** Knowledge management, human resources management, industrial organizations

### An Emergent Approach to Knowledge Management Systems Development

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**Abstract:** There is no credible methodology for knowledge management systems development (KMSD). We report on a KMSD approach that has emerged from an investigation based on action research and grounded theory into a number of business problems experienced by organizations. The KMSD approach is highly participatory, requiring full involvement of members of an organization. It has three interacting aspects:
envisioning knowledge work behaviour, design of knowledge management system (KMS), and identifying technology options for supporting the KMS. In the first of these, challenges and opportunities in an organization’s current situation are analysed and an improved situation is envisioned to expose knowledge concepts and their properties. In the second, a logical design of a KMS is produced using knowledge entities, knowledge flows and knowledge interfaces; the design is guided and constrained by an organization’s structure, culture, and resources. The third aspect is to do with introducing appropriate IT into KMS design, integrating organizational, social and technological aspects of the system. The paper describes this KMSD approach and how it emerged from both practical and theoretical investigation.

**Keywords:** knowledge management, knowledge management systems, knowledge management systems development, organizational improvement, action research, grounded theory, small and medium enterprises (SMEs)

**Learning and Development, Creativity and Flexibility, Management Support and Technological Knowledge Acquisition in Uganda’s Manufacturing Industries**

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**Abstract:** Knowledge acquisition has received widespread attention in research yet few empirical studies exist especially in Africa. This study analysed the effect of firm-level learning capabilities on technological knowledge acquisition in International Joint Ventures in Uganda’s manufacturing industries. A total of 103 IJV’s were surveyed using a self-administered questionnaire. Data was analysed using factor and reliability analysis and multiple regressions. Findings confirm a positive significant relationship between creativity and flexibility, management support and knowledge acquisition. These findings are in line with the realization that the rapid globalisation of markets coupled with the complexity of organisational tasks resulting from rapid technological changes has made it impossible for any one firm to be entirely self-reliant. Governments' inducement to form linkages is related to organizations need for resources because organizations cover only part of their value chain and rely on their environments. The findings also reveal that there is no significant relationship between learning and development and technological knowledge acquisition which finding is contrary to conventional wisdom and other similar studies. One major implication arising from the findings is that Uganda government’s policy of encouraging joint partnerships as a way of tapping into foreign partners’ knowledge bases is beneficial to local partners. This is further accentuated by the disclosure of limited prospects for endogenous technological development coupled with insufficient levels of scientific and technological knowledge on the part of the Government of Uganda. Given the findings, it's imperative for Uganda Government to revise existing policy on knowledge acquisition strategies by providing more resources to encourage creativity and flexibility and to enhance managerial capabilities. The study comes up with strategic actions to strengthen local IJV partners in order to benefit from foreign investors' knowledge bases. Future research could be directed to conducting a longitudinal study to examine other types of knowledge preferably in service industries since this study only investigated technological knowledge acquisition in the manufacturing sector.

**Keywords:** Knowledge acquisition, international joint ventures, technological knowledge
Building the External Knowledge Map for Iranian Manufacturing SMEs

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Abstract: It is widely recognized that knowledge is an essential strategic resource for a firm to achieve sustainable competitive advantage and Knowledge Management (KM) is a fundamental concept for those interested in the ever changing business world. However, KM has received little attention in Small and Medium sized Enterprises (SMEs). Unique characteristics of SMEs affect their approach in knowledge management, so different KM processes should be applied in these firms. SMEs have very simple structures, so they have less difficulty in managing their internal knowledge than large organizations. But this is not the case for external knowledge management, especially external knowledge acquisition process. Such small firms do not have adequate financial resources to have their own Research and Development (R&D) department. Hence, they have to absorb knowledge from external sources to develop their business and improve their performance. The first stage, identifying reliable knowledge sources, is one of the most challenging tasks for SMEs. So, in developed countries, large supportive activities have been done helping SMEs to deal with this problem. Iran's Ministry of Industries and Mines has also pursued the implementation of a Knowledge Network facilitating the external knowledge acquisition process in Iranian SMEs. With this end in view, a research project was defined by Ministry of Industries and Mines in the Center for Technology Studies (Sharif University of Technology) to develop the conceptual model of such network.

For identifying knowledge requirements of Iranian SMEs, 10 in-depth interviews with top managers of three governmental organizations were arranged in order to get insight in the knowledge requirements in Iranian manufacturing SMEs. Based on these insights, a questionnaire was designed and then filled out by 154 SME managers. They were asked about their firm’s knowledge deficiencies and current external sources from which they obtain needed knowledge. Using gathered information, we categorized the required knowledge for each industry. Regarding this categorization, a knowledge-base, including source information such as knowledge acquisition conditions, degree of importance and contact information, was developed through three months of comprehensive search. Finally, the knowledge map of each industry, which links required knowledge of each industry to knowledge sources, was prepared and delivered to the SMEs. Furthermore, it is worth mentioning that Iran’s Ministry of Industries and Mines is using this knowledge map for providing costly and essential sources for SMEs.

Keywords: Knowledge management, external knowledge, knowledge map, knowledge acquisition, SME
Process of Knowledge Creation within Entrepreneurial Teams: Illustration using The Nonaka and Takeuchi Model

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Abstract: We noted growing research interest into entrepreneurship as collective phenomena. We witnessed an increasing number of team creation. Their members enrich the new venture creation by their different skills and experiences, social networks and complementary competencies (Vyakarnam, S and Handelberg, J 2005). Other researchers showed that new ventures created by teams are more able to succeed than ventures created by a sole individual (Cooper and Bruno 1977; Eisenhardt and Schoonhoven 1990; Obermayer 1980; Vyakarnam, S., Jacobs, R. C., & Handelberg, J 1997).

An organization is considered as an open rational system (Scott, 1998). To survive, it is necessary for companies to emphasize human resources, which must be unique, inimitable and creative of value (Barney, 1986). Through this logic based on the resource based view, the approach by knowledge was born. This approach introduces the strategic primacy of knowledge as resource from its intrinsic characteristics which naturally fulfil conditions of competitive advantages’ emergence (Spender, 1996; Prahalad & Hamel, 1990).

However, we noted that the notion of knowledge creation within the teams has not been developed in the field of entrepreneurship. Indeed, many current researches focus, on one hand, on entrepreneurial teams and knowledge creation on the other hand, but few are the works that have made these two concepts together and explained the relationship may exist between them. Thus we explore, through this article, a possible relationship between knowledge creation process and the entrepreneurial team. We will use both the fields of entrepreneurship and Nonaka and Takeuchi matrix. These lead us to implement a theoretical process of knowledge creation in the entrepreneurial teams starting with the individual to reach the team and the organization.

Keywords: Entrepreneurial teams, knowledge creation process, new venture creation
Social Network Analysis Applied to Knowledge Creation and Transfer in the Portuguese Agricultural R&D Field: an Exploratory Study

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Abstract: There is growing interest in the nature and scale of scientific collaboration regarding the processes involved with knowledge creation and sharing. One of the possible approaches to developing metrics for this area of research is based on the idea that co-authorship creates a social network of researchers.

We present an exploratory study using a social network approach to examine the structure and pattern of knowledge creation and sharing within a Portuguese research community, working in the agricultural field, over the last seven years. The members of this community are with the Instituto Nacional da Investigação Agrária (INIA) which recently became part of a newly created R&D State Laboratory, Instituto Nacional dos Recursos Biológicos (INRB), under the umbrella of the Portuguese Ministry of Agriculture Rural Development and Fisheries.

The social network analysis used data from an information system containing the results from all the scientific activities developed in the last seven years by the research community working in INIA. The information system was the major result of AGRO 444 - Development of an Information System for Knowledge and Innovation Discovery and Diffusion in the Agro-Rural Sector, a project funded by Measure 8.1 of Programa AGRO, one of the policy instruments of “3º Quadro Comunitário de Apoio” (Third European Framework Aid to Portugal, 2000-2006).

From this data, a knowledge network was developed based on co-authorship patterns extracted from the information system, covering the period 2000-2006. This knowledge network supported the analysis of specific paths through which knowledge sharing occurred and by which knowledge capital was nurtured within the agricultural R&D activities of this institution.

Keywords: Knowledge creation, knowledge sharing, knowledge capital, Portugal, agriculture R&D, social network analysis
e-Learning Tools and Standardisation in Higher Education Settings: The Importance of Quality Improvement (The Case of Nancy 2 University in France)

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Abstract: The complexity of the concept of knowledge has been pointed out by numerous scholars (Nonaka, 1994; Brown and Duguid, 1991). It can be defined by a numbers of factors among which, creation, management, evaluation and sharing of information. Here, it involves the idea of a "fluid mix of framed experience, values, contextual information and expert insight that provide[s] a framework for evaluation and incorporating new experiences and information" (Davenport and Prusak, in Sambamurthy & Subramani, 2005). Knowledge sharing is becoming one of the main fields where innovative tools are experimented. Private sector organizations are not the only ones embracing Knowledge Management (Luen & Al-Hawamdeh, 2001). Recently, public institutions, such as universities have showed interest in the management of knowledge through New Information and Communication Technologies. E-learning, a mode of learning which draws benefits from the use of information and communication technologies on all levels of training activities becomes one of the models of knowledge management in these universities. It particularly shows a method of training whose principal objectives can be autonomy of training, distance learning, individualization of training options and development of pedagogic relations online (Bellier, 2001). The main specificity of E-learning is its combination of two dimensions: inventive use of new technologies and the reshaping of the traditional conception of learning practices. One of e-learning’s challenges remains how the knowledge available on the different platforms is managed for efficient results. This paper examines the impact knowledge management (creation, storage and sharing of e-courses, e-references and all electronic contents of learning) on the improvement of quality in education. Universities have strong interest in the development of e-learning technological tools for knowledge management processes. Synchronous and asynchronous tools such as Internet, Intranet, chat, forum, Blog, Wiki… are often used. Standardisation also plays a key role in circulation and knowledge sharing, reshaping knowledge boundary. Nancy 2 university gives a slide example of internal and external knowledge building and sharing through its e-learning courses, through a study conducted by VIDEOSCOPE project team in University Nancy 2 and interviews of e-learners.

Keywords: Knowledge management, e-learning, university, standardisation
Combination of Grounded Theory and Organizing Strategies for Rigor in Knowledge Management Research Methodology

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Abstract: Our work to build a knowledge model that enables a knowledge management system to effectively narrate stories in the context of aesthetic experience and judgment for batik textile poses some challenge. Our crucial task is on the elicitation of tacit knowledge gained from aesthetic experience among the batik textile designers. This domain tacit knowledge is often shared and communicated within the batik textile designers’ community of practice by means of a contextual language for mentoring and quality assessment of the batik design. The batik community of practice consists of creative, visually oriented and practice driven individuals who use storytelling and exemplars as means of knowledge sharing. In the elicitation attempt, we resort to the qualitative research methodology within an interpretive paradigm to discover meaning and pattern from stories and exemplars. As the rigor of qualitative research is dependent on application of method we strategize a combined methodology strategies to strengthen research findings by taking advantage of capabilities of individual method.

In this paper we present our combined methodology and attempt to justify our strategy can achieve rigor in investigating the domain tacit knowledge within the creative and practiced-driven community. We reviewed more than ten research papers including research methodology assessment papers published in management and IS literature since 1990. We proposed a combination of grounded theory and organizing strategies consisting of narrative and visual mapping to enhance an adopted knowledge management research methodology. We simulate the community of practice knowledge sharing scenario by conducting three (3) focus group storytelling workshops and analyse the stories collected using thematic analysis and visual mapping. We compare the themes identified iteratively with the output of narrative inquiry into batik textual stories from literature and documents to identify and characterize domain tacit knowledge of the batik textile designers. The result shows a significant success in the elicitation process reflected by the saturation point achieved.

Keywords: Aesthetics experience, tacit knowledge, grounded theory, narrative, visual mapping, knowledge management

Emergent KM Axioms of Information Sharing: Remediating Four Fatal Flaws in the Touchstones of Information Sharing

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Abstract: In the 21st century Knowledge Management (KM) is being down shifted into an organisation function (typically human resources) or relegated to a management technique (typically process oriented). So the integrating perspective that KM offers is thus being hampered by the exigencies of business function and their specific problems. The KM literature is examined using a social complexity lens to identify the dominant assumptions
In KM. It is argued that the four assumptions retard the usefulness of KM. The first assumption is that tacit and explicit knowledge are severable. The second assumption is the hierarchy of data, information and knowledge. The third assumption is the predilection for stored knowledge over informal or personal knowledge. The fourth assumption is the privileging of common interest groupings. In place of these assumptions, four information sharing axioms are advanced. The first is to treat tacit and explicit knowledge as inseparable. The second is to recognise the multi-dimensional status of knowledge in communication. The third is to recognise that the storage of knowledge is an act of power. The fourth is to recognise that sharing information is an imperfect social act. A sensemaking ecology of information sharing is then proposed. Both the axioms and the sensemaking framework are used in two vignettes (one historic and one contemporary) of information sharing. The vignettes suggest that emergent information sharing can be fostered although the outcomes cannot be pre-determined. Three guidelines for successful emergent information sharing are proposed as an alternative for traditional methods which rely on incentives, imperatives and injunctions.

**Keywords**: Emergence, emergent properties, information sharing, KM axioms, knowledge sharing, tacit knowledge

**Influence of Corporate Culture on the Effectiveness of Communities of Practice**

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**Abstract**: Knowledge is an essential resource for most of today’s organisations. Therefore high efforts are taken to implement highly effective and efficient knowledge-based processes. During the last 20 years, not only the huge potential of different knowledge management measures but also different drawbacks have become obvious. Scientists and practitioners are still working on analysing factors that influence the successful implementation of knowledge management tools and to find ways to measure its effectiveness in organisations.

One tool that gains increasing importance in knowledge-intensive organisations are Communities of Practice (CoPs). CoPs are informal groups of people with a common interest to exchange knowledge concerning a specific topic. Therefore they are highly applicable for identifying, sharing, developing and saving explicit and tacit knowledge. Practical experience has shown that CoPs are one of the most effective tools to support organisational learning but at the same time one of the most difficult ones.

Based on their potential for experience exchange and spreading excellence, arsenal research decided to develop CoPs as a strategic management tool. Special emphasis is given the cultivation of a collaborative and innovative working environment that cross-links its multidisciplinary research staff and by that supports knowledge transfer and increases knowledge efficiency. The CoPs are up and running for two years and the experiences made up to now will be summarized.

The CoPs are continuously monitored and evaluated by a knowledge management team. For evaluating the effectiveness and the impacts of the Communities a Social Network Analysis (SNA), based on a quantitative questionnaire, was performed twice – first in the starting phase of the Communities and second after about 18 months operating time. The
results of these two SNAs indicated that the Communities have indeed contributed to a better linkage of the scientists. Nevertheless the communities have still to be improved to gain better knowledge efficiency within the entire organisation.

To identify the main influencing factors on the CoPs the corporate culture was analysed, focusing especially on the strength of corporate culture. Based on qualitative interviews factors supporting and hindering the CoPs have been identified and different options to positively influence cooperation and communication between different business fields and within the Communities were recommended.

**Keywords:** Knowledge management, communities of practice, corporate culture, social network analysis, knowledge efficiency.

**Projects in the Knowledge Economy**

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**Abstract:** New ways of working have to be explored to ensure learning and knowledge become prime foci in the Knowledge Economy. One approach would be to re-engineer conventional processes to centre on knowledge rather than on tangible deliverables and their production activities. This paper demonstrates that strategy, by proposing radical new theories of projects and project management.

Project management has been successfully applied in a wide range of industries where deliverables are tangible and planning and control are predictable, such as construction and aviation. These are environments where the outcomes and tasks to achieve them are known or can be accurately described. Knowledge Economy projects on the other hand are characterised by knowledge intensive or novel activities, unique or unknown solutions, complex and dynamic environments, and skilled and creative staff.

Projects in the Knowledge Economy have been difficult to plan and control. Empirical evidence suggests a higher than normal project failure rate in information technology, creative industries and research. Lack of success may be attributed to the inherent complexity and ‘unknowability’ of these projects’ work breakdown structures, particularly during initial planning phases. Conventional project management approaches have attempted to mitigate this situation through techniques such as iterative methodologies, experience based estimation and project reviews. By accounts these too have met with limited success.

Lack of an explicit theory of project management hampers efforts to devise new approaches. Establishing theory for knowledge-based projects and knowledge based project management was consequently a primary objective of this research. This theory uses algebraic models to redefine projects as finite sets of interrelated knowledge configurations, and project management as a process of systematically and optimally arranging and coordinating these knowledge configurations to achieve specific objectives.

It is intended that these theories address the demands imposed by the Knowledge Economy on projects, whilst retaining those project characteristics that are important to practitioners. These theories will also underpin a knowledge based project management methodology that may be used to inform and describe relevant practice.
Keywords: Knowledge, projects, project management, knowledge economy

Development of a “Sticky” Virtual Community on the Internet Environment

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Abstract: This article presents an activity-based approach for teaching and learning applied to Higher Education. The objectives are twofold – first to utilise advances of Knowledge Management in education and second to teach the students in Virtual Communities as a powerful modern model for Knowledge Management. According to the classics [Rheingold, 2000] in this field a virtual community (also known from the literature as e-community or online community) is a group of people (presumably remotely distributed) that interact via some form of remote communications such as letters, telephone, email, or Internet rather than face to face. In modern network environment we can see also online communities where members are available simultaneously. With regard to the used media in online communities could be differentiated text, audio, visual and multimedia communities. The concept of ‘sticky’ virtual community refers to ones where repeated interactions (visits to websites as common place) require particular features in design to support and retain interest. Regular change in content, ability to use as a reference site, superior linkage to other resources, efficient design and many other factors play a part. Virtual and online communities have also become a dominant form of communication between people who are engaged with computer-based work. A computer-mediated community (CMC) uses specific software to regulate the social substance of this interaction. Essential socio-technical change could arise from the liaison of heterogeneous Internet-based social networks. Dealing with social context needs to consider, also, psychological and other factors outside of basic technical design.

Through the study of this activity, students will be trained to design, implement and develop virtual communities in a given area by using modern networking and communication tools and techniques.

The article presents major elements and discusses expected learning outcomes, proposed learning and teaching strategy and determines areas of study. The article also describes criteria for assessment potential employability. Compatibility with existing units, software and library requirements are considered, as well.

Keywords: Active learning, social capital, socio-technical changes, virtual community

Implementation of Knowledge Management in Japanese Higher Education: the Challenge of New Ideas in Systems Bound to a Tradition of Hierarchy

Robert Perkins
Nara University of Education, Japan

Abstract: The author presents the theory and practical application of Knowledge Management within both the university and culture of Japan. The author identifies challenges and limitations in applying the principles of Knowledge Management to educational institutions in Japan. Specific examples show that: (1) KM is not commonly
deployed in the mainstream Japanese academic community. (2) little has been written about KM by or for the Japanese educational community. (3) Japan maintains a deeply-entrenched, hierarchal structure in business and academics. Japanese academics are not inclined toward confrontation to create improvement. Harmony, rather than change in the name of efficiency is still central to the system. The author discusses the Japanese tradition of adapting innovative ideas and practices that they discover beyond their borders. However, the implementations of these new ideas often come into conflict with traditional, Japanese cultural mores. The idea that KM holds the potential for institutions of education to discover and utilize intellectual capital are certainly not foreign to Japanese models of learning. However, the route to understanding the implementation of KM requires more than the introduction of complicated technological processes, and this creates a barrier. To develop a knowledge base that delivers utility to the faculty, administration and the student population is considerably more difficult within systems that strictly abide by long-established traditions in daily practice. The author discusses academic accountability and knowledge bias, the use of curriculum frameworks and standards, the need to redirect Japanese faculty members to realize the universal benefits of an expanding knowledge base accessible to all. This accessibility sparks innovation, loosens traditional thought processes and encourages new approaches to new challenges. The author then demonstrates the difficulties of introducing and implementing Knowledge Management in the Japanese culture that has engrained traditions based on hierarchy. The author uses examples from his ongoing work as a member of the curriculum framework committee of Nara University of Education to provide actionable solutions to practitioners of KM and address problems inherent in similar educational systems.

**Keywords:** Japan, higher education, knowledge management

**Using a Balanced Scorecard Approach to Enhance the Management of Knowledge Transfer Partnerships**

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**Abstract:** This paper considers the delivery of government funded Knowledge Transfer Partnerships (KTP), and the need to ensure that the knowledge being transferred is based upon Deep Smarts. To this aim it is proposed that an Intellectual Capital Audit (ICA) is undertaken at the start of each KTP, and again at regular points during the active life of each project, so that the successful engagement of Deep Smarts (the deepest knowledge and understanding held by experts) can be measured and monitored.

As Deep Smarts are considered to be observable phenomena, a methodology is proposed that takes a Value Measurement approach using a balance scorecard. The balanced scorecard was developed as a simple form of strategic management. Its strength and utility lie in its ability to relate vision and strategy to four key business functions: financial, customers, internal business processes, learning & growth, and to reveal any causal links between them. The balanced scorecard is well suited to an ICA of Deep Smarts as it provides a quantitative solution for KTP measurement during its active phase. More importantly, it also offers a mechanism for forecasting the progress of the KTP, resulting (in principle) in higher levels of future performance.
Because Deep Smarts themselves are very difficult to define, and therefore almost impossible to identify and monitor, a process is required to determine the consequential beneficial attributes that would result from the successful use and transfer of Deep Smarts. It was considered that monitoring changes within these the consequential beneficial attributes would provide a direct indication of successful knowledge transfer being achieved, and would also provide an indication of the level of Deep Smarts exploitation on an on-going basis.

Although the optimal solution would be to consider such consequential beneficial attributes for both university and company partners, it was the purpose of this research to concentrate on those relating to only the university in the first instance.

A generic balanced scorecard ICA of Deep Smarts applicable for KTPs was therefore developed as a tool that could be employed to determine the consequential beneficial attributes relating to the successful transfer and deployment of Deep Smarts within the delivery of a Knowledge Transfer Partnership.

Keywords: Knowledge management, knowledge transfer partnerships, balanced scorecard, deep smarts, intellectual capital audit, deep smarts

KM-M-CM: Knowledge Management as a Mechanism for Change Management

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Abstract: Over the last decade higher education has had to face numerous pressures and changes (globalization, mass education, large-scale university rivalry – local, private and foreign – budget cuts, demands for greater accountability and increasingly sophisticated technologies) (Hanna, 2003; Scott, 2003; Waterhouse, 2005). Universities, the world over, must adapt to daunting social and educational challenges, in which technology is playing a bigger role than ever before – both in inducing changes as well as in providing the means to cope with them. The role of technology in reshaping the university's very essence is pivotal in helping fulfill academia's role as an agent of social and cultural change. Such a mechanism would provide the means whereby decisions will be made regarding organizational and technological shifts that are to determine the university's ability to survive and attract prospective students and staff, particularly in view of the traditional reluctance in some academic circles to embrace changes (Smith, 1999; Elton, 2003). This study presents a cross-section examination of two overall organizational changes introduced into the work processes of Israel's higher education system during the past seven years: E-learning environment and ERP technology. The aim of this work was to describe the manner and method by which technological changes such as E-learning and ERP had been dealt with in universities and with in the Higher education system. This research uses the "grounded theory" as its methodology.

One of the main findings was that overall organizational changes in Israeli universities are taking place without a clear and well-planned model. The research data yielded that there is a sort of a mechanism (not pre-conceived) for large-scale technological and organizational change management in Israeli universities. This mechanism acts as a CoP (community of practices) and is influenced by other universities' decisions. They do so by lobbying, sharing and promoting the change benefits and providing guidelines. Any
implementation of a given decision could in turn set the whole process in motion again. It emerged rather as a Knowledge Management process. On the basis of this understanding, it would seem imperative to devise a pre-conceived and well-planned model that would enable efficacious large-scale organizational and technological change management.

**KM-M-CM:** (Knowledge Management as a Mechanism for Change Management). The model draws on existing processes (mostly partial) and sets out to formulate them in a methodical, rationally-sound, and pre-planned framework. This model will achieve two targets: firstly, establishing a well planned mechanism for managing large-scale technological changes, previously non-existent. Secondly, devising a new mechanism based on existing processes in the university’s organizational and environmental practices.

**Keywords:** Knowledge management, change management, Higher Education

**Using a Balanced Scorecard Approach to Enhance the Management of Knowledge Transfer Partnerships**

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**Keywords:** Knowledge management, knowledge transfer partnerships, balanced scorecard, deep smarts, intellectual capital audit, deep smarts

**Is Knowledge-Based Production a New Concept?**

**Nick Potts**  
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**Abstract:** Our intention is to demonstrate how Marx’s integrated understanding of capitalism in general, which follows from his theory of the determination of value by labour-time, helps us to understand the particular question of knowledge-based production. We do not believe that Marx’s analysis of capitalism is narrowly historically specific to any ‘stage’ of capitalism, but that it applies to capitalism in general, so the growth of knowledge-based production does not require us to ‘modify’ Marx (as in, for example Hardt and Negri 2000). Furthermore, we contend that Marx cannot be meaningfully or adequately applied à-al-carte. Marx’s theory of value implies a certain definition of what is ‘productive’ and ‘unproductive’ labour. Consequently if we specify, for a particular purpose, a different definition of ‘productive’ and ‘unproductive’ labour (like, for example Harvie 2006), we lose any coherent link to Marx’s theory of value and the inherent tendencies within capitalism that Marx identifies, through employing his theory of value i.e. we lose Marx’s bigger picture. However, since Sweezy (1942) popularised Bortkiewicz’s ‘proof’ of Marx’s ‘errors’, Marxist economists have accepted that Marx’s theory of value is internally inconsistent anyway, and have consequently ‘corrected’ Marx à-al-carte, preserving only differing sub-sets (according to their chosen manner of correction) of Marx’s original conclusions. For the totality of Marx’s vision of capitalism to be taken seriously, Marx must be rescued from allegations of internal inconsistency. The Temporal Single System Interpretation (TSSI) of Marx precisely sets out to achieve this goal. The TSSI explains that if we interpret Marx as having a sequential and non-dualistic method (see below), then Marx is, and always has been, internally consistent, bringing the totality of Marx’s vision back into business. We can thus apply an internally consistent holistic Marx to the question of knowledge-based production.

Our first section further explores the question of the internal consistency of Marx’s theory of value. Section two considers how Marx’s conception of capitalism as the unity of a valorization process and a labour process shapes our conception of what is productive (and productive of what). Section three explores how Marx’s definition of productive and unproductive labour is relevant to knowledge-based production. Section four focuses on how to understand research and development, a knowledge intensive activity, in the context of Marx’s theory of value. Section five tries to assess questions of training/skills in our knowledge-based society, informed by Marx’s concept of simple and more complex labour-power. Finally we conclude, in the context of what George Lucas considers to be the value of 49 seconds of film/knowledge-based production.

**Keywords:** Marx, value theory, knowledge-based production
Knowledge Creation and Knowledge Sharing: Synergy or Discrepancy?

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Abstract: This theoretical paper investigates the relationships between two major intrafirm knowledge-related processes: knowledge creation and knowledge sharing, and contributes to filling an important gap in the literature. On the one hand there is a special attention to knowledge sharing with strong emphasis on cognitive, structural, motivational and cultural barriers as well as on management tools and parameters of organizational context that help to overcome them. On the other hand there is a separate interest in innovations and creativity as well as in managerial practices and conditions that benefit new knowledge creation. It seems that there is an underlying assumption that everything that benefits effective knowledge sharing should benefit effective knowledge creation and vice versa. Our main questions are: “where and why knowledge creation and knowledge transfer contradict?” We point that there are factors that can have discrepant consequences: some conditions of knowledge creation may produce barriers for knowledge sharing and knowledge sharing context can inhibit creativity.

We start with a brief definition of central concepts to avoid contradictions routed in terminology rather than in processes. Then we draw three major dilemmas of knowledge management: diversity vs. similarity; autonomy vs. hierarchy; fluctuation vs. stability. Afterwards we operationalize these dilemmas through structural and cultural factors of organizational context and management tools. On the one hand, clear division of functions and powers, cooperation, similarity in expertise and cultural norms, strong corporate culture intensify knowledge transfer. On the other hand, decentralized structures, overlapping, competition, diversity, strong subcultures are more challenging for new knowledge creation. Finally we suggest some important implications for strategic management. The paper will be interesting both for knowledge management academicians and practitioners as far as it addresses an important and neglected question of balancing contradictions of knowledge creation and knowledge transfer processes.

Keywords: knowledge creation, knowledge sharing, autonomy, diversity, fluctuation, knowledge strategy

Value, Kaizen and Knowledge Management: Developing a Knowledge Management Strategy for Southampton Solent University

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Abstract: The process of development of the strategic plan for Southampton Solent University offered a vehicle for the development of kaizen and knowledge management (KM) activities within the institution. The essential overlap between the methods offers clear benefits in the HE environment. In consideration of the aspects of KM and kaizen, various potential opportunities were identified as targets for improvement, and clarified by knowledge audit as to value and viability. The derived outcomes are listed along with

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The Concept of Knowledge in KM: A Relational Model

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Abstract: This paper reports progress in research into the applicability of the knowledge management (KM) paradigm to third sector organizations. Case studies and an action research project are described. Although KM techniques are in use, resource priorities, program funding, and dispersed authority inhibit KM in these organizations. There is little intentional consideration of the relationships between the values held by these organizations and the data gathered from experience. A relational knowledge domain model is proposed to promote a more holistic approach to knowledge and its management in such values driven organizations.

Keywords: Organizational knowledge, knowledge management frameworks, nonprofit organizations, third sector organizations, case study, action research.

Making Socratic Dialogue Work in a Business Environment: A Case of Knowledge Management

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Abstract: From recent research it emerges that addressing questions such as: How can an organisation harness collective intelligence to improve business performance? and What data is required to build efficient and effective knowledge based systems? are critical for organizations to succeed in the knowledge society (EIU, 2007).

Organizations are aware that knowledge is essential for their survival in dynamic markets, and that intellectual capital is a valuable asset. But what most organizations´ leaderships are not clear on is how to create and manage this intangible asset. It is known that investment in training is essential, but it is often unclear how this investment may be converted into improved performance? People may be an organisation’s greatest asset but how can knowledge be applied competitively and how can flight be avoided in high turnover environments as more and more generation Y employees come into the labour market? It is well established that effective knowledge management requires a culture of sharing ideas, but how do organizations foster this type of exchange? Davenport & Prusak (1998) pointed out that if as the aphorism says, Knowledge is power, why should anyone want to share it? Some organizations try to encourage knowledge building and sharing by sending management to specialized training at universities, but budgets are limited so only a few people have the opportunity of embarking on these programmes, and the applicability of the lessons learned through such courses is debatable.
This paper proposes the Socratic Dialogue (Remenyi, 2007) as one of the tools organizations can use to facilitate organizational knowledge building and exchange. The Socratic Dialogue may also be used to promote communities of practice. The Socratic Dialogue facilitates the construction of knowledge through discourse based on personal experience and this can create a culture of knowledge sharing. The paper explores the Socratic Dialogue and its process; it illustrates its application through the analysis of a case; and finally articulates some reflections on how to make it work effectively.

**Keywords:** Socratic Dialogue, Knowledge Management, Knowledge Sharing, Organizational Learning.

**Task Journals as Means to Describe Temporal Task Aspects for Reuse in Task Patterns**

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**Abstract:** The reuse of work experience is the central topic of knowledge management (KM), especially in the context of knowledge work. However, the focus of most KM systems is restricted to the handling of knowledge artefacts such as documents, diagrams etc. as isolated entities. Moreover, the work context and its temporal aspects, i.e., activities that take place at specific points of time and are related to other activities, are mostly neglected. Even if there are best practice descriptions these are less formalised and not accessible for IT systems. On the other hand, there are business process management approaches that deal with dependencies in collaborative work activities but they concentrate on the dependencies between tasks and neglect the KM aspects. Recently we have proposed a task pattern approach to support the transfer of the experience of knowledge workers. To realise the idea of task patterns we formalise the operational and temporal structure of tasks. Based on Activity Theory we have developed a conceptualisation that fulfils these requirements. Tasks are broken down into individual operations and occurring problems are described in a formal semantic way and collected in Task Journals. These supply the knowledge worker with an overview of the most important events and activities that represent the task execution and give knowledge workers access to the resources employed in these activities. The Task Journal does not only provide the knowledge worker with information about the task proceeding but it can also be used for task pattern creation, i.e., formal work experience assets that are then distributed via a KM system. Since the individual events or operations described in the Task Journal are formally represented, IT systems can support knowledge workers in identifying similar tasks and in transferring assets from there to their own tasks. In this way they decisively go beyond mere best practice descriptions.

**Keywords:** Knowledge work, task management, experience management, task patterns, activity theory
Risk and Knowledge Relationships: An Investment Point of View

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Abstract: Several different approaches to the measurement and evaluation of Intellectual Capital and Knowledge Management have been devised; companies now use multiple indicators to identify the value of the programs developed. Equally, there are studies about the psychology of the investor and the decision making process for portfolio selection. However, the relationship between investment risk and the expertise of the company, or the knowledge (know-how) of what the company does, has not been identified. The aim of this paper is to identify the relationship between risk and knowledge. Variables defining the expertise of the company and its management are used to identify relationships with risk evaluation and investment in the company’s shares.

This relationship is investigated using data from published company reports and from international suppliers of financial data. A knowledge indicator is created and used in the identification of relationships. The knowledge and risk relationship is based on the company risk evaluation, the value of its shares, years in business of the company, the experience of its management, financial statement quality and variables identifying organizational development. In this paper, the expectations of future returns are considered as part of the understanding of the risk level and the quality of the knowledge that the company possesses.

Potential relationships are investigated using descriptive statistics and multivariate statistical models. The results of the research are of two types: first, identification of the significant variables and description of the relationship(s); and second, as a step towards opening a methodological path to evaluate risk and knowledge perception from the investor point of view. The results show that there are differences among groups of companies given that the risk, KM and structural capacity variables can be combined to describe the groups.

Keywords: Knowledge management, intellectual capital, risk management, investment
The onset of information age with new electronic technologies has seen a radical change in the way government organisations communicate with and deliver services to stakeholders. The adoption of technologies has enabled two-way communication and personalised communications to occur on a scale that has changed the meaning of ‘communities’, the accessibility of information and capacity for 1:1 dialogue, flexibility of service delivery and format for communication - allowing greater engagement of communities. This has occurred alongside the trend towards more ‘consultative’ customer-centric communications focused on building relationships with stakeholders and responding to customer feedback.

The impact of these trends has to some extent reshaped organisation design – with more flatter, flexible organisation structures forming – and new, specialist job skills needed to match changing technologies and methods of communication.

Government organisations play key roles in providing services to a range of stakeholders, advocating and consulting on issues, and developing policy that guides decision-making for communities. The way communication occurs in government organisations has been dramatically transformed and managers have an increasing role in managing innovative technologies as methods of communication and service delivery change.

The focus of this research study is to examine the impact of changing technologies on strategic communications in local government organisations and how technological innovation is altering the way government communicates with stakeholders. It also investigates the key challenges and the changing nature of government service delivery in light of innovative technologies, organisation structure and customer service delivery.

Keywords: Strategic communications, electronic technology

Knowledge Sharing Through Face-To-Face Communication And Labour Productivity: Evidence From British Workplaces

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Abstract: Managing internal knowledge effectively is regarded as crucial for organisations that wish to achieve competitive advantage. The knowledge management literature advocates the importance of adopting social networks based on face-to-face communication (FTFC), i.e. networks based on employees’ physical proximity and verbal interaction, in order to best enhance knowledge sharing among workers. The human resources management (HRM) literature indicates specific people practices whose implementation leads to better organisational performance. However, this literature has widely neglected to study empirically the link between intra-organisational knowledge sharing and workplace productivity. We attempt to fill this gap by investigating whether workplaces adopting HRM practices that enhance FTFC among employees are more productive than workplaces that do not use such arrangements. This hypothesis is tested on a sample of around 500 British trading establishments included in a dataset resulting after linking the Workplace Employment Relations Survey (WERS) 2004 and the Annual Business Inquiry (ABI). This dataset includes information on both HRM practices and value-added per employee. Overall, our findings suggest that sharing knowledge through FTFC enhances organisational productivity: we find indeed a positive statistical
association between value-added per employee and FTFC in all the social networks established through the five HRM practices considered, namely problem-solving groups, teams, meetings made up of senior managers and employees, meetings of line managers and employees, and committees of managers and employees’ representatives (specifically, this association is found for teams and problem-solving groups involving a moderate percentage of employees at the workplace). However, this result holds only provided that workplaces adopt FTFC on a continuous basis. This suggests that either knowledge needs time to be shared, understood and processed in order to produce observable gains to organisations, or that it may take time for individuals to build up the trust and empathy needed to fruitfully share their knowledge with each other.

**Keywords:** Human resources management, face-to-face communication, knowledge sharing and labour productivity.

**Knowledge Management in a Malaysia Public Sector Accounting Organization: An Integrated KM Framework**

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**Abstract:** Knowledge Management (KM) in an accounting organization in developing countries has not yet received much attention in the research literature. Therefore, this study aims to investigate how accountants as professional intellects working in a public sector accounting organization perceived the importance of KM implementation factors in their organization. The Accountant General’s Department (AGD) of Malaysia is selected for an in-depth study of KM in a public sector accounting organization. KM implementation in the AGD can take advantage the transfer and sharing process of professional intellects for the organization’s embedded intellectual capital. This paper presents the integrated KM framework that interconnects KM enablers, knowledge sharing process and organizational performance in the accounting organization. Literature reviews and previous empirical studies provide the basis for the present KM framework which integrates KM solution through learning, leadership, culture, technology and process to improve organizational performance in the public sector accounting organization.

A survey questionnaire was used as the main instrument to collect data from all accountants employed by the AGD. Through factor and multiple regression analysis, the statistical results provide strong support for the positive effects of KM enablers and knowledge sharing process as antecedents on the organizational performance. When both KM enablers and knowledge sharing process are regarded as antecedents of organizational performance, knowledge sharing process and technology resources are among those of highly significant KM enablers. Thus, a public sector accounting organization in Malaysia such as AGD has to give serious emphasis on those significant KM enablers in drawing up its future KM implementation strategy in managing and leveraging the intellectual assets of its professional intellects for the organization’s embedded intellectual capital.

**Keywords:** Knowledge management, KM framework, accountants, public sector accounting organization
Analysis of Knowledge Barriers at the Extra-Collaborative Knowledge Level in Enterprise Networks

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Abstract: Collaborative Knowledge (CK) is addressed by the process which encompasses the sense of operating jointly and voluntarily to share knowledge, especially with the aim of bidirectionally and reciprocally achieving a common goal without the persuasive power of any participating unit which takes control. This process is characterized by being greatly complex given the barriers which hinder its proper execution from an individual level, among people, to superior levels where the established cooperation relationships include different enterprise networks. CK barriers are defined as anything related to human, technological, organizational, informational and contextual perspectives that obstruct all the levels of knowledge sharing. The barriers that hinder the CK process are unknown and unstructured, a fact that is translated into misunderstanding. Therefore, our hypothesis is based on the definition of a superior level of collaboration, the so-called extra-CK level, characterized by the different networks that operate independently and collaborate on a voluntary basis to achieve mutual aims. The reason for the prefix extra- is that they evolve to inferior levels: from intra- (within) and inter- (between, among) to extra- (outside). Consequently, the main objective of this paper is to identify and categorize these general extra-CK barriers according to the definition of four barriers blocks from the human, organizational, technological, contextual and informational perspectives to gain a better understanding of them and to take the most appropriate measures to prevent the negative effects of barriers at the extra- CK level. This work is based on the development of a theoretical basis which classifies and describes the extra-CK level barriers, and whose future research aims to corroborate the need to define this superior level in CK projects in order to validate the characteristics of CK barriers in real cases, i.e., in real-world CK projects among networks.

Keywords: Collaborative knowledge, extra-collaborative knowledge level, barriers

Measuring the Value of KM Projects: Insights into Practical Issues

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Abstract: While many companies today are deeply investing in Knowledge Management (KM), they generally encounter substantial difficulties in measuring the value generated by those programmes. Actually, how KM-related costs and benefits can be effectively measured is still a puzzling problem both at the conceptual and operational level. This is due to the substantially intangible nature of such activities, as well as to their very long-term horizons. Since KM programmes are set up with the purpose to contribute to the business, trying to measure their value is absolutely necessary, not only for monitoring their effectiveness but also for successfully managing and allocating resources. An evaluation is also required to demonstrate the results achieved, which is essential to maintain the support and commitment by the top management. In literature, several KM performance evaluation methods and approaches have been proposed. However, these methods are still far from becoming an established practice. They are very heterogeneous,
and often derive from techniques formerly developed for other goals, and combined with ad hoc elements; also, they are often poor in usability.

In point of this, the paper aims at discussing such issues by placing them in a practical context. First, the literature on KM assessment is briefly reviewed, and the main methods that are currently in place are classified, with the purpose to stress their key features seen from a user perspective. Then, the practical experience of a multinational company is examined to describe the real problems that knowledge managers face in their daily experience of KM measurement, and provide insights into the possible future developments of the KM evaluation approaches.

**Keywords:** KM performance; evaluation methods; measurement; case study

### Agile and intelligent networks for Information Literacy by Knowledge Sharing

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**Abstract:** In the existing knowledge society we live in the process of information and knowledge networking is unbounded ongoing. Because of permanently prospering requirements and complexity of the market, the needs for concentrating knowledge and bundling competencies increasing, too. The reaction of these changes should be the definition of the goal to develop and expand information literacy. This goal only can be reached by designing and developing intelligent and agile network structures. The currently existing, new developing and restructuring knowledge networks in the mathematical perspective are graphs in the context of graph theory. In this context knowledge will be collected and concentrated in a knowledge network. Afterwards, the knowledge can be shared inside the own graph or transmitted into other graphs.

In this paper will be discussed how it is possible to develop intelligent and agile structures out of formal networks. These structures should reach a high level in information and knowledge quality, are able to react quickly on changing knowledge requirements, and open up new knowledge areas. In this context it is interesting to think about and analyse the parameters, influencing such intelligent structures. The ideas and chances for intelligent network structures will be united in a new developed and conceived model.

This model consists in the first level of fundamental network-functionalities, extended in the second level by compatibility logics, authentication concepts, and evaluation concepts. Thus, information and knowledge are only accessible for authorised users and otherwise they are in a high quality standard and up-to-date. In the third level are concepts to place, which are able to enhance the network dynamic totally, but also ensure the network stability and quality. For the realisation of this level the ideas of the AGIL-scheme - a system theoretical model from the 1950s - can be used. Between both, the fundamental mathematical and the systemic view on networks, analogies will be analysed. Furthermore, common rules will be filtered out and integrated into the intelligent network architecture. The current state of the concept, fundamental for developing the architecture, will be described in this paper.

**Keywords:** Information literacy; knowledge literacy; knowledge network; knowledge sharing
Putting ‘Knowledge Management 2.0’ Into Practice – The Process of Setting up a Wiki as a Knowledge Management Tool in a Public Library

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Abstract: This paper describes the process of setting up a wiki for knowledge management purposes and at the same time proposes an overall approach for organisations that want to facilitate knowledge sharing through a social software tool like a wiki.

The public library of Vlissingen (Holland) has always been concerned with creating and sharing knowledge in order to improve organisational effectiveness, both for itself as for its customers. A knowledge management audit – organised last year - was the first step in developing a knowledge management strategy. This audit revealed that the intranet as a knowledge management system was hardly used by library workers, because it lacked interactivity, the contents were often out of date et cetera.

After an evaluation of alternative knowledge management systems, it was decided to replace the intranet with an internal wiki. The term ‘wiki’ refers to both wiki sites and the software used to maintain them. Wikis can be and are used in multiple ways as conversational knowledge management systems and/or as knowledge repositories to support the goals of organisations, including libraries. Moreover, wikis offer numerous advantages: they can be easily edited so that knowledge can be captured and authored collectively, new pages can be created with ease, the content can be updated in real time, little user training is required, et cetera.

The process of setting up the wiki in our library took several months and was divided into six phases. During the first phase the workplace culture and environment were evaluated. Potential requirements and uses for the wiki were identified. Designing the wiki involved issues like technical implementation, visual design and establishing the initial content. In the test-phase, a representative group of users – so-called early adopters - were selected to run a pilot. Finally, the wiki was launched and brief training sessions were held to inform users about the wiki and to motivate them to capture and share knowledge through the wiki. In the near future, the wiki will be evaluated by means of a set of predefined critical success factors.

Keywords: Knowledge management, public libraries, wikis, knowledge management systems

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Abstract: The Dutch government commissioned the Maasland Hospital of the Orbis Medical and Treatment Group to develop the ‘Hospital of the 21st Century’. In 2006, the board of Orbis and the board of Zuyd University of Applied Sciences signed an agreement to join forces for this development. Part of this collaboration is the project Patient Centred Treatment (PCT).

The objectives of the project are to develop a mental model for PCT with core categories and subcategories, values and behavioural guidelines, and to develop learning activities that change the actual behaviour and knowledge flows of medical professionals at their workplace.

The practice based research design is based on the naturalistic/constructivistic research methodology, with elements of grounded theory. The key characteristic of this design research is to explore and evaluate the implicit knowledge in the organization by means of iterative dialogues among professionals and between professionals and researchers. Within this process of co-creation among up to 200 participants, consensus based ‘best practices’ are developed. This practice based research approach organically runs into action learning activities that serve to anchor PCT at the workplace.

As a result, consensus based core categories and subcategories of PTC (patient, guest, person; cognition, emotion, self-esteem) have been developed, consensus based values and behavioural guidelines derived form the core categories and subcategories have been described, and training activities and action learning activities for PCT have been introduced at the workplace.

In terms of learning as a result of the project, the individual professionals, the teams of professionals and the organization is developing into a learning organization.

Keywords: Patient centred treatment, client centred care, practice based research, action learning, learning organization

Social Networking and the Transfer of Knowledge

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Abstract: For the purpose of this paper, supply chain management is the process of planning, implementing, and controlling the operations as efficiently as possible within the sales and marketing environment. The supply chain spans the tracking of all transactions from the identification of prospective customers; through quote to order conversion; fulfilment; and on to post sales support. As an intense human activity customer supply chains are wholly dependent on knowledge and require social network activity to transfer that knowledge to the point of need in order to reduce process variation.
This paper builds upon work undertaken previously by the author, which developed an organisational model of the social interactions affecting knowledge transfer within organisations (Smith et al 2003). This paper also discusses the problems of knowledge location, the ability to share (as well as willingness); the prevention of knowledge attrition through a programme of knowledge definition (codification); knowledge retention; and knowledge transfer across the customer interface.

The argument is made that whilst much information is being shared, the knowledge that makes such information useful must also be transferred or new desired outcomes will not emerge. In order to share such knowledge, lessons were learned from three major studies that were carried out in 2004, 2006 and 2007; to determine the extent of failure to transfer knowledge within the sales and marketing supply chain at Ordnance Survey.

As a result of these studies, a programme of work was put in place to identify knowledge silos, acting as centres of excellence in the supply chain putting in place a project to preserve and transfer knowledge from these silos, to facilitate learning and reduce knowledge attrition.

This paper focuses on empirical evidence from these studies and the impact that this knowledge management project has had on the efficacy of the supply chain to deliver the desired outcomes.

**Keywords:** Knowledge Management, Knowledge Transfer, Business Process Management, Communication, Social Architecture

**The Creative Economy - Challenges and Opportunities for Romania; Attitudes of Romanian Youngsters Towards Creativity**

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**Abstract:** The general objective of the paper is the scientific foundation of the necessity to implement the model of the creative economy in Romania. In this respect, the paper is aimed at describing the attitudes young Romanians have towards creativity in general and the creative industries in particular. The target of the present study is represented by young people because it is first and foremost young people who are more knowledgeable about the creative industries and are kept abreast with the most recent discoveries, developments and advancements in the field. Taking after the British classification model of the creative industries in an attempt to implement the concept in the Romanian economy as well, this study is meant to be a first step in acknowledging this issue on a scientific basis. Moreover, the purpose of this paper is to quantify, to some extent, the openness of our society for the new fields of activity comprised by the creative industries. This study offers perspectives for future research, diverting the focus from the population as a way of evaluating attitudes towards the business environment in search of evaluating the behaviour of companies in this sector.

The methodology suggested within this paper basically consists in: a broad documentation in the literature using international databases; a collection of primary data: interviews and questionnaires; secondary data collection at the National Institute for Statistics, the
Ministry of Education, Research and Youth; realistic analysis and interpretation of primary and secondary data: quantitative and qualitative analysis such as causality relation establishment; correlations etc.

The paper highlights the importance of the topic for Romania, a catching up country according to the last Report of Innovation Scoreboard in the European Union. The paper also suggests that in Romania there is a need to set forward a more complex framework for analysis and advanced research. The paper considers some aspects concerning the implementation of the creative economy and creative industries in Romania.

The paper concludes that in Romania there is a strong need for an original, multi, trans and interdisciplinary area dedicated to the creative economy, meant to integrate in a complex holistic approach the most recent research.

Keywords: Creative economy, creative industries, cultural industries, attitudes

Overload of Information or Lack of High Value Information: Lessons Learnt from Construction

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Abstract: Information and knowledge are strategic assets, processed to attain objectives, perform actions and make decisions. However, technological innovations can change the format of information and often result in more complicated project information or knowledge management tools whilst this can provide information to an individual more easily and quickly. Current systems have little or no regard for the value of the information they contain. As projects draw to a close, some organisations are now asking what information is worth retaining and how might it be reused. This paper addresses the problems of information overload and value in the construction industry. Exploratory studies compared two major consultants in the UK from three perspectives (business, project management and document management). Major challenges in the current information evaluation practice in the industry were identified. Information overload does exist in the industry and is getting worse because of the heavy but often inappropriate use of search and collaborative technologies. Loss of high value information due to staff leaving is a major problem, but the companies are reluctant to evaluate recorded information (before or after storage) for future retrieval. From the strategic point of view, there is a lack of information evaluation tools that quantify the benefits and costs of performing information evaluation activities and the effects on storage. Based on these findings, a through-life Information Evaluation Methodology (IEM) has been proposed to allow high value information to be easily retrievable in the future in order to support through-life knowledge and information management (K&IM) practice.

Keywords: Construction, information evaluation, information management, knowledge management, value of information
The Application of Online Action Learning to Leadership Development: A Case Study

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Abstract: This paper describes a qualitative case study involving the formation of a number of facilitated action learning groups each comprising six teachers from different services in the New Zealand early childhood education sector. Action learning is a process that involves small groups or sets of learners working on issues or problems that they face in their professional contexts with the support of a facilitator. Although action learning sets most often meet face-to-face, ICT is increasingly being used to support or in some cases replace traditional set meetings. The participants in this study both meet face-to-face in facilitated workshops and interact online while back at their respective workplaces for ongoing reflection, discussion and the sharing of knowledge and resources. The open source software MOODLE is the enabling technology used in this study and the ICTs used include email, online reflective journals, forum discussions including online action learning forums, and chat sessions. The groups use an action learning process to learn about themselves as leaders and to work collaboratively on issues and challenges related to their leadership roles. Preliminary data from this study suggests that online action learning groups are a very effective model for use in leadership development. Some of the benefits of this model are that it: allows for an intensive professional learning experience while not requiring a large amount of scheduled meeting time; encourages both individual and shared reflection; supports participants to identify and take action on issues that they face in their everyday work; and builds communities of practice through the sharing of knowledge and the building of strong networks.

This paper will also present an emerging model of online action learning which is based on the Community of Inquiry model (Garrison, Anderson & Archer 2000). The emerging model represents how the cognitive presence cycle of identifying, reflecting, deciding and acting is facilitated within the context of online action learning groups. The processes of sharing, supporting and questioning are conditions that allow the process of leadership learning to occur. Group members share experiences both personal and professional, provide support for each other and also challenge each other through the reflective questioning process. The facilitator also provides support and challenge and acts a role model for the action learning process.

Keywords: Knowledge sharing, online action learning, leadership development, community of inquiry
A Critical Review of Knowledge Management Literature: Introducing a Practice-Based Approach on Knowledge Sharing

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Abstract: The processes that facilitate the creation, sharing, and use of individual and collective knowledge have gained increased attention in the literature. The attention to these phenomena among both practitioners and scholars has lead to the development of the concept of knowledge management. Though research on knowledge management per se has become increasingly popular in recent years, it has not yet been able to establish itself as a separate discipline. In fact, there are several different discussions studying these phenomena, situated in different disciplines and not all recognized by the knowledge management community.

One discussion that has not been fully recognized is the practice-based approach to organizational knowledge. Different fields of organizational studies have brought forward work practices and their role in organizational processes. There is a growing interest in theories of organizational practice, and it has been suggested that organizational research should study actual work practices in their natural context. Adopting a view of knowledge as dynamic and developing knowing enables us to study how shared learning is located in complex, collective practices and how new ways of knowing can emerge in communities.

In this paper we suggest that different perspectives on knowledge-related phenomena should not be treated as either-or -choices, but as different discourses that can all contribute to our understanding. We believe that these different views should be taken more into account in the research that is conducted within the knowledge management community. Accordingly, we propose that the field of knowledge management should draw on a broader base of organizational studies literature, and embrace a practice-based approach to study these phenomena. We will conduct a literature review on the specific phenomenon of knowledge sharing in order to show how the practice-based approach is not yet taken into account in the current knowledge management research, and how it could be used to enhance our understanding of the phenomenon. Concentrating on work practices that can be both interactive and technology-mediated could also be used to integrate the prevailing, technology- and human-based approaches.

Keywords: Knowledge management, knowledge sharing, knowledge, practice-based approaches, literature review
On the Way Towards a European Atlas on Knowledge and Intellectual Capital

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Abstract: The paper is based upon the assumption that there are interactions between knowledge, economic growth and social well-being. Therefore, it is extremely important to define and describe the market of knowledge and Intellectual Capital in a company, in a country and across Europe for both policy and managerial reasons. Traditionally, such analysis is characterized by an accountancy perspective. As this does not reflect the modern role of knowledge and IC as economic resource with deep social impacts, a new and bold methodological approach is required. The paper presents such approach aiming to provide a new original insight on knowledge and IC at European level. This is based on investigating knowledge and IC using a set of basic economic variables: supply, demand, equilibrium, needs, stock, investment, flow, and returns. After introducing the methodological basis in comparison to the traditional approach for analysing knowledge and IC, we specify the main data and derive meaningful indicators on the situation of knowledge and IC from official sources of information at macroeconomic level and from a sectorial impact study at microeconomic level. From the outcomes achieved so far, we are able to conclude that there are very different situations regarding IC at European level, and that policy makers, managers, and citizens (as members of the civil society and as voters) should take note of them and act upon them. The results are composed to a first version of a European Atlas on Knowledge and IC. Critical reflection of the current achievements leads to clear suggestions on further research and a specification of next steps for implementing such atlas in form of a web-based service and infrastructure. Here, the most interesting challenge consists not just in drawing links from the company (sector) perspective to a national and European view in terms of a descriptive approach, but in introducing and supporting a pro-active view by enabling to transfer political decisions concerning knowledge and IC at European and national levels into initiating and running purposeful knowledge-related activities inside a company.

Keywords: Intellectual capital, knowledge, public policy, companies, benchmarking

The Relevance of Infocom Technologies on Knowledge Management in the Public Sector: The Hungarian Case

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Abstract: Information technologies play a key role in achieving productivity, efficiency, innovation, effectiveness and value in knowledge management. Organizations need knowledge of many facets of their business. The fast-changing and even complex information climate has created a situation, where large organizations have to keep up with the evolution of ICT.

What does knowledge management need from infocom technologies? The answer is to reduce manual labor to collect, organize, bundle, transmit and disseminate information and
knowledge on an extended, fastened way. Information must be filtered, analyzed, validated and fused with contextually related sources.

A well developed and infocom supported knowledge management system is essential both in business and public sector. In spite of increasing financial contribution of the state, the degree of ICT supply in public sector has been significantly underrepresented. The lack of capital and the infocom infrastructure make the everyday operation more difficult.

In our paper we present a general survey about infocom and knowledge management situation of the Hungarian local government bodies. In summer of 2007 we made an entire survey in Baranya county (Southern Transdanubia – Hungary) on ICT supply and knowledge management applications of the local governments. We analyzed the weaknesses and threats as well as the strengths and opportunities of the local development ICT and knowledge management strategies. In our conclusion we present suggestions about the most cost effective infocom and knowledge management solutions tried out in other regions and countries.

Keywords: Public sector needs, degree of ICT supply, Infocom supported KM

Organizing Practices in Project-based Organizations through “Double-knit” Structures: the Case History of “Practice Groups” in a Consulting Firm

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Abstract: Project-based organizations have received increasing attention in recent years as an emerging organizational form to integrate diverse and specialized intellectual resources and expertise. A typical problem of these structures is the difficulty in sharing knowledge in and across projects. Besides, project teams are temporary and therefore much learning may be lost when they disband. Very often the storage of lessons learned is not effective; the databases are not widely used and the people are too engaged in their projects to share knowledge or help other people cope with similar problems. The processes of knowledge capture, transfer and learning in project settings rely heavily upon social patterns and processes. This situation emphasizes the value of considering a community-based approach to managing knowledge.

McDermott (1999) proposes to add a new “dimension” related to Communities of Practice (CoPs) to the project-based organization. In the “double-knit organizations” (DKO) project teams (focused on their strengths: outputs, processes or market segments) and CoPs (focused on learning) coexist. The aim of the paper is to investigate the critical points in designing and implementing a DKO (e.g. group design, reward system, participation modes, support mechanisms, formalization degree) that are difficult to manage and little investigated in the literature.

We conducted an in depth case study research of an Italian IT Consulting firm: VP-Tech. This analyzed firm introduced a particular kind of CoPs called “Practice Groups” (PG) in a typical project-based organizational structure. The Practices are knowledge domains (expertises) transversal to the projects or market areas. VP senior executives chose the main strategic practices to be developed and decided to aggregate the main internal experts (PG) around these knowledge domains. The goals of PGs are to strengthen and
Harmonizing: An Interpretative Category to Understand the Processes of Creation and Sharing of Knowledge in an Organizational Context

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Abstract: Every organized working context is based on a system of practices-in-action. Practicing the actors produce everyday knowledge. These processes of creation and sharing of knowledge live and grow in a composite repertory of “habitual way” to do things. The crucial point of all the debate about practice is located in the search of a possible interpretation of the elements that push the actors to practice in a potentially stable way in time. To give a possible interpretation of the process of “knowing-in-action”, the concept of harmonizing could represent a perspective of meditation and debate. Every job is made by passages and subdivisions of charges of duties. To work means also to subdivide in the personal agenda the charges of work. This subdivision is not taken for granted but it is the result of a complex mechanism composed by practice valuations. Similarly to the music, in working life people follow a rhythm, a way. The job flows on the score, the agenda of the worker completes itself through the division of tasks. The harmonization makes the work not too unpleasant, it subdivides and scans in the time the incumbencies. The grave sonorities harmonize themselves with the high ones, hard works harmonize themselves with less difficult tasks. A job takes life in the harmonization of different practices of a practitioner. Harmonizing the working day develops itself in the synthesis of different situated practices and in the continuous production of knowledge. The term “harmony” derives directly from the Greek and indicates a concordant link among elements. To harmonize means to synthesize the different parts in proportion and to make them pleasant in their apposition. The harmony is an accordance among different “voices”. This harmonization is not something individual, but it is built in the sociality. In the organizational working contexts to harmonize means to accord your own job with the others ones. Like an orchestra that plays a waltz, every practitioner harmonizes her/his music with the others. Music and work are not individual fields of activities but they are built in the relationship with other practitioners. Playing together, the workers build themselves the daily activities; in the relationship, in the collaboration, every practitioner orients the activities of the others ones. The concept of harmonization could be considered as a useful interpretative category to understand the processes of creation and sharing of knowledge in an organizational context. This paper has the intent to reflect about the theoretical valence of the harmonizing concept, developing a critc parallel with other interpretative typologies already developed in the academic literature. This concept presupposes a dynamicity of doing-in-action, it is opposed to the “staticity” of the relationships among actors. In conclusion, in the light of this abstract, this theoretical paper wants to reflect about the harmonizing concept as an interpretative category of creation.
and sharing of knowledge. Developing a parallel with the music, this paper wants to demonstrate the heuristic potential of this concept to understand and to study an organizational context.

**Keywords:** Harmonizing, meaning of knowledge, workflow, situated learning, organizational learning, sharing mechanisms

### Storytelling – A Method to Start Knowledge Transfer in Offshore Software Development Teams – Research in Progress Paper

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**Abstract:** Over the past few years IT offshoring has become one of the most important corporate strategies in the software industry and is facing a diversity of challenges. One of them is the efficient transfer of knowledge between two companies, separated significantly in terms of time zone, geographical and cultural distance. Cultural aspects hence represent one of the most critical elements. While considering the software development process, requirements engineering is one of the most critical steps and implies an immense communication effort. When now the cross-cultural layer is added it seems to be a hardly solvable task. However, actual research on this section of knowledge transfer within offshore software development under cross-cultural settings is still limited. This is a research in progress paper using a qualitative research setting carried out with an explanatory case study involving the software requirements specification (SRS) as the knowledge to be transferred between IT companies in Germany and India. The basis of this paper is that, for the start of successful transfer of knowledge we suggest the storytelling methodology as a suitable tool to overcome these difficulties. Thus we are asking, how storytelling affects the inception of knowledge transfer in offshore software development projects.

**Keywords:** Knowledge transfer, storytelling, off shoring, cultural differences, software Requirements specification (SRS)

### Barriers of Knowledge Sharing in Chinese Subsidiaries: from Social-Cultural Aspects

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**Abstract:** The purpose of this paper is to address the barriers that impact knowledge sharing in Chinese subsidiaries from cultural and social aspects for western managers, and try to help the western managers work better with the national compositions to optimize knowledge sharing in their subsidiaries in China. The author reviewed relevant literatures and summarized most dominant issues from Asian’s perspective. From academic aspect; this paper makes a distinct summary to the available body of research on how cultural and social factors influence knowledge sharing from multinational company (MNC) parent to Chinese subsidiary from Asian perspective. And this paper
emphasized the complexity of Chinese culture for the first time: Chinese culture needs to be understood more broadly besides Confucianism. For practitioner, western managers could understand motivation and barriers of knowledge sharing in the Chinese context much better.

**Keywords**: Knowledge sharing, culture, Confucianism, Chinese subsidiary

**The Determinants of Inter-Firm Knowledge Transfer in Strategic Alliances: A Conceptual Framework**

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**Abstract**: Strategic alliances have become an increasingly pervasive part of the globalization progress. The reasons for a company getting involving in a strategic alliance are various. Irrespective of objectives of the strategic alliance, knowledge will be transferred either consciously or unconsciously. As knowledge has become one of most critical factors which can decide a corporation’s competitive advantages, the question as to which factors facilitate or hinder the outcome of inter-firm knowledge transfer is very important in the strategic alliances literature. A number of studies have focused at the individual firm level. However, unlike the situation of one single firm, strategic alliances relate to at least two counterparts. This context means the consideration from the inter-firm level should not be neglected. This paper incorporates this point into the traditional firm learning literature and constructs a conceptual framework regarding the determinants for inter-firm knowledge transfer in strategic alliances. There are four categories in the framework: nature of knowledge, incentive orientation, learning capability, and inter-firm interaction.

**Keywords**: Knowledge transfer, strategic alliances

**Dear Diary: Recommendations for Researching Knowledge Transfer of the Complex**

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**Abstract**: A rich-picture can unfold itself to the researcher who engages management practitioners as research participants in the task of qualitative, open-ended diary-writing while also ‘feeding’ the participant with reading material to consider and reflect on in the diary itself. The particular work referred to in this paper is the result of a three year long research project, from 2002-2005, where 13 research participants were, in such a vein, asked to write a weekly work-based diary over the course of a year – a goal which some met and others did not. The 3 year study sought to find out how individual managers demonstrated making sense and learning using complexity science principles in work-focussed diaries. A key insight derived offers a way forward for future research on the topic of knowledge transfer of the complex by means of diaries as a qualitative research data collection tool in conjunction with ongoing, qualitatively rich interactions between researcher and research participant.

The use of diaries by researchers shows their versatility as a research tool. Diaries have been used by researchers in the evaluation and interpretation of the practice of teaching,
training and learning, in the study of meaning and emotions over time, in investigations into workers’ and management’s responses to change and uncertainty, to conduct research into personal relationships, in addition to the subject of personal identity and life transition, health, and the study of diaries themselves. The domain of complexity science provides thought-provoking material that both challenges and complements perspectives of day-to-day work, thinking, and life. The ways in which people contextualise complexity science principles and other complexity science material in their work differs from case to case. While the extant literature conveyed value in making sense of experiences in working life with complexity science, there was a lack of grass-roots practical evidence from the field provided in the literature. The use of the diary as a research tool was considered invaluable in the study undertaken and insights suggest the value of the diary in researching knowledge transfer of the complex in general. The underpinning literature, the method followed, highlights of the findings, and an overview of conclusions and implications for practice and future research are provided.

**Keywords:** qualitative diaries; knowledge transfer; complexity; research

**The Challenge of Implementing Knowledge Management Strategy in a Public Sector Organization: Evaluating the Balanced Score Card as a Useful Tool**

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**Abstract:** The development of Knowledge Management theory in recent years has been largely dominated by disputes over what outcomes organizations might expect to achieve. There has also been some controversy as to the extent to which a business case can be made for adopting Knowledge Management strategies in public sector and non-profit organizations. However, it has become clear that different situations require different knowledge management strategies. The background to this paper is an empirical study by one of the authors into potential use of the Balanced Score Card as a vehicle to facilitate strategic Knowledge Management in a public sector company in Saudi Arabia.

**Keywords:** Balanced Score Card; Saudi Arabia; Public Sector; Strategic Knowledge Management

**Measuring the Intellectual Capital of Individuals: A Key Personal Competency Measurement Framework (KPCMF)**

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**Abstract:** Current literature and empirical evidence highlights the growth of methods and frameworks used to measure Intellectual Capital (IC) at organisational levels but the IC of the individual, and the ability of the individual to create and exploit knowledge is often ignored. This paper contributes to this body of work, through the development of a Key Personal Competency Measurement Framework (KPCMF) that can measure, manage and inform the development of an individuals IC. The paper presents a view of IC emanating from a myriad of activities at lower levels of the organisational structure where careful
development of these atomistic components is required for IC to grow and become a significant asset to the individual and organisation.

The research was undertaken as an IS professional bringing a comparative perspective informed by experience; a role consistent with that of the social theorist. Content analysis was used to identify and define Key Personal Competencies (KPC’s) whilst a survey of IS executives provided external validation. In its first application the KPCMF is applied to the Information Systems Development profession where increasing complexity and criticality of information systems, combined with the growing number of tools and methods, are causing the IS profession to question which competencies are needed to work effectively.

This research aligns other researcher’s findings in similar ways: The non-financial Balanced Scorecard perspectives and three types of IC (Human, Structural and Relationship) to provide a complementary means of categorising Key Personal Competencies; the value of job market knowledge informing professional development; and the acquisition of new relationship skills. This paper illustrates that a generic model is possible to measure IC, contrary to the views of Shulver et al (2000), but its value, relevance and ownership is only released by aligning it to the context in which it will be used.

**Keywords:** Intellectual capital, key personal competencies

**Problem-Oriented Knowledge Management – Towards a Pattern-based Implementation Approach for KM in SME**

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**Abstract:** Issues of knowledge management (KM) in small and medium-sized enterprises (SME) have long been underrepresented in KM research, in particular with regard to approaches which take the peculiarities of SME in KM into consideration. In order to close this gap and to foster KM adoption among SME this paper proposes a problem-oriented amendment to implementation approaches for SME. The preparatory work for this amendment comprised the formulation of requirements for such an approach and the collection of recurring problems SME are confronted with in dealing with knowledge. The results of the preparatory work are presented in the paper. Proceeding from this the constituents of the amendment – consisting of a structured description of the problems and appropriate solutions in form of patterns – are developed. The amendment is illustrated by an example and discussed using the elaborated requirements.

**Keywords:** Problem orientation, KM approach, patterns, SME
Communication and Coalition: Rethinking Neocapitalist Definitions of KM

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Abstract: Developments in the theory of Knowledge Management have occurred in lock step with our understanding of the importance of capital and in particular the intangible elements of social capital of which ‘knowledge’ and its production and reception are normally associated. Further elaboration of the concept of social capital has led to the development of neocapital, which has gained currency within the field of Human Resources for example. However, an examination of the factors that constitute the received definition of ‘neocapital’ suggests that the theory building used to construct it has been in reaction to developments in other disciplines, rather than any fundamental unified theory that underpins these factors.

Building on Scandinavian and European research into information systems using perspectives gained from the Organisational Semiotics (OS), Language Action Perspective (LAP), and Action Language Organisations and Information Systems (ALOIS) communities, we demonstrate how the adoption of communication-centric theory can provide a more unified approach to understanding the factors that comprise neocapital especially as it pertains to knowledge management definitions in organisational settings. Rethinking neocapital from a communication-theory perspective enables us to examine the structural, functional and semantic characteristics of community and coalition. We utilise a socio-semantic, contextual and functional model of language that has been gainfully employed within the information systems discipline to research organisations and apply it to theorise community and coalitions and their associated knowledge resources and processes. We focus our discussion on defining and exemplifying one set of communication resources known as the reference system.

The reference system comprises the language resources social agents use to introduce and subsequent refer to different kinds of participants in communication (people, places and things) relevant to given situational and cultural contents. By selecting relevant completed acts of communication and analysing them for reference resources we can identify and describe the people, places and things that distinguish social groups and coalitions from one or another. By demonstrating how knowledge about communication enables us to identify communities and coalitions over time, we also demonstrate how communication constitutes knowledge within communities and coalitions.

Keywords: Communication, Reference System, Coalition, Neocapital, Knowledge Management