Abstracts of the Papers Presented at the 12th International Conference on Intellectual Capital Knowledge Management & Organisational Learning

ICICKM 2015

The Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) of Bangkok University Bangkok Thailand

5-6 November 2015

Papers submitted to this conference have been double-blind peer reviewed before final acceptance to the conference. Initially, paper abstracts were read and selected by the conference panel for submission as possible papers for the conference. Many thanks to the reviewers who helped ensure the quality of the full papers.

This Booklet of abstracts and other conference materials is provided to conference participants for use at the conference.

Conference Proceedings

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The Electronic version of the Conference Proceedings is available to download from DROPBOX. (http://tinyurl.com/ICICKM2015) Select Download and then Direct Download to access the Pdf file. Free download is available for conference participants for a period of 2 weeks after the conference.

The Conference Proceedings for this year and previous years can be purchased from http://academic-bookshop.com

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Preface

These proceedings represent the work of researchers participating in the 12th International Conference on Intellectual Capital, Knowledge Management & Organisational Learning – ICICKM 2015, which this year is being held at The Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) of Bangkok University, Bangkok, Thailand on the 5-6 November 2015.

The Conference Chair is Dr. Vincent Ribière and the Programme chair is Dr. Lugkana Worasinchai, both from The Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) at Bangkok University, Thailand.

The conference will be opened with a keynote by Dr Alex Bennet, Co Founder and Principle of the Mountain Quest Institute (MQI), USA and Professor at Bangkok University, Thailand, on the topic of "*The Knowledge of You*". And the second day is opened by a keynote from Gordon McConnachie, Director and Chief Technology Officer at Asia Pacific IC Centre, Hong Kong SAR, China. Gordon will address the topic of "*Technology Transfer a Driver of Innovation: Addressing Market Failure Using an IC Approach*".

The ICICKM Conference constitutes a valuable platform for individuals to present their research findings, display their work in progress and discuss conceptual advances in many different branches of intellectual capital, knowledge management and organisational learning. At the same time, it provides an important opportunity for members of the IC, KM and OL communities to come together with peers, share knowledge and exchange ideas. ICICKM has evolved and developed over the last decade, and the range of papers accepted in this year's conference ensures an interesting two-day event.

Following an initial submission of 120 abstracts, after the double blind peer review process, 39 Research papers, 11 PhD Research papers, 1 work-in-progress paper and 1 non-academic paper are published in the ICICKM 2015 Conference Proceedings. These papers represent work from Australia, Austria, Brunei, China, Colombia, Country, Czech Republic, Finland, France, Germany, Hong Kong, India, Indonesia, Italy, Kazakhstan, Kenya, Kingdom of Bahrain, Kuala Lumpur, Malaysia, North Cyprus, Norway, Romania, Selangor, Malaysia, Slovakia, South Africa, Sweden, Switzerland, Thailand, UK, USA.
We hope that you have an enjoyable conference.
Vincent Ribière and Lugkana Worasinchai
November 2015

Conference Committee

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Dr. Prof. Bob Barrett, American Public University, USA
Dr. Artie W. Ng, School of Professional Education & Executive Development, The Hong Kong Polytechnic University, China

Conference Committee
The conference programme committee consists of key people in the intellectual capital, knowledge management and organisational learning communities; the list includes leading academics, researchers, and practitioners from around the world. The following people have confirmed their participation:

Mohd Helmy Abd Wahab (Universiti Tun Hussein Onn Malaysia, Batu Pahat, Malaysia); Leon Abdillah (Bina Darma University, INDONESIA); Prof. Marie-Hélène Abel (Compiegne University of Technology, France); Prof. Maria-Madela Abrudan (University of Oradea, Faculty of Economics, Romania); Dr. Bulent Acma (Anadolu University, Eskisehir, Turkey); Mary Adams (smarter-companies, Boston, USA); Faisal Ahmed (FORE School of Management, New Delhi, , India); Dr. Joao Pedro Albino (UNESP, , Brazil); Mulhim Al-Doori (American University in Dubai, United Arab Emirates); Dr. Alex Alexandropoulos (American University in Dubai, United Arab Emirates); Verna Allee (ValueNet Works, USA); Prof. Mohammed Allehaibi (Umm Alqura University, Makkah, Saudi Arabia); Dr. Luis Alvarado (Universidad Catolica del Norte , Chile); Dr. Prof. Xiaomi An (Renmin University of China, China); Dr. Gil Ad Ariely (School of Government, Interdisciplinary Center Herzliya, Israel); Dr. Fátima Armas (CISUC, Coimbra University , Portugal); Dr. Yousif Asfour (American University of Beirut , Lebanon); Dr. Derek Asoh ("Ministry of Government Services, Ontario, Canada); Bijan Azad (AUB school of Business, Lebanon); Mahjabin Banu (Jayoti Vidyapeeth Women's University, India); Prof. Michael Banutu-Gomez (Rowan University, USA); Dr. Neeta Baporikar (Harold Pupkewitz Graduate School of Business (HP-GSB), Namibia); Dr. Bob Barrett (American Public University, USA); Dr. Tomas Gabriel Bas (University of Talca , Chile); Dr. Belghis Bavarsad (Shahid chamran University, Ahvaz, Iran); Abdullah Bayat (University of the Western Cape, Bellville, South Africa); Prof. Dr. Aurilla Bechina Arnzten

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Biographies

Conference Chair

Dr. Vincent M. Ribière is Managing Director and co-founder of the Institute for Knowledge and Innovation Southeast Asia (IKI-SEA) hosted by Bangkok University. He is an Associate Professor at Bangkok University's Graduate/Business School, where he teaches on a variety of business topics, including: Knowledge Management, IT, Managing for Creativity, Innovation and Organizational Development; and Research Design and Methodology. As a consultant he has worked with a number of International organizations. He is founder and Animator of the iklub (the Innovation and Knowledge Management Club) in Thailand and the founder and organizer of Creative Bangkok Week. He is the co-founder and the Program Director of the PhD program in Knowledge and Innovation Management (KIM) and the Founder and Co-Program Director of the newly created Master in Business Innovation (MBI).

Programme Chair

Lugkana Worasinchai is the Director of the Institute of Research Promotion and Innovation Development (IRID), Bangkok University. In addition, Lugkana Worasinchai is the Co-Founder and Co-Managing Director of the Institute for Knowledge and Innovation South-East Asia (IKI-SEA), Bangkok University. She teaches undergraduate and graduate courses in Business Administration, and is actively involved in research on the relationship between knowledge management and business strategies. Lugkana is a published scholar, her articles appearing in major academic journals, she gives seminars to firms and public sector organizations, and is regularly invited as a guest lecturer by reputable international universities.

Keynote Speakers

Dr Alex Bennet is a Professor at The Institute for Knowledge and Innovation Management, Bangkok University and a Lecturer at Erasmus University's Rotterdam Management School. She is the former Chief Knowledge Officer and Deputy Chief Information Officer for Enterprise Integration of the U.S. Department of the Navy, simultaneously serving as internal consultant for the U.S. government and Co-Chair of the Federal Knowledge Management Working Group. Dr. Bennet is Co-Founder/Director of the Mountain Quest Institute located in the Allegheny Mountains of West Virginia focused on achieving growth and understanding through quests for knowledge, consciousness and meaning. She has authored many papers and co-authored a number of books with her partner Dr. David Bennet. Alex believes in the multidimensionality and interconnectedness of humanity as we move out of infancy into full consciousness.

Gordon McConnachie is Director and Chief Technology Officer at Asia Pacific IC Centre, Hong Kong SAR, China. He specializes as a mentor and counsellor in innovation and technology transfer, and in the deployment of soft technology. He graduated with B.Sc. and Ph.D. degrees in chemistry from The University of Aberdeen, UK and has 25 years industry experience in manufacturing industry

Mini-track Chairs

Dr. Bob Barrett was born in Hagerstown, Maryland, USA in 1962. He has an Ed.D. in the field of Human Resource Development from The George Washington University in Washington, DC. He has been teaching online for the past fifteen years, as well as being a teacher trainers and course developer. His research interests include online learning, disability, teacher training, knowledge management, and intellectual capital. He has spoken extensively in Europe, South America, and Asia on online learning, knowledge management, and intellectual capital. Also, he has written for several international publications, as well as served as reviewer for several international publications.

Dr. Artie W. Ng is currently Principal Lecturer and Deputy Director with School of Professional Education & Executive Development at The Hong Kong Polytechnic University. With an interdisciplinary research interest, he has published with refereed international journals, including International Entrepreneurship and Management Journal, International Journal of Health Care Quality Assurance, International Journal of Intelligent Enterprises, International Journal of Learning and Intellectual Capital, Journal for Global Business Advancement, Journal of Intellectual Capital, Journal of Sustainable Finance and Investment, Journal of Technology Management in China, Renewable and Sustainable Energy Reviews as well as Thunderbird International Business Review.

Dr. Manasi Shukla, MBA, PhD in knowledge management and innovation (Delhi University) is interested in the quality management of the operational stage of an outsourced project. She worked as ERP consultant with Oracle Corp and Wipro Ltd. Her experience as a researcher in Singapore (Nanyang Business School, HCL BPO technologies) has helped her have national and international publications. She is presently an Asst. Professor and Associate Editor iKNOW with IKI-SEA, Bangkok University, Thailand.

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Xiaomi An is a professor of records and knowledge management at School of Information Resources Management, Renmin University of China (RUC). She is leader of Knowledge Management Team at Key Laboratory of Data Engineering and Knowledge Engineering (DEKE), Ministry of Education (MOE) at RUC and leader of International Research Front of Electronic Records Management Team at Electronic Records Management Research Center, RUC. She obtained a PhD degree in 2001 from University of Liverpool, UK.

Geeta Albert, who is currently undergoing her PhD in knowledge management, has an MBA from the University of Strathclyde, UK. She is the founder of Knowledge Connections Inc., an organization that focusses on cultivating communities of practice in organizations.

Jim Andersén is currently employed as an Associate Professor at the University of Skövde, Sweden. His research focuses on strategic management and entrepreneurship; in particular, resource-based theory and entrepreneurial orientation. He has published several articles and his most recent publication was published in the International Journal of Management Reviews.

Vanessa Bachmaier holds a master´s degree in innovation and management in tourism. She is a PhD student at the University of Innsbruck, Austria, in the department of strategic management, marketing and tourism. Her research interests include knowledge management, information systems and tourism. More specifically, her work examines tacit knowledge externalisation over social intranets in the hospitality industry.

Wenlin Bai is a postdoctoral of Business School of Nankai University of China. She has worked in Knowledge management, collaborative innovation mechanism, government information resources management and personal information protection.

Len Barnett has been involved in intercultural management and communication, corporate and university training, education and research in the Asia Pacific for more than thirty years. He has an international educational and research reputation in management and intercultural communication. His broad experience includes business and local government management, national disaster recovery and intercultural training and communication.

Razvan Bogdan received his BSc (2006) and PhD (2009) in Computer Science from "Politehnica" University of Timisoara. After working in the automotive industry, now he is a Senior Lecturer in the Computer and Software Engineering Department of the same university. Research interests include social network analysis, embedded systems and system testing.

Ettore Bolisani is Associate Professor at the University of Padua. He was Research Associate at Manchester University, visiting scholar at Coventry University, visiting lecturer at Kaunas Technological University. He has authored papers on communities of practice, knowledge protection, KIBS, knowledge measurement. He is president of the International Association for Knowledge Management, and co-editor (with

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Britta Bolzern-Konrad is PhD student at the University of Latvia and works as associated lecturer at the University of Applied Sciences in Rosenheim, Germany. Her fields of research are strategy, competences, trust, and process management. She looks back on 18 years' experience in leading positions in industry with key aspects in quality assurance, sales, strategy and plant management.

Cristian Chiru received his BSc (2011) and MSc (2013) in Computer Science from "Politehnica" University of Timisoara. In the present he is a Phd Student in the Computer and Software Engineering Department of the same university. His current research interests cross over domains like: complex networks, automotive and embedded systems.

Souad Demigha is a Doctor in Computer Science from the University of Paris1 Sorbonne (Paris). She is a researcher at CRI (Centre de Recherche en Informatique) at the Sorbonne University and Lecturer at the University of Paris XI (Orsay). Her research fields deal with information systems, medical imaging, elearning systems, artificial intelligence (case-based reasoning), knowledge-based systems, knowledge management, ontologies and data warehousing systems.

Mirko Dohnal is a professor at Brno University of Technology, Czech Republic. His areas of interest are: Applied artificial intelligence, namely qualitative reasoning, fuzzy and rough sets, chaos theory. Different aspects of economy and ecology are targets of his main research interests.

Rose Gathii is a University Lecturer currently employed at KCA University, Nairobi. She is also pursuing PhD studies at the University of Nairobi, Kenya. Her main areas of interest are Human Resource Management and Knowledge Management. She is married with two children.

Thomas Grisold is a research and teaching assistant for knowledge-based management and information systems at the Vienna University of Economics and Business. He is currently doing his PhD. Interested in interdisciplinary research on knowledge creation; Thomas considers implications from neuroscience, philosophy and psychology.

Sunarti Binti Halid is with the Faculty of Accountancy, Universiti Teknologi MARA (Perak), Malaysia and teaches financial reporting, business ethics and management

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Hazlina Hassan is a lecturer at the Faculty of Accountancy, Universiti Teknologi MARA (UiTM), Selangor, Malaysia. Prior to that she was in education establishments, either private or government sponsored organisation. Her research interest are in the field of Intellectual Capital and Management Accounting. She is a member of the Malaysia Institute of Certified Public Accountants (MICPA).

Ilona Heldal is a professor at University College Bergen, Norway. Her research area is applied information technology, more specifically on the adoption of new technologies in organizations. The technologies she investigates are often communication technologies using graphical applications from the areas of architecture and urban planning, simulations and serious games for training, digital technologies for emergency management.

Fahmi Ibrahim is a Senior Lecturer at the Institut Teknologi Brunei (ITB), School of Business. His research focuses on KM practices and adding value, and the interface of KM and Intellectual Capital Management with the emphasis on management-measurement concept. In addition his research investigates the interaction of human-technology elements in KM.

Teerawat Kamnardsiri is an animation lecturer of College of Arts, Media and Technology, Chiang Mai University, Thailand. Prior to his Ph.D. study, Mr. Teerawat had completed his Erasmus Mundus "E-tourism Project" (2011-2014) which he has extensively developed to his own lecture courses in animation program. His research projects are centered in image processing and computer Vision.

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Tugberk Kaya completed a MSc course in 'Information Technologies & Strategic Innovation with Management Studies' at Kingston University. Since October 2013, he has been undertaking his PhD studies on 'Innovation & Knowledge Management' along with a lecturer position at the Faculty of Economics & Administrative Sciences in Near East University, North Cyprus.

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A Dynamic Approach to Causal Ambiguity: How Organizational Learning Affects Causal Ambiguity

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Abstract: Causal ambiguity concerns the ambiguity of the causality between competences and performance. Most publications on causal ambiguity lack a dynamic approach, and few studies have addressed how ambiguity increases or decreases during the course of time. We argue that causal ambiguity can be divided into three separate dimensions, i.e. socially complex characteristic ambiguity, tacit characteristic ambiguity, and linkage ambiguity. This paper addresses how competences are diffused within an organization and how this affects the three dimensions of causal ambiguity. In course of time competences are likely to be more and more diffused in an organization, from the individual level, to the group level(s), to the organizational level. Also, we propose that when competences are diffused from the level of the individual to the organizational level, tacit characteristic ambiguity and linkage ambiguity are likely to decrease whereas socially complex characteristic ambiguity is likely to increase. The paper is conceptual and we combine causal ambiguity literature with knowledge management theory and organizational learning theory to argue for our three propositions. Also, we discuss various factors that are likely to influence socially complex characteristic ambiguity, tacit characteristic ambiguity, and linkage ambiguity and propose different avenues of future research. For example, the various dimensions of ambiguity is likely to develop differently in mechanic and organic organizations. This paper is the first paper to discuss the relationship between the level of causal ambiguity and the extent to which competencies are diffused throughout an organization. Using organizational learning theory, the paper adds a more dynamic dimension to the causal ambiguity literature.

Keywords: causal ambiguity, organizational learning, knowledge management, tacitness, characteristic ambiguity, linkage ambiguity

A Knowledge Management Framework for the Community of Collaborative Innovation

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Abstract: This paper presents a knowledge management framework for developing a community of collaborative innovation based on a systematic review of the relevant literature in knowledge management and collaborative innovation. The proposed conceptual framework adequately considers the development of the community of collaborative innovation with respect to the management of collaborative innovation objectives, knowledge resources, knowledge activities, and the critical factors for effective knowledge management activities. The paper contributes to the existing research in collaborative innovation by proposing a multi-dimensional knowledge management framework for the development of the community of collaborative innovation. It argues for the adoption of a holistic approach to effective organizational knowledge management in supporting the overall effectiveness, efficiency and competitiveness of the community of collaborative innovation. The proposed framework is of practical significance as it can be used as an assessment tool to identify the critical factors for the development of communities of collaborative innovation across organizations through effective knowledge management in complex systems.

A Social Knowledge Management Framework for Harnessing Collective Knowledge Capital of Senior Citizens

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Abstract: Social knowledge management can be defined as a knowledge management framework that allows us to create and modify content collaboratively using social media and web 2.0 technologies. Another definition of social knowledge management is the management of social knowledge - where the aim is more towards social development - not only promoting competitive advantages for companies. This paper combines both the aspects of social knowledge management to address the challenges faced by the contemporary societies to impart "education for all" and to ensure delivery of holistic education for underprivileged children. To achieve this, our paper proposes a framework for a social media based social knowledge management platform that captures and disseminates informal wisdom of the elderly for teaching underprivileged children online using synchronous mode of distance learning. Elderly citizens can play a critical role in shaping the future of our society, if they choose not to withdraw as they age, but to nurture themselves as active elders. In this context, we have developed a prototype named OwlishOracle to realize a scalable online platform based on web 2.0 technologies in order to facilitate quality education to underprivileged children in all parts of India. Our work wishes to create a pool of online elderly teachers to harness the collective knowledge capital of this vast pool of dormant knowledge resource of the educated senior citizens, who are capable but otherwise not involved in any mainstream productive activities. This collective knowledge capital of the senior citizens is a form of "crowd capital" that is derived from dispersed knowledge of the elderly, and is a key resource (a form of capital) for the productive growth of the society through educating underprivileged children. Our aim is to mobilize this heterogeneous social knowledge resource, activated through social engagement of senior citizens with children through OwlishOracle. In this paper, we discuss our framework and highlight several design issues in order to make our platform acceptable, usable and beneficial to the targeted community. Aiming to address issues of exclusion and inequality in educational attainment by "connecting generations", it fosters the exchange of both formal and non-formal knowledge between elderly providers and young recipients.

Keywords: web 2.0, social knowledge management, social media, crowd capital, collective knowledge capital

Culture and Knowledge Management: From Research Examining Intercultural Interactions in Hotels in Thailand

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Abstract: Culture, the 'software of the mind', one of the broadest of social categorizations, explains differences in how individuals and groups know, communicate, act, think, emote, perceive and process information. This research deals with the interaction of culture and knowledge management (KM), a relatively neglected area of study, using research undertaken in the hospitality industry. Hospitality and tourism provide a unique data source for intercultural research, being a multicultural industry, yielding huge volumes of intercultural interplays, knowledge and information flows. It produces countless intercultural interactions and provides a very rich vein for those wishing to examine the interaction of culture with a variety of areas, including KM. The case study identifies the impact of cultural variables on management and KM from the analysis of intercultural interactions in the hospitality and tourism industry in Thailand. The study highlights the significance of and draws conceptual linkages between management, knowledge management and cultural constructs. Theoretically, this paper is positioned among intercultural management, knowledge management, cultural knowledge, intercultural communication and intercultural competence. The research methodology employs a qualitative interpretivist approach, using in-depth, semi-structured interviews and non-participant observation. Content analysis and a reiterative multi-step coding technique are applied to the data. The major findings emerging from the data analysis are explained using theoretical constructs from intercultural competence and knowledge management. This paper then identifies the importance of cultural variables affecting specific aspects of knowledge management, including knowledge sharing, transfer, innovation and development. The research is significant because there are few systematic studies of KM in the hospitality and tourism industry and because it emphasizes the importance of cultural factors and the requirement for intercultural and KM competence among hospitality and tourism practitioners. Knowledge management, particularly knowledge sharing, transfer, development and innovation must account for the specific cultural characteristics of the regions in which applications are to be deployed.

Keywords: knowledge management, intercultural interaction, communication, hospitality

Measuring Human Capital's Contribution to Knowledge Management in Today's Workplace

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Abstract: All organizations measure their specific employees' contributions to their organizations during the employee's performance appraisal period in the context of their selected measurement/evaluation instruction and as a component of their employee development. However, it has been argued that these appraisal/evaluative instruments are closed in scope and measure against their job description and assignment duties in a generic sense (SHRM, 2014). Therefore, it raises the question of whether or not there is any specific evaluate measure for evaluating their specific contributions to the organization in the context of any form of Knowledge Management (KM) creation/development, implementation or dissemination of such KMB components or tools. Consequently, the typical word found in performance appraisal evaluations has been "has the employee contributed beyond his or her call for duty in any project or business improvement endeavor that has created some form of benefit or significance for the organization?" Typically, this wording has eliminated many employee efforts and serves more as a barrier than a form of motivation. Therefore, it is the intent of this paper to investigate through the literature, both domestically and internationally, to determine if there is a local or international need for change in the form of the performance appraisal evaluation process in order to specifically focus on the human capital's contributions to their respective organization's knowledge management efforts. Finally, this paper will explore potential ways of propose a new methodology of rewarding and encouraging human capital in terms of acknowledging their contributions in the areas of knowledge management creation, development, implementation, maintenance and/or evaluation of such contributions. While many companies have focused on the knowledge management process and its outcomes, they have not spent enough time looking at one contributing factor, namely, human capital and its impact on how knowledge management can be created, nurtured, improved upon, and evaluated.

Keywords: human capital, knowledge management, performance appraisal, rewards, best practices

Empirical Analysis on Determinants of Intellectual Capital Disclosure Behaviour for Romanian Companies

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Abstract: The issue of disclosure of intellectual capital has been much debated in recent decades yet still unfinished. Numerous empirical studies have been developed to assess the size of a company's intellectual capital disclosure as well as the factors leading to a greater transparency regarding the disclosure of these immeasurable resources. In support of previous research, this study comes with the aim of understanding the behaviour of Romanian companies on the disclosure of intellectual capital exploited. The 38 companies investigated are knowledge-based companies, being part of fields of activity such as: information and communication, research and development, architectural and engineering services, computer manufacture, clothing and pharmaceutical products. All are companies listed on the Bucharest Stock Exchange (BSE), both in the Regulated Market section and in the RASDAQ section. The degree of intellectual capital disclosure was assessed with the method of content analysis, aiming at the information provided on the 72-item / indicators on intellectual capital (each 25 items / indicators for both human capital and relational capital and 22 items / indicators for structural capital). The information was collected from annual reports, annual financial statements, notes and other reports published by companies in 2010-2013, either via the BSE website, or on their own websites. The low level of disclosure of information on intellectual capital has led us to work for understanding the behaviour of disclosure, statistically testing links between the degree of disclosure of intellectual capital and variables such as: the size of the ratio of fixed assets, the ownership structure, the profitability (appreciated according to the return on assets correlated with the rate of inflation) and the level of created value measured by the indicators Economic Value Added and Market Value Added. The low level of the sample and the subjective nature of selection and assessment of items / indicators on intellectual capital are considered limits of this study. The paper confirms some of the previous hypotheses concerning factors susceptible to influence the degree of disclosure of intellectual capital, but testing the link between the level of disclosure and the indicators of value creation is part of the original aspect of this study. Identifying the factors that lead to an increased level of intellectual capital disclosure must get the attention of the accounting standards regulator in order to improve the financial reporting of intangible assets.

Keywords: intellectual capital, disclosure, content analysis, annual reports, Romanian companies

Learning how to Manage Knowledge in Large Research Projects: Drawing Inspiration From Inexpert Researchers

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goals, interactive teamwork, financial and temporal constraints. Their management is based on sophisticated project management (PM) methodologies and rigorous standards of control over deadlines and milestones, which offers the advantage that tasks are assigned and monitored with precision. However, as the studies of Knowledge Management (KM) show, researchers need a richer exhange of knowledge contents than is allowed by standard PM methods, and the burden of formal duties can make interpersonal interactions less effective. In addition, the emergence of new web 2.0 technologies gives the opportunity to exchange complex contents, and offers new ways to support the management of projects. Consequently, while it is generally agreed that PM methodologies should be a key competence of reseachers, there is the need to identify new methods that enable more effective knowledge exchanges for technical/scientific purposes. The study investigates these issues and particularly examines if formal PM methods to exchange knowledge and manage interactions are an "automatic" solution adopted by any research team, or if researchers would spontaneously prefer flexible approaches. Particularly, it investigates the "basic KM needs" that emerge from inexpert researchers working in complex projects. The assumption is that these researchers, being less aware of the standard PM methodologies used in complex organizations, can be less conditioned with regard to the exploration of new ways to interact. At the same time, this analysis can point out the real perceptions of novice researchers about the necessity of a structured PM approach. The case study of a research team of post-graduate Engineering students is presented. The team worked in a project of a rover vehicle that competes in an ESA (European Space Agency) challenge. The way team members perceived the problems of KM and PM, and the way they decided to organize themselves to face these problems was examined by means of a systematic investigation involving direct observations of their interactions and decision making processes, surveys, and interviews to team members. The study allows to draw useful lessons for the identification and design of new PM methods, based on KM concepts and on the use of web 2.0 applications, and can also provide elements for a definition of courses of PM and KM to novice researchers.

Keywords: knowledge management, project management, post-graduate students, space research

Limitations of Social Media as Conversational Knowledge Management Tools

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Abstract: New Web 2.0 technologies are changing the way Knowledge Management (KM) can be approached. In particular, thanks to the advancements in Social Media, KM systems and practices are speeding up their evolution from a "traditional" (i.e. monolithic, hierarchical, centralized, and controlled) approach to new ways of implementation based on active participation of employees. The wave of change brought to KM by Web 2.0 technologies has induced scholars to coin terms as "KM 2.0" or "conversational KM" that indicate this new perspective. In a conversational knowledge creation, people generate and share knowledge through dialog, which allows overcoming most of the limits of "classic" KM, and especially the difficult handling of tacit knowledge. Furthermore, Social Media are deemed able to enhance knowledge creation and not simply its transfer or reuse: this makes KM a real support for innovation and creativity. So far, the literature has put great emphasis on the benefits and advantages that Social Media can offer to KM, while less attention has been devoted to the difficulties and limitations raised by their introduction and use. The paper contributes to address this issue by deeply analysing the experience of a big consulting company that uses Social Media to support knowledge generation and transfer within their Communities of Practice. In particular, the study aims at investigating the possible challenges posed by the use of Social Media in KM, both from an organizational and a technical point of view. Given its exploratory goals and the complexity of the phenomenon under investigation, the research makes use of a case study methodology. The findings of the study will allow drawing managerial implications as well as suggestions for future research.

Keywords: conversational knowledge management, knowledge management systems, social media, enterprise social networking, case study

A Method for Levelling Business and Academic Narratives Representation

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Abstract: Harnessing an exchange program between the industry and university whose purpose is to map academic curricula onto industrial and managerial requirements, several guidelines have been agreed with the industry representatives, of which, the majority are centred on qualities required from alumni. The academic partner focuses more on the knowledge content, rather than on the soft skills required by the industry, though. This paper advances a methodology for data structuring and visual representation that allows this gap to be bridged. By applying the complex networks theory to analyse the business and academic narratives, we created a web of interactions for phrases that describe the desired qualities in the future employees, compared the generated network with the network describing skilful alumni and aimed to ensure a common mathematically based representation for comparison. It is to be noted that of highest influence in the industrial network were those stages concerning business practices and business responsibilities, whereas the same knowledge elements have limited to no influence in the academic curricula. Overlapping the resulting networks indicated that there were some intersecting groups represented by the automotive industry-targeted courses. Additionally, industry-relevant keywords to shape future courses have been identified providing a valuable guideline for the academic environment.

Keywords: data structuring, business narrative, academic curricula, complex networks

Mining Knowledge of the Patient Record

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Abstract: In this paper, we investigate the application of Data Mining (DM) techniques for mining knowledge of the patient record. We focus more specifically on available solutions offered by DM models and tools for improving the diagnosis and thus, the follow-up of patient. The patient record represents documents of the patient's examinations and treatments. Data Mining is the process of "mining" or extracting information from a data set and transform it into an understandable structure for further use. The application of information mining techniques to the medical domain are useful in extracting medical knowledge for diagnosis, decision-making, screening, monitoring, therapy support and patient management record. This will enhance patient safety and structure data during the acquisition process of data. We provide in detail the acquisition process of DM in the medical field through the electronic patient re-

cord. We propose a methodology for mining medical knowledge based on the Bayesian Classification. We use the Naïve Bayes Algorithm to develop this methodology. We illustrate the knowledge mining process by real examples of medical field. We demonstrate through these illustrations how knowledge is better mined and thus, reused when applying concepts and techniques of Data Mining.

Equationless Model of Knowedge Management and Scientific Parks

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Abstract: A SP (Scientific Park) is an integration of hardware - e.g. buildings, laboratories - and knowledge - e.g. knowledge basis of expert systems. SPs are extremely heterogonous systems difficult to model and manage. Several attempts have been made to model SPs using different formal tools e.g. fuzzy logic. However, SPs are multidimensional, interdisciplinary, difficult to observe. Modern computers are extremely powerful tools in terms of number manipulation. However, their contribution to solving complex problems using common sense has been practically very small. The presented paper therefore uses qualitative models based on three values: positive / increasing, zero / constant and negative / decreasing. An example of a qualitative SP model is presented. It has 10 variables, e.g. *Knowledge transfer, Competitiveness, Operation cost*. There are 11 equationless relations. The model generates 45 scenarios as its solution. The paper is self-contained, no a prior knowledge of qualitative modelling is presupposed.

Healthy use of Internet for Personal Knowledge Management: An Interventionist Approach in Tertiary Education

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Abstract: Recent studies on use of Internet among youngsters suggest problematic behaviour and adverse impacts on overall health as there are uncharted boundaries of information and media through Internet. Such related problems include Internet addiction, shyness, alienation,

psychological distress and academic performance decrement over time. As a consequence, the ability of students in tertiary education to communicate effectively and interact humanly could deteriorate as they become more accustomed to networking via Internet. However, students nowadays do increasingly rely on the Internet to perform research under the knowledge-based economy despite concerns over reliability and truthfulness of information available from Internet. Against such a background, we construct a framework for an optimal use of Internet with the main purpose of Personal Knowledge Management (PKM). We argue for an interventionist approach to orient students in tertiary education to develop a strategic mindset that utilizes Internet as a source for developing knowledge about learning outcomes while mitigating the risks associated with over-reliance and inadequate uses. There are specific skills of PKM for an optimal use of Internet. These skills can be learned in the initiation of a study programme and reinforced in course delivery, which include course assessments and assignments provided. Students are advised on the validated sources, such as electronic databases and e-libraries that are well-recognized as knowledge bases for studying and learning. PKM aims to orient students in tertiary education to develop a strategic mindset that exploits Internet as a source for developing knowledge about learning outcomes while mitigating the risks associated with over-reliance and inadequate uses. The importance of orientation, on-going monitoring and reinforcing position habits through pedagogies should be emphasized. A key potential benefit of this approach is to prevent students from adopting habits of using Internet that could cause health-related problems and develop into behaviours that inhibit their future developments.

Linking Knowledge Management to Transformational Leadership: The Mediating Role of Work Team Processes: A Review of Literature and Research Agenda

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Abstract: This is a conceptual paper which contributes to literature on knowledge management and Transformational leadership by developing linkages between the two via teams and team processes. The paper seeks to further develop the understanding of the role of transformational leaders and teams in enhancing knowledge management. Despite transformational leadership enjoying success and attention as an exceptional leadership theory, few scholars have investigated a specific link between transformational leadership theory and knowledge management. In addition, no attempt has been made to explore the influence of transformational leadership on knowledge management through interactions with teamwork processes. This paper discusses how transformational leadership theory can provide a framework in which to investigate a transformational leader's impact on knowledge management via teamwork processes. The paper posits that idealized influence/inspirational motivation, intellectual

stimulation and individualized consideration could impact on team conflict management, cohesion and communication to produce intermediate outcomes such as satisfaction and commitment. In turn, these intermediate outcomes may positively affect knowledge management initiatives. The paper is a result of extensive review of literature on transformational leadership, teams and knowledge management. The paper begins by providing an over view of issues arising from review of literature in knowledge management and transformational leadership. The paper then goes on to show the importance of transformational leadership to knowledge management as demonstrated by reviewed work .A highlight of the linkages between transformational leadership, knowledge management and teams as identified from literature review is then given. The author then goes on to develop a conceptual framework depicting a relationship between transformational leadership and knowledge management via teamwork processes. By developing the conceptual model, the author demonstrates that transformational leadership can have an impact on knowledge management via use of teams. This impact is however mediated by team processes. The main body of the paper closes by briefly outlining a tentative list of issues which require to be addressed in order to further increase our understanding of the links between transformational leadership, knowledge management and teams.

Keywords: transformational leadership, teams, work team processes, knowledge management, cohesion, conflict management, communication

Technologies Supporting Longitudinal Collaboration Along Patients' Pathway: Planning Training for Prehospital Care

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Abstract: The health sector is facing a transformation towards value-centred or Patient-Centred Care (PCC), where organizations become less important and the role of involving patients increases. The efficiency of the healthcare that is being provided is measured by outcomes realized in relation to the expense incurred by patients for the time it takes for them to make their way through the network of care providers. We call this patient travel and the abstract description of it patient pathway. Technologies might be enablers for seamless transitions during the patient travel, but they are under-utilized. The aim of this paper is to improve the understanding of the role of technologies experienced during patient travel for training in prehospital care. Data comes from a study initiated by stakeholders responsible for emergency management in Sweden and literature reviews. Strategies and processes as analytical lenses were used to describe findings and suggest future directions. The results enhance the increasing importance of strategies and processes and the role of technologies moving towards PCC. The steps that contribute to patient travel can include several activities, involve different professionals and require a variety of resources. Processes can make progress during this travel

more visible. Processes contribute to planning training and education and identify requirements for technology support. Technologies can support transition and coordination problems between the groups involved. Routines and procedures are needed in order to adjust and effectively use these technologies. Strategies may help the organizations to provide a common overall view on approaching and understanding their own contribution to patient values and their own requirements for technology support. This will contribute to planning more adequate training with respect to the complete patient travel and to better understand requirements for collaboration and technology support.

Keywords: knowledge transfer, healthcare, technology, patient-centred, patient travel, processes, strategies, collaboration

Identifying Hidden Needs by Enhancing Organizational Learning

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Abstract: Hidden needs are defined as requirements that customers or users have but which they have not yet directly recognized. As these requirements rest on a subconscious level, users are unable to articulate them (Goffin & Lemke, 2004). The identification of hidden needs and the externalization of knowledge about needs are very important and highly valuable for organizations because it extends the range of possible solutions and therefore enables them to create more innovative and sustainable products and services. In literature and practice we can find different approaches and methods for identifying hidden needs. Most of these methods are market-driven and have therefore their origin in the fields of marketing or customer relationship management. Yet, little to no theoretical as well as practical work has been done to identify hidden needs as part of organizational learning. In this paper we introduce an extended learning approach which covers not only conventional learning based on experiences from the past but also learning from future experiences. This can be managed by literally envision a desired future scenario and thus enables the creation of radical new knowledge. Furthermore we focus on identifying hidden needs as part of this extended learning approach by using an abductive and qualitative method. So the research question of our paper is the following: *"How does an enhanced organizational learning approach support the identification of hidden needs and the generation of additional knowledge about needs?"* For our study we use data from a case study we have made with two groups of students at the university and we will discuss this case study in detail. Furthermore we will shortly present the main outcomes of other projects we have conducted in order to generate knowledge about needs. Our paper will be structured in the following way. Firstly, we will discuss the theoretical background of the theory of needs and hidden needs as well as our advanced approach of learning from an envisioned future. Secondly, we will describe the main parts of Bewextra which is our method for generating and externalizing knowledge about needs. Subsequently we will present, analyze

and discuss the case study with the two groups of students and outline the main outcomes of the other projects.

The Success of Product and Process Innovation Generated From Customer Knowledge Management

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Abstract: The success of product and process innovations is warmly welcomed by companies in order to enhance their competitive advantage. Therefore companies would like to generate successful product and process innovations. Product/process innovation is very important for in the current highly competitive market, but the initial idea generation process for the success of product/process innovation is still an ambiguous process. Therefore this research attempts to establish the initial process for a successful product and process innovation. Customer knowledge management is a technique which can be used to start the initial stage of a successful innovation generation process, followed by employee idea generation, and finalized with the desired outcome "successful product/process innovation". A structural equation modelling (SEM) is used to examine the relationship between the customer knowledge management (CKM), the employee idea generation, and the success of product/process innovation. A questionnaire was used to collect data from the top ten high performance international manufacturing firms which have manufacturing plants located in Thailand. Result indicates that the customer knowledge management direct influence on the employee idea generation, and the output of the employee idea generation is the success product/process innovation.

The Impact of Tacit Knowledge Capacity on Social Media: An Empirical Research on Physicians in North Cyprus

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Abstract: Tacit dimension of knowledge is still remaining as Black box in the knowledge management literature. While it is not a new concept, the sharing of tacit knowledge at the social media environment has recently been discussed in the last decades. There are mainly two

important approaches on sharing and capturing the tacit knowledge. The first one is about the possibility of sharing tacit knowledge by using social networks tools. For example Hildrum (2009) and Lopez-Nicolas and Soto-Acosta (2010) mentioned that IT can trigger sharing of the tacit knowledge. The second one argues that it is almost not possible to share tacit knowledge by using IT tools. Sagsan (2003) argued that according to the mental models, transmission stage is problematic which includes common sharing and diffusion within an organization among stakeholders. Likewise, Flanagin (2002), Johannessen et al, (2001), Hislop (2001) and Haldin-Herrgard (2000) argued that though tacit knowledge sharing via IT is almost impossible. This paper argues that social media can be used effectively to increase the tacit knowledge capacity. As the people need to be contacted from their preferred medium of choice (Fill, 2011) it will be suitable to use social networks to share the tacit knowledge within organizations. The empirical part of this study concentrated on physicians in order to understand how the tacit dimension of knowledge capacity could be diffused or captured. Questionnaire had been conducted to 138 physicians who works in North Cyprus and the regression models indicates that Seniority of Employees and the Speed of Adaption of Innovation affects both Tacit Knowledge Accumulation and Tacit Knowledge Transfer.

Role of Codification and Personalization in Organizational Learning, Innovation and Performance: A Conceptual Framework and Research Propositions

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Abstract: This paper first provides a literature review that summarizes the inter-relationships among knowledge management (KM), organizational learning (OL), organization innovation (INNO) and organizational performance (OP) and a conceptual framework is then proposed to improve the OP through appropriate KM strategies. Two widely-adopted KM strategies – codification and personalization– are examined. Codification is defined as the extraction and storage of explicit knowledge from employees while personalization refers to the activities, like communities-of-practice or storytelling, which facilitate the knowledge transfer and exchange in organizations. Several studies emphasize that organizations should adopt one of them predominantly, in a ratio of 80 to 20 – i.e. 80% for personalization while 20% for codification or vice versa. In contrast, some researchers advocate that organizations should strike a balance between two strategies. The prioritization or balance between codification and personalization remains questionable. Moreover, KM strategies are proven to influence the OP directly and indirectly through INNO in many studies. In addition, one recent study points out that OL plays the mediator role between KM and INNO. However, there have been limited

studies to address the relationship between codification/personalization and OL. Further investigation is needed. To develop the conceptual framework in this paper, diverse literature on codification, personalization, OL, INNO and OP were reviewed. As mentioned, the key elements in KM strategies are codification and personalization. Commitment to learning, open-mindedness and experimentation and shared vision are the major components of OL. INNO is further classified into four sub-categories: administrative, technical, product and process innovation. OP is measured in financial performance, customer intimacy, learning and growth and internal operation. This proposed framework seeks to enhance the understanding of different processes mediating KM strategies and OP. Understanding the roles of OL and INNO, senior management can gain the insights in prioritizing/balancing between different KM strategies and in turn improving OP.

Mental Models on Knowledge Workers and Their Management

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Abstract: This paper discusses mental models that researchers and managers of knowledge workers developed on knowledge workers and their management. Identification of mental models helps us to discover why managers behave and manage knowledge workers in a certain way. Regardless of organisation or the region, more and more employees can be classified as knowledge workers. Knowledge workers are employees whose major tool is their brain. They create, distribute and apply explicit as well as tacit knowledge when working. Knowledge workers are difficult to manage because of the intangibility of knowledge. This intangibility of knowledge makes the process of the work of knowledge workers invisible. Due to this invisibility, control of the process of work is difficult, if not impossible. The results of work of knowledge workers usually have a systemic impact on their constituents and their environment and they may differ from a short and long term perspective. Knowledge work demands employees with a much better education and training in a certain field. Many of them can and want to work and decide independently, even to manage themselves. Knowledge is fully owned by the knowledge worker and when they leave the company, knowledge leaves with them. These and many other specifics complicate the management of knowledge workers. Our previous research on knowledge workers and their management show that many managers are not aware of the specifics and dangers of working with knowledge and knowledge workers and they try to manage their subordinates in the traditional way through orders and control. To learn more about this problem, we tried to discover mental models researchers and managers of knowledge workers developed on management of knowledge workers. First, 30 articles and books were analysed to identify ideas on knowledge workers in existing literature and the mental models of the authors of these article and books on knowledge workers. To identify the men-

tal models of managers, we used one of our previous researches on knowledge workers and their management. Mental models of both researchers and managers were identified by grounded theory.

Quantitative Analysis of Knowledge Management CSFs: A System Dynamics Approach

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Abstract: The purpose of this research is to use systems approach to develop a System Dynamic (SD) model for analysing the Critical Success Factors (CSFs) of Knowledge Management (KM) which are qualitative in nature. A literature survey is conducted to identify the CSFs of KM. Amongst the five generic critical success factors identified, *viz. Organization culture, Top management commitment & support, KM tools & technology, KM organization & process* and *KM measurement & incentives*, the research focuses on the '*technology*' dimension of the KM initiative and explains how the associated variables affect Knowledge Management System (KMS) performance. The SD model is developed through a five stage process of Problem identification, System conceptualization, Model formulation, Simulation & validation, and Policy analysis & improvement. The model developed uses systems approach to identify the interdependence between CSFs, and the influence of the variables belonging to the technology dimension of KM are varied dynamically, to study their impact on KMS performance, in conjunction with the other CSFs. The model behaviour with reference to the *technology* dimension is analysed by simulating the model for different possible scenarios. The simulation results emphasize on the need for timely adoption of technology, reduction of the delay in usage of technology so as to gain the competitive advantage. The role played by technology obsolescence on KMS performance is also depicted. The results gives insights to the managers on how to handle the technology dimension of a KMS in concurrence with the other enabling factors of KM. Also, the model demonstrates the use of SD models in evaluating qualitative constructs using quantitative simulation models. There was lack of literature evidence on the study of critical success factors of KMS using an SD model. Hence this paper tries to fill this gap by developing an SD model which can be used to analyse each of the critical success factors in detail, but in concurrence with each other. The use of the model is demonstrated by analysing the technology dimension of the KMS and the results and implications are reported. A clear scope for future research is also provided at the end of the study.

Project Management Knowledge Discovery in Kazakhstan: Co-Word Analysis of the Field

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bstract: Over the past 25 years Project Management (PM) has become a diverse field of research, whose agenda has substantially moved from a practitioner focus to an academic one. Given such an established background of the global PM research and knowledge, it is appealing to explore its current status and dynamics in emerging economies. This paper focuses on Kazakhstan where the need for application of the best PM practices has increased since its independence in 1990s and the local research in the field gained an interest in the early 2000s. From this perspective, this paper aims at exploring the current status and dynamics of PM research and knowledge in Kazakhstan. To achieve its aim, the study analyzed the abstracts of 826 publications relevant to the local PM and its allied disciplines. A Co-word Analysis Technique (CWAT), a scientometric method for quantitative analysis of a content of academic publications, was applied for this purpose. The study utilized the VOSViewer® software tool specifically designed for constructing and visualizing bibliometric maps. The analysis was split into three distinct streams. Firstly, a study of the search categories of the PM research and knowledge in Kazakhstan, which found that the majority of publications in the local PM and its allied disciplines came from oil and gas, processing, construction and heavy industries. Secondly, a cluster analysis of the publications' most frequent terms relevant to PM generated three distinct clusters corresponding to the following three domains of the local PM literature: PM in the education and technology sector, PM in country and regional affairs, and PM in the energy sector. Finally, a third stream, which comprises an analysis of the association between different terms and their density structure, revealed that the research and knowledge areas around such terms as development-country, Russia-China, production-construction, and crude oil-pipeline turned out to be important. Given the above-mentioned findings, it is worthwhile highlighting the following research implications. Firstly, by applying a novel CWAT method to the content of Kazakhstan, the study confirmed that the research in PM and the development of its body of knowledge are in its infancy. Secondly, there is a clear relationship between the state-of-the-art of the development of the economy and the level of project orientation of the country. Finally, the findings provide clues to the impact of this popular topic. They can assist researchers and policy makers by providing a panorama of the issues related to the local PM and its allied disciplines. All in all, the findings of the study add value to the existing body of knowledge and are an asset to be used in the development of project orientation and thinking of Kazakh society.

Keywords: co-word analysis, emerging economy, Kazakhstan, knowledge discovery, project management, scientometrics.

Knowledge Management for CSR and Sustainability Performance: Renewing the Business Model Through Systematic Innovation for Value Creation

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Abstract: Disclosures on Corporate Social Responsibility (CSR) demonstrating accountability of business organizations to their communities and more recently on Sustainability have become necessary as requested by various stakeholders and regulatory bodies around the world. Social, environmental and economic sustainability of organizations is an area that various stakeholders continue to quest for more information about achieving performance without sacrificing long-termer benefits of the communities. However, CSR and Sustainability may not be effective under a business system that focuses on near-term performance as restrained by conventional financial controls. As a consequence, CSR and Sustainability performance could be merely mediocre and public relations-driven without a systematic effort that optimizes the use of knowledge. Stakeholders' concerns about CSR and Sustainability of organizations bring about the need to develop a complementary culture and internal routines to enhance such practice. Prior studies have in fact revealed a positive influence of CSR and Sustainability over business performance of an organization in a longer run. Knowledge management (KM) is regarded as a systematic approach to manage knowledge effectively to create value for an organization. Our contention is that KM adopting a systematic approach enables organizations to make use of both tacit and articulated knowledge for continuous improvement of organizational performance with renewal of business model. This paper aims to provide an interdisciplinary literature review pertinent to the theoretical foundations of KM and to examine how they could be relevant to the development of CSR and Sustainability. A framework is explored in this paper to construct an integrated performance management and measurement system that facilitates innovation initiatives for CSR and Sustainability. Complementing the development of a supportive corporate culture, it points out the importance of KM in enhancing the ability of an organization to embed internal continuous processes for improvement of economic, social and environmental sustainability. It proposes a range of potential studies to deepen the understanding of KM for CSR and Sustainability as the engine for renewing business model for organizations of the future.

Keywords: knowledge management, corporate social responsibility, sustainability, performance measurement, performance management, systematic innovation

Improving China's Corporate Governance Within the Big Data era: Integration of Knowledge Management and Data Governance

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Abstract: Several literature examined different ways in improving China's corporate governance such as floating on non-tradable shares, executive compensation, strengthening independent board of directors and supervisory board; however, there is a lack of existing research addressing the important role of knowledge management (KM) and data governance in China's corporate governance within the big data era. Knowledge management and data governance have become a major factor for improving corporate governance for international success. Therefore, this study is designed to develop a conceptual framework integrating KM strategy and data governance in improving corporate governance in China. We suggest that a KM-based approach to corporate governance provides a valid perspective. Both KM governance and data governance are indicative in improving corporate governance in China within the big data era. Devising appropriate KM mechanism and data governance helps ensure efficient and sound decision making from board of directors and stakeholders of organizations; minimizing falsification of accounting information among stakeholders.

Human Capital in Conditions of Global Competitiveness: The Case of Kazakhstan

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Abstract: One of the most urgent economic issues of the Republic of Kazakhstan the formation of a high level of competitive human capital of the country. The main objective of this research is the development of a theoretical and methodical basis and substantiation of the significance of human capital as a factor in increasing national economic competitiveness. A comparative analysis of macroeconomic indicators forming the human capital of the Republic of Kazakhstan has been carried out for the seven-year period 2008-2014, since the moment of the economic crisis until now. On the basis of the conducted analysis, competitive advantages and disadvantages of the human capital and dynamics of its development are revealed in the context of international competitiveness. Moreover, it is proved that human capital has a national economic impact depending on the level of the country's competitiveness. In particular, it is con-

sidered that the country's competitiveness and basic factors that form human capital include the level of gross national income, life expectancy, primary and higher education, labor market efficiency and innovation potential. Theoretical background of the research includes research by domestic and foreign scientists in the field of human capital theory and its assessment, human resource management, knowledge economy and international competitiveness. Information basis of the research includes the most relevant international sources such as annual Human Development Reports by UNDP, Global Competitiveness Reports published annually by the World Economic Forum in Switzerland, Davos, and researches by the INSEAD French Research Center. As a result of the research it is proved that competitive human capital plays a significant role in the system of modern economic relations. It has revealed key factors for developing essential human capital in Kazakhstan in terms of global competitiveness, the interrelation of human capital structural elements and determination of the national economic impact in varying degrees.

Investigating the Determinants of Acceptance of Virtual Communities of Practice in the Public Works Department of Malaysia

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Abstract: Intensifying competitive pressures associated with globalization coupled with increasing project complexity have brought about a greater demand for the project managers, engineers, architects and quantity surveyors of the Public Works Department, to be equipped with appropriate knowledge and skills. It has been discussed that virtual communities of practice (VCoPs) have been utilised as a platform that can provide an effective knowledge sharing environment which is independent of time and space, allowing practitioners who unable to meet up with the subject matter experts to receive 'first-hand' knowledge from the community. For Managers facing an array of problems which resist traditional ways of learning or a Knowledge Worker who wants to know "how do I fix things", the CoPs can be utilised as an enabling environment to seek, embrace new experiences and be an integral part of the community that is focussed on enhancing and expanding their collective awareness and capabilities. However, successful implementation of these CoPs require a solid understanding of the factors that affect its usage and acceptance. The purpose of this study was therefore, to investigate factors that influence the successful implementation of JCoP, a virtual CoP system that was developed in 2013 and utilised as a knowledge sharing tool for the Public Works Department professional community. Data collected from a sample of 153 professionals were used to test hypothesized relationships that draw upon an extension of the DeLone & McLean IS

model which hinges on the elements of quality of service, information and technology. The research was descriptive and empirical in nature because the primary data was collected using the survey method through fact finding techniques such as online questionnaires and interviews. The main purpose of this research was to obtain information concerning the current status of the phenomena to describe "what exists" with respect to variables or conditions in a situation and what are the factors perceived to enhance the usage of JCoP and eventually serve as an online learning mechanism to the organization. The questionnaire survey items and the feedbacks from the focussed discussions were utilised to assess the usage and acceptance of JCoP as a knowledge sharing tool and to answer the following questions: What are the critical success factors of enhancing the usage of JCoP? How can JCoP be sustained to facilitate a learning environment in the organization? What form of management support is needed to ensure acceptance amongst the professional community? The results demonstrated that the proposed model successfully accounts for how these professionals came to accept JCoP as a collaborative platform to share and acquire tacit knowledge. This study provides insight into acceptance and sustenance of virtual communities of practice on the part of the professionals in the public sector community.

Keywords: virtual communities of practice, tacit knowledge sharing, DeLone & McLean IS Model, collective awareness, organizational learning, online learning environment

Potential of Community of Practice in Promoting Academia-Industry Collaboration: A Case Study

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Abstract: This article examines the potential of a community of practice (CoP) to generate the dynamic capability of organisations in an academy-industry collaboration. This case study was carried out within the Northern Research and Innovation Platform (NRIP), which is a university-led open CoP in northern Finland that was established to intensify academy-industry collaboration in the field of environment, energy and natural resources. Our article provides new empirical evidence regarding the potential of working in a CoP to create dynamic capability. We analysed the experiences of the members participating in the NRIP in promoting academy-industry collaboration. The participants' expectations and gained benefits were categorised under four themes: (1) potential collaboration, (2) increasing overall and specific knowledge, (3) dialogue from a business point of view and (4) strong regional relevance. Our findings indicate that although the experiences of working in the NRIP were mainly positive, the forum was not designed to be company-oriented. Instead, the universities and the research organisations benefitted the most. While universities and public organisations engage in discussions at an abstract level, companies value more concrete tasks and measureable results. We also noticed that companies, unlike universities, do not have the mechanisms with which to take advantage of the knowledge and utilise it to enhance their dynamic capability. It is also important to note that this data clearly shows that cooperation is considered a key resource factor and an oppor-

tunity, particularly in regions that are not obviously attractive growth centres. Cooperation is therefore considered important to the vitality of rural areas' development. In its current form, the CoP merely benefits universities and other research institutes; therefore, we recommend that the focus should be on developing the CoP to be more company-oriented.

Intellectual Capital Reporting Practices by Knowledge Intensive Companies and Traditional Product Based Companies: Empirical Evidence

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Abstract: This study aims to provide an overview of intellectual capital reporting practices by knowledge intensive companies and traditional product-based companies in Malaysia. Knowledge intensive companies with large hidden values may rely heavily on intellectual capital to generate profit and create value. Thus, it creates an incentive for knowledge intensive companies to voluntarily disclose additional information to their stakeholders. Hence, it is expected that knowledge intensive companies have greater incentives to disclose their intellectual capital information than traditional product-based companies. Therefore, the objective of this study is to examine relationship between firm's characteristics and intellectual capital reporting in both types of companies. This study intends to examine and compare the effect of firm's characteristic in terms of the firm's size, type of auditor, leverage and profitability on the extent of intellectual capital reporting in both types of companies. The main source of data collection used in this study is company's annual report. Thus, 184 annual reports for the financial year of 2012 from 92 companies in technology sector (knowledge intensive companies) and 92 companies in consumer products sector (traditional product based companies) were downloaded for content analysis methodology. The regression results of hypotheses testing showed that only the firm's size of the knowledge intensive companies has a significant relationship with the intellectual capital reporting practices. Other types of firm's characteristics (type of auditor, leverage and profitability) do not have significant relationship on the extent of intellectual capital reporting practices by both knowledge intensive companies and traditional product based companies.

Internal Processes of Absorptive Capacity: A Systematic Literature Review and Future Research Directions

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Abstract: It has been a quarter of a century since 1990, when Cohen and Levinthal first coined the term "Absorptive Capacity" as a firm's ability to acquire, assimilate, and exploit external valuable knowledge and apply it to innovative performance. Since then, the construct has been addressed and developed by a tremendous amount of theoretical and empirical research studies aiming to clarify its capabilities and mechanisms. However, much of the inner capabilities of the Absorptive Capacity construct remain a black box due to a lack of cumulative and cohesive research. To provide clarity to the direction of future research studies in the Absorptive Capacity domain, we conducted a systematic literature review of 156 papers retrieved primarily from the EBSCO database. We mainly focused on Absorptive Capacity internal capabilities with regard to the processes of acquisition, assimilation, transformation and exploitation. The analytic results highlight areas of improvement and provide direction for fruitful future empirical contributions to the Absorptive Capacity construct.

Keywords: absorptive capacity, meta-routines, systematic literature review

An Analysis of Knowledge Management Frameworks: Towards a new Framework

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Abstract: Knowledge management has gained popularity in recent times because knowledge is regarded as a vital resource in today's economy. While there are a number of knowledge management strategies, three strategies are widely cited in literature: the knowledge management schools of thought; the personalisation and codification strategy; and knowledge management lifecycle frameworks. The lifecycle frameworks are the most popular with researchers and practitioners. The problem with the frameworks is that there are too many frameworks with different processes for academics and practitioners to choose from. This paper analyses 15 widely cited frameworks and proposes a new unified framework. Content analysis was used to count and group similar, prominent processes into concepts. The unified framework has seven

knowledge management processes: knowledge acquisition, creation, organisation, storage, transfer, application and learning. The principal aim of the unified framework is to eliminate the confusion created by many frameworks with many different processes.

Identifying Strategies of Autopoietic Epistemological Knowledge Utilization Theory Leading to Innovation

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Abstract: In this paper, knowledge management is analyzed according to the esoteric epistemological view on knowledge management. Epistemology is "the study or a theory of the nature and grounds of knowledge especially with reference to its limits and validity." The three epistemologies referred to in this paper are artifact-oriented, process-oriented and autopoietic-oriented (Christensen & Bang, 2003). This paper advocates the third way to look at the process of knowledge management via the *autopoietic epistemology*. Autopoiesis is a theory rooted in neurobiology, but it was later developed into a theory about social systems such as employees, project teams or organizations. Subsequently, it was introduced in organizational theory and in knowledge management theory. Following this epistemological theory a synthesis of knowledge management summarizes seven critical strategies for knowledge utilization within a firm (Backer, 1991; Shaperman & Backer, 1995). These strategies have empirically proved effective in meeting the knowledge utilization challenges. These strategies are *interpersonal contact*, *planning and conceptual foresight*, *external consultation*, *user-oriented translation of information*, *individual or organizational championship*, *individual ownership and involvement* and *individual promotion* Also, using the mapping concept it is possible to scan all the organization's projects and activities and allocate the strategy ownership to individual participants using activity mapping, determining goal relevance and conflicts, and assessing the strategic importance to organization. As per contingency approaches this maximizes knowledge utilization using both environmental and organizational coordinates. Thus these seven knowledge management strategies enabling autopoietic knowledge management epistemology lead to higher innovation in organization as found in an exploratory study conducted in a project group in an organization!

Development of a Knowledge-Based Quality Function Deployment Tool for Group Decision Making

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Abstract: A team of decision makers (DMs) in any organization has always faced with lack of efficiency and consistency when making hard decisions. An absence of a Knowledge Management System (KMS) in a decision support tool accounts for a significant portion causing this problem. This study developed an automated Knowledge-based Quality Function Deployment (KB-QFD) tool to facilitate the team to mitigate such a problem. This study established a KMS and embedded this into a modified QFD tool. The focus of this study is on assessing different building envelope design alternatives of a high-rise residential building. Both literature reviews and semi-structure interviews with senior building designers in Singapore were conducted to acquire knowledge stored in the KMS. The study employed a case study of a building design team as a research design to test the KB-QFD tool. Semi-structured interviews were applied as a data collection method to gather perspectives of team members towards using the tool to mitigate inefficiency and inconsistency in assessing the building envelopes. Findings from the interviews suggested that the KMS of the tool facilitated members of the design team to overcome cognitive limitation of knowledge, to increase consensus and confidence of the team, to reduce bias when dealing with similar decisions, and to make a prompt response. The tool therefore enhances efficiency and consistency in assessing the building envelopes. Future research is recommended to apply the development of the KB-QFD tool to build other decision support tools in their study domain.

Keywords: knowledge management system, quality function deployment, decision support tool, building envelopes, Singapore

Sharing Workspace, Sharing Knowledge: Knowledge Sharing Amongst Entrepreneurs in Jakarta Co-Working Spaces

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Abstract: A relatively new phenomenon across the globe, co-working space is a working environment, shared by professionals with similar community values, who work independently as well as collaboratively. Co-working space accommodates new

working ways such as remote working and flexi-time. Co-working space also facilitates knowledge sharing - one of the most important components of knowledge management issues. The underlying research question of this preliminary qualitative research is: how knowledge sharing occurs in co-working spaces? By using semi-structured interviews with eight male and female entrepreneurs from small and medium enterprises who are users of two co-working spaces in Jakarta throughout March-April 2015, this writing captures these findings. Occurs informally and voluntarily, motivated by personal and business development, knowledge sharing amongst entrepreneurs in these co-working spaces involves donating and collecting tacit knowledge, shared around points of interaction such as pantry/kitchenette and coffee makers and during lunch and/or afternoon coffee breaks, and endorsed through community culture formally declared in membership agreement and promoted by co-working space hosts. Knowledge not shared in these co-working spaces is trade secret-related. Subjects also admit that they refrain from sharing knowledge to direct competitors. Knowledge sharing is also discouraged when the majority of available tables are dominated by certain company - resulting in hesitance to share knowledge. In conclusion, co-working space is worthy for further examination as a workplace setting supportive for knowledge sharing due to its accumulation of diverse valuable knowledge resource available at any time. These findings can be valuable not only to co-working space developers and users, but to knowledge management enthusiasts interested in informal and voluntary knowledge sharing behaviour, entrepreneurship advocates who focus on collaborative business development, industrial and organizational psychologists who zoom in into new working ways and their impacts on work behaviour, as well as urban space designers such as architects and interior designers. Future discussion of this paper includes possible behaviour modification interventions and identification of other psychological factors of knowledge sharing in co-working spaces to maintain and even promote this behaviour. Follow-up research can also include comparative studies: knowledge sharing between co-working spaces and more conventional, permanent work setting such as offices; also between those working as entrepreneurs and as employees of formal, hierarchical organizations.

Keywords: knowledge sharing, new ways of working, co-working space, entrepreneurship, small and medium enterprises, open innovation

Developing a Knowledge Strategy for Medical Humanitarian Crises: A Case Study of Médecins Sans Frontières (MSF), Switzerland

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Abstract: Médecins Sans Frontières, (MSF) an independent, medical humanitarian organization has been lauded for its heroic efforts to respond to the Ebola crisis which began in March 2014 in West Africa. Yet as a recent report it published in March 2015, MSF was pushed to the limits and beyond. This paper discusses the results of research on knowledge and information requirements in a humanitarian organization currently being undertaken by MSF, Switzerland. It highlights the challenges the organization faces to collect, synthesize and disseminate accurate data and information. One of the crucial issues in responding to the recent Ebola crisis was an absence of up-to-date accurate information and data to be used at headquarters and in field missions by volunteers during this highly volatile, complex health crisis which caused the death of 10,000 people including some 500 health workers in Guinea, Liberia and Sierra Leone. Over a period of 12 months, 1,300 MSF international staff and 4,000 local staff were deployed in West Africa where they provided medical services for approximately 5,000 Ebola patients. Knowledge and expertise are essential resources for MSF which delivers emergency aid to people affected by armed conflict, epidemics, as it is for other humanitarian organizations. MSF leadership is currently reviewing its processes, organizational structure and organizational culture to explore how the sharing of knowledge and lessons learned can be improved with the overall goal of saving more lives in crises such as the Ebola epidemic. This review is being undertaken with the assistance of two academic institutions in Switzerland. A recent MSF report on the Ebola crisis: Pushed to the Limit and Beyond: a year into the largest ever Ebola outbreak, provides a critical analysis of the global Ebola response, highlighting "how inefficient and slow health and aid systems are to respond to emergencies" (MSF, 2015). This report does not provide a definitive conclusion to what went wrong but it does provide reflections on the key challenges from the perspective of MSF experts who were involved in the crisis. It notes that there was little information or knowledge shared between countries affected by the crisis. Health officials in the countries affected mostly relied on the World Health Organization (WHO) to act as liaison between them and this approach proved to be largely inadequate. Cooperation and collaboration amongst agencies is often mentioned as a crucial problem in crisis management as it is for other humanitarian organizations. Recognizing that effective knowledge strategy is essential for rapid and informed response to crises, MSF launched a knowledge management (KM) research project in 2013 and decided to seek assistance from two academic institutions, the Ecole Polytechnique Fédérale de Lausanne, (the Swiss Federal Institute of Technology Lausanne, EPFL) and the Haute École de Gestion de Genève, (Geneva School of Business Administration, HEG). The EPFL developed a technological solution for content, process and system management, while the HEG primarily addressed content manage-

ment issues, governance and collaboration. There were clear benefits for both parties: the students gained experience on implementing knowledge management practices within an institution and MSF benefitted from a research perspective and an external point of view. This paper describes the projects, their objectives, methods, outcomes and the interaction with MSF staff and management.

Organizational Memory System as a Foundation of Knowledge Management

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Abstract: The purpose of this paper is to certify the organizational memory system as an essential part of Knowledge management in the Thai Bank Industry – this paper focused simply on methods of memory system being applied in the sample bank. Aiming to develop an organization towards a Learning Organization, 'managing knowledge' is compulsory. Finding that the top 5 methods of memory system being used in the Thai Bank industry are note taking in the personal paper form; note taking in the personal computer; asking (what they would like to know) from colleagues; manual files kept on intranet; and asking from knowledgeable people in the Bank. This research shows that it is necessary to have systems helping in memorize knowledge of the organization; furthermore, Thai bank should highlight the method that is more explicit form of organizational memory system. Thus, it can protect knowledge losing when employees leave the organization.

The Important of Organization Integration and Communication to Increase R&D Engineers' Creativity

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Abstract: The Original Design Manufacturer (ODM) firms are very much depended on R&D engineers, who are viewed as the source of creativity and innovation for the firms to improve its business values and to sustain the firm's position in this ever changing and highly competitive market. However, Malaysia's GERD/GDP ratio of 1.07 in 2011 was considered low compared to other Asia Pacific countries like Singapore, China, Korea and Japan. Besides, the

Global Innovation Index published by Cornell University, INSEAD, WIPO (2014) also indicated that Malaysia's score values of 45.60 (100 is the best) was lower compared to China (46.57), Singapore (59.24), Korea (55.27), and Japan (52.41). Nonetheless, this indicates that Malaysia still has room to catch up its R&D and innovation performance with these countries. In order to promote R&D engineers' creativity within the organization, organization integration and information and communication are viewed to be well shaped to enhance creativity of the engineers. The researchers also proposed that knowledge exchange will play an intervening role to link the relationship between organization integration and creativity, as well as the relationship between information and communication and creativity. Hence, the purpose of this research is to examine the influence of organization integration and information and communication on R&D engineer's creativity. At the same time, the researchers also examine the mediating effect of knowledge exchange on the above-mentioned relationships. Survey data was rendered from a sample of 140 R&D engineers working in the ODM companies in Malaysia. The researchers employed Structural Equation Modeling (SEM) using SMART-PLS version 2.0 package to analyse the model. The results indicated that only organizational integration has significant positive influence on both knowledge exchange as well as R&D engineer's creativity. The knowledge exchange has also shown the mediation effect on the direct relationship between organizational integration and creativity. The results offer several suggestions to ODM firms in Malaysia. In particular, organization can manage organization integration effectively and encourage the knowledge exchange among R&D engineers in order to increase the R&D engineer's creativity. The paper concludes with the limitations and implications, as well as suggestions for future research.

Mathematical Thinking as a Basis for the Formation of Intellectual Capital Analyst

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Abstract: The main subject of present article is the question of competitive recovery of the specialists graduated from Almaty Management University (ALMAU) and specialized in "Finances" among graduated students from other universities that are going to work in international companies and enter into the global industrial process. The hypothesis of the importance of mathematical disciples for the formation of mathematical thinking of financial managers and analysts, which forms the intellectual capital of the enterprise, was taken as a draft version. The empiric data received as the result of analysis of the influence of mathematical disciples on the mental action of students specialized in "Finances" was used for the hypothesis testing. This data was compared with the results of mental action of the students specialized in "Information systems" of ALMAU that study much more mathematical disciplines by the reason of their qualification particularity. Furthermore, present article justifies the recommendations for step-by-step improvement of the mathematical thinking among the

students specialized in "Finances" by means of emphasized education on the basis of the criterions of mental action explained further on, and making of a few appropriate changes in the education plan. **The purpose of this work** is to demonstrate the hypothesis of the formation of analytical thinking among the students of economical disciplines on the basis of mathematical thinking that allows the wide usage of analytical methods of decision making. **The object of research:** Mental action of ALMAU students specialized in "Finances" and "Information systems". **Variables:** Student's mental action, models of mathematical thinking. **Methodology:** Empiric methods for testing of the hypothesis based according to Bloom's taxonomy, on the various methods sorting out of Anderson and Krathwohl, R. Paul and L. Elder, N. Periazev and V. Krutetskiy, on the method of problematic strategies. During the period of mathematical disciplines learning, the teachers has used a new direction of "numerate behavior" **The results of research:** necessity of using greater time period for the formation of mathematical thinking for the development of specialized knowledge, ensuring the formation of skills solving analytical problems. The preparation of recommendations in organization of mathematical thinking for financial analyst and the formation their intellectual property. **The evaluation criteria** - usages of the received recommendations for changes in the curriculum "Finance" section of elective subjects University ALMAU with a view to their practical use **Conclusion** - the formation of intellectual thinking is based only on mathematical thinking and requires a systematic study of mathematical disciplines.

Keywords: models of mathematical thinking, intellectual potential, making decisions, Intellectual Capital analyst

Information Entanglement: Developments in Cognitive Based Knowledge Acquisition Strategies Based on Big Data

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Abstract: The growth of Information Communication Technologies (ICT) along with the exponential growth of data in all fields is prompting newer ways to apply both critical thinking and conceptualizing skills in making meaningful associations for effective decision making. Conceptual skills are being enhanced through the use of interactive mapping techniques connected to online resources. The ability to see connections with data and relate it to trends analysis is a key aspect in utilizing Big Data. Coupled with the rise of Big Data is also the development of faster computing systems which can collate and summarize data queries initiated by the enduser. The age of quantum computers whereby searching techniques will be accelerated beyond current abilities of the processing speeds of traditional digital processors will necessitate different ways to display information and analyze it. Natural language and semantic search strategies, search engine advancements and AI developments are introducing newer approaches to data analysis. By using both search techniques formulated by humans and combining them with results obtained from machine assisted learning a new era of information access has evolved. Finding information using newer cognitive based modeling systems to help

retrieve information as well as understanding the growth of data will be outlined. Visual demonstrations of new information modeling systems will be discussed and the implications of accessing data for the eventual solutions to complex problems will also be discussed. The rate of change in knowledge accumulation necessitates that search strategies be fluid and generative in their design rather than static or sequential. Knowledge management also needs to be integrated with a dynamic structure with search strategy designs, which can constantly utilize newer forms of data analysis. The preparation and planning for installing a progressive knowledge based management and acquisition system in educational institutions needs to be deployed sooner rather than later so as to better prepare the next generation of Thai students entering the newly formed ASAEN community. In order for these new skills to be developed a new form of pedagogy needs to be implemented in all educational institutions from K-16 so human capital can be relevant and capable of understanding the growth of big data and its application to society.

Employability, a Topic for Knowledge Exchange to Strategically Positioning Higher Education Institutions

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Abstract: Over the last 2 decades employability has worldwide become a key item on the public agenda due to changing labour market requirements and changing career perspectives. This has sparked a strong debate around Higher Educational Institutions' (HEIs) fitness for purpose whereby providers of Higher Education (HE) have been subject to accountability pressures from societal and economic stakeholders alike. Aside of a perhaps required re-alignment of the HE proposition HEIs provide with the knowledge economy, a larger question arises how a HEI can position itself in a competitive and sustainable manner in the 21st century Knowledge Society as a value adding entity in this knowledge system. The pertinently growing attention by national and supranational governmental organizations around access to information and knowledge for all undoubtedly impacts the role of HE in this emergent Knowledge Society. This paper aims to explore the proposition of a conceptual framework for sustainable and competitive positioning of a HEI in light of the changed realities the 21st Century economy has brought forward. The argument made in this paper uses notions of ecosystems, networking and knowledge flow as underpinning theoretical concepts. Particular focus will be drawn to the value and necessity of relationship development and maintenance by HEI's with their stakeholders in order to be appropriately responsive to the highly dynamic context in which they operate with

they eye on short and long term competitiveness and sustainability inclusive of consideration to the social responsibility HE holds in its "raison d'être". The paper presents a holistic system view of the Knowledge Society catalyzed by HE and highlights embedded interconnected entities interacting and transforming in a dynamic environment. The framework attempts to indicate the potential value of employability as a key - and perhaps the number one - focus for a HEI for the next decades to come for purposeful cultivation of and engagement in synergistic relationships with external stakeholders. This paper aims to spark discussions and research around the development of appropriate society wide knowledge networks catalysed by HEIs as engines for the development of human capital of the 21st Century.

Keywords: knowledge economy, knowledge society, knowledge ecosystem, Higher Education, employability, sustainability, human capital

Innovative Mindset and Management Styles: An Intellectual Capital Approach

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Abstract: To obtain competitive advantage in nowadays Europe, it is crucial for organizations, especially small and medium sized enterprises, to utilize knowledge efficiently and to enhance their innovation potential. Since organizations are now dependent on knowledge of their employees and other stakeholders, it is essential to learn to find ways to promote knowledge flows within the organizations and also knowledge flows between the organizations and their environment. Managing this knowledge, e.g. their intellectual capital, is therefore becoming increasingly important for future-oriented organizations. Through the concept of intellectual capital management, each company is able to evaluate, report and develop its intellectual capital and gain the best from knowledge flows. The main purpose of this study is to analyze the differences in management style focused on principles of intellectual capital concept between managers who consider innovations as highly important source of achieving company goals and managers with opposite conviction (i.e. managers with and without innovative mindset). We base our analysis on questionnaires survey among 145 small and medium sized organizations based in Slovak Republic, Europe. As variables defining the level of intellectual capital management in organizations, two characteristics of the organization have been selected: The use of strategic management in the organization and the intensity of initiatives contributing to building the individual areas of intellectual capital of the organization. The topics of intellectual capital management in organizations as well as the creation of their sustainable competitive advantage through innovations are actual issues within local region, where several activities supporting intellectual capital reporting and management are being implemented into organizations at the present. The findings and conclusions of this paper can serve as supporting facts in promoting the mentioned activities.

PHD Research Papers

Green Intellectual Capital Resources as Drivers of Firms' Competitive Advantage

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Abstract: In response to the change of society's environmental agenda in this knowledge driven economy era, solutions to existing environmental problems depend heavily on how knowledge resources are deployed. Originating from the basic tenet of natural resource-based view (NRBV) of the firms, the intellectual capital perspectives are integrated into the research model to further explain that the competitive advantage of companies are influenced by unique resources and capabilities to address the environmental issues. Capabilities to address the environmental issues are generated from the accumulation and management of green intellectual capital resources. However, the contribution of green intellectual capital resources to the corporate value and competitive advantage are not indicated in the traditional financial statement. Therefore, the current study is aimed to provide evidence that management of green intellectual capital resources is a worthy investment to companies. This study is conducted to examine the relationship of green intellectual capital resources as important predictors into firms' competitive advantage. Unlike the previous literatures, the study classified green intellectual capital into green human capital, green innovation capital, green organisational capital and green relational capital. Hypotheses are tested based on data collected using mail survey to managers of Malaysian manufacturing companies. Data collected from 110 managers was analysed using Partial Least Square (PLS) method version 2.0. From the empirical findings reported in the pilot survey study, green human capital, green innovation capital and green relational capital directly and positively impact firms' competitive advantage. Since this study was separated between green innovation and organizational capital, it obtained different results from prior research. The findings contributed to the body of knowledge by describing the role of green intellectual capital resources from the perspective of Natural resource based theory and intellectual capital framework. The findings provided by this study may enable managers to think seriously on enhancing the investment in green intellectual capital resources.

Keywords: green intellectual capital, green human capital, green innovation capital, green organizational capital, green relational capital, competitive advantage

Tacit Knowledge Externalisation Over Social Intranets: Developing a Conceptual Model

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Abstract: Employees' experiential knowledge is an organisation's superior strategic asset, as by being mainly tacit and thus intangible, it is difficult to copy or substitute. Recently, organisations have been adopting social intranets, intranets featuring social software, to support employees' tacit and explicit knowledge sharing. By enabling employees to connect and communicate in informal and open environments, user-generated social intranets facilitate the conversion from tacit into explicit knowledge. Once externalised, employees' tacit knowledge can be used to increase competitive advantage. However, there is little literature to aid understanding of how social intranets support tacit knowledge externalisation processes among employees. Therefore, the purpose of this paper is to outline the potential of social intranets, particularly the combination of social intranet technologies and their methods, in supporting tacit knowledge externalisation among employees. Based on a literature review, this conceptual paper contributes to theory development by integrating the literature on tacit knowledge externalisation and social software concepts. The results show that social intranets may support tacit knowledge externalisation by enabling new methods for converting tacit knowledge into explicit knowledge that were not possible with previous forms of information and communication technologies.

A new Integrative Model on Trust in Organizations: A Quantitative Approach for Application in Strategic Management

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Abstract: Being of a particular character 'trust' eludes a purely strategic approach as it has to be balanced with the special needs of a fragile human resource. Still trust is a resource of strategic relevance since it establishes security, reduces complexity and opens potentials being bigger than simply the reduction of 'cost of control'. These characteristics are of special interest for management, as competent action is always bound to problem-solving-abilities under circumstances of insecurity. Further to this there are numerous situations where control is not applicable and where we simply don't have full knowledge. Also trust is particular as it bypasses financial efforts and grows through usage; an investment of high amortization though that deserves closer attention of management especially valid in times of skilled worker shortage

and with respect to organizational learning as a valuable competitive advantage. The purpose of this paper is to develop direct and indirect measurable on the impact of trust on employee competence utilization and its subsequent realization in a strategic scorecard approach. This is based on a new integrative model in the organizational context applicable for strategic management. With this the objective of the paper is to answer the question if culture of trust is an adequate instrument for strategic management. The empirical evaluation of the model is based on a survey directed to employees of selected companies in a pragmatic mixed methods application. The selected view considers the trust level of employees with regard to management as another individual and the organization itself; personal and institutional trust mechanisms are affected. Thus the employee evaluates its management. As a result, the empirical study suggests that it is possible to specify frameworks for the establishment of trust, and that its impact on competence utilization is moreover significant. However the concept of trust creates challenging requirements on managers. Based on the assumption that employees basically think and act in the sense of the company, benevolence and goodwill must be involved to avoid an opportunistic approach. Further to this accountability, shared norms and freedom to take responsibility need to be proven by behavior. The allowance of constructive seriously taken criticism, problem solving attitude, the acceptance of decisions are further key points for trust supporting frameworks that have to be accepted and shown through behavior.

Intellectual Capital Management and Sustainable Competitive Advantage: A Proposed Model for Malaysian PLCs

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Abstract: In the knowledge-based economy, many companies' endeavour is to create long-term value. Intellectual capital management is a tool used by companies to manage their intangible resources such as knowledge, innovation and intellectual property. In managing their companies, today's managers engage in activities which help them to develop the intangible resources such as converting knowledge into competencies. Successful deployment of intellectual resources not only offers admission to multiple market opportunities to the companies, but also improves business performance and share price. The management of intellectual capital is intimately connected to the management of knowledge-based assets in the pursuit of competitive advantage. The notion of competitive advantage reflects the imperative that businesses must now embrace a future orientation. Though it is recognised that intellectual capital management promotes sustainable competitive advantage, intellectual capital management in

Asian countries including Malaysia is not as rigorous as countries in the West. In the management of intellectual capital, companies attempt to grow their stock of intellectual capital (intangible resources) if they wish to compete successfully in the newly emerging knowledge economy. However, it is still unclear to the top management as to which types of intangible resources are valuable and need to be managed in order to create value and attain a sustainable competitive advantage. Basically, this paper critically reviews some of the intellectual capital management models to illustrate the various facets an organisation must consider when managing intellectual capital. Simultaneously, the component elements of intellectual capital are also identified, defined and discussed. It then proposed a model for Malaysian companies to manage their intellectual capital to attain a sustainable competitive advantage. Only when intellectual capital management is present, the intellectual components of the organisation can be tapped effectively. Furthermore, the proper management of intellectual capital will help the organisations realise the defined objectives in all aspects of organisational performance.

The Role of Leadership on Intellectual Capital as Strategy Towards Hospitals' Performance

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Abstract: Malaysian healthcare industry is facing a challenging outlook, spilling from a rapid changing in operating business environment, including spiralling operating cost and high expectation on the quality of delivery system in healthcare. Malaysia has decided to position itself as a hub for healthcare services. There are two types of hospital in this country, either funded by government or funded by private sector. This research is focusing on hospital which is funded by private sector or known as private hospital due to the fact that these hospitals must be focusing on efficiency in order to sustain in healthcare industry. It is vital for the private hospital to plan and manage their resources wisely and strategically in order to deliver high performance and also growth. One of the resources that are important and critical is Intellectual Capital(IC). Healthcare industry which is highly dependent on Human Capital, Structural Capital, Innovation Capital and Relational Capital is one of the industries that should embrace the importance of managing its IC. A shortage or high turnover of skilled workforce in healthcare is always a real challenge for hospitals. The demand for a skilled worker is high in healthcare sector which definitely will give a significant impact on IC of an organisation especially hospital. In addition, a view and characteristic of the leader which can be translated as

leadership style in these private hospitals are also playing a major role in ensuring that a high performance services can be delivered. Hypothetically, managing of IC effectively will result in enhance hospitals' performance. Currently, there are few studies that evaluated the relationship between leadership styles, IC and hospital performance. However, this study focuses on how leadership styles either transformational leadership or transactional leadership style would affect the development of IC as a strategy that would give impact to the performance of private hospitals based on Upper Echelon Theory. The objective of this paper is to propose a framework for research to study the above issues. By acknowledging this reality, the management of the hospitals need to formulate a sound strategic planning of IC and this strategic planning should be executed by determine, focus and highly capable leaders.

Framework of Knowledge-Based System for Practising Long Jumpers Using Movement Recognition

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Abstract: The long jump is one of the standard events in modern Olympic Games. It is a part of track and field. The long jump comprises of four phases: Approach run phase, Take-off phase, Flight phase and Landing phase. Each phase effects to construct the flight distance. If athletes execute right actions in each phase, it will increase their performance. Athletes need some coaches or experts to provide them suggestions. Nonetheless, there is a lack of experts in this field. In this paper, we demonstrate a new framework of a knowledge-based system for training long jumpers in order to support trainers or coaches in practising and monitoring the long jumping movement. The idea is to combine the knowledge engineering methods with computer vision techniques for constructing the expert system. The system will be able to capture movements of the long jump athletes in each phase, analyse and give the recommendation based on knowledge captured from experts.

Supporting Student Management With Business Analytics in the UK Higher Education Sector: An Exploratory Case Study

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Abstract: Providing students with the best learning experience and ensuring their academic success throughout their university lifecycle has been a serious challenge for Higher Education Institutions' (HEIs). Whilst advances in digital technologies have enabled HEIs to collect more data in various forms (Big Data) and as some HEIs begin to realise the strategic potential of using Business Analytics (BA) to support student management, many HEI managers are still sceptical about the use of BA even though they are struggling to make sense of the ever grow-ing amount of data and information. A few BA studies suggest that large commercial compa-nies that use BA perform better than those that do not in making better decisions and creating competitive advantages; however, little academic research exists either to understand the current challenges faced by HEI managers in student management in dealing with big data or explore how BA can be utilised to support student management. Experts in the analytics field have also stated that most literature on analytics focuses on the institutional benefit and not the staff-student benefit. These knowledge gaps constrain HEIs abilities to improve student experience and academic success. Therefore, this research seeks to understand the managerial challenges in student management and explore the use and impact of BA for improving stu-dent experience through a date driven student management in UK HEIs from an organisational information processing perspective. Employing a qualitative methodology, this research re-ports an exploratory case study in a UK university with semi-structured interviews. The initial findings of this research help to develop an understanding of the key challenges faced by the HEI managers in student management, and a preliminary framework for future research on the use and impact of BA student management. This research suggests that BA should play a critical role in effective student management, which therefore leads to better student experi-ence and academic performance.

Keywords: business analytics, organisational information processing theory, higher education institutions (HEIs), student management, Big Data

New Service Development in Knowledge-Intensive Business Services: Literature Analysis

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Abstract: The paper presents and discusses the findings of the review of the extant literature related to New Service Development (NSD) in Knowledge-Intensive Business Services (KIBS). In particular, the study focuses on the existing models of the New Service Development process. It represents the first step for PhD research dedicated to NSD process in KIBS sector, and intends to analyse some of the models of the NSD process available in the literature. This kind of analysis has not been undertaken by the research about the topic until now. It touches all aspects concerning the NSD process. Starting from the brief description of the research evolution, it introduces basic concepts and definitions, describes main models, and illustrates the issues closely connected to the NSD activity, like concept generation, enhancing creativity, promoting client cooperation in the process and assessing the outcomes of the NSD process. One of the main problems in the case of KIBS companies is if the NSD models developed theoretically can work in practice or new services appear occasionally without any systematization.

A Component Diagram Presenting a Gamified Environment Supporting Customer Engagement in a Service Innovation Process

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Abstract: A large share of innovative efforts in business is related to the development of new services. Service innovation can increase organizations' competitive advantage, and enhance their relationship and success with their customers. The main objective of this research in progress is to study how the success rate of service innovation could be improved by strengthening customer engagement through the use of gamification. A detailed component diagram presents the relationships that exist between the various gamification elements in the context of our study. The diagram is based on a deep review of the literature.

Text Mining Analytics as a Method of Benchmarking Interdisciplinary Research Collaboration

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Abstract: This paper introduces the process of adopting and implementing modern text mining approaches of analysis within the Cluster of Excellence (CoE) Tailor-Made Fuels from Biomass (TMFB) at RWTH Aachen University and presents initial results of the analysis of research output by use of common clustering algorithms, namely Principal Component Analysis and k-means. As one main part of this paper the data driven approach is classified into benchmarking efforts, which are part of the research work of the so called Supplementary Cluster Activities. The SCA, supporting the cluster management, are initiated in order to promote interdisciplinary collaboration of CoE researchers with different disciplinary backgrounds. This cross-linking is aided by means of knowledge engineering and knowledge transfer strategies, such as the exploration of synergies and benchmarking of research results as well as progress. In this course an adoption of current benchmarking efforts to the specific cluster research framework conditions is described. At this, in case of differing data sources according to those used in widespread business organisational benchmarking, possible TMFB data sources are outlined and a selection for analysis is reasoned. While benchmarking is usually differentiated in internal and external benchmarking, in this case focus lies on internal analysis of publications in order to reflect research work. Benchmarking of publications is used and implemented to identify (best) methods, practices and processes of CoE to improve the research organization. Second major part and central question within the scope of this paper is in which way text mining respectively clustering algorithms are sensitive applicable to TMFB publications and are able to be used as benchmark for research clusters. Thus thematically priorities of TMFB researchers will be investigated in order to create an overview according to research topics, keywords and methods. In case of an outlook further steps, e.g. dealing with generated results, data visualisation or further acquisition of data corpora, are formulated.

Keywords: benchmarking, interdisciplinarity, text mining, clustering, k-means, principal component analysis

Knowledge-Based Standard Updates and Changes in a Testing and Certification Company: A Case Study

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Abstract: In this paper, a Knowledge-based approach for dealing with standard updates and changes is presented for a Testing, Inspection and Certification (TIC) Company. Due to the high recall rate for products produced in China, as well as frequent changes to standards and regulations and the challenge posed to the testing laboratories, they are deficient in the relevant knowledge to deal with internal technology preparation for the increasing rate of standard updates which increases the pressure on testing service providers to transform their strategic goals into achieving shorter technology development cycle times and delivering more responsive customer service to sustain their long-term competitive advantage. The system is built based on a rule-based reasoning algorithm. Since the design mechanism of the Knowledge-based System (KBS) relies on a thorough understanding of the landscape of knowledge employed in the process in order to provide a reference for incorporating the right mix of knowledge items into the system, a knowledge audit is conducted to evaluate the knowledge need of the process. A prototype KBS was developed and successfully trial implemented in a case study in a prestigious testing company. Encouraging results were obtained.

Keywords: knowledge-based system, knowledge audit, testing, certification and inspection

Non Academic Paper

Deep Learning: The Great Challenge to Innovate: Highlighting Colombia's Food Industry

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Abstract: In this century, organizations must read and understand their environment, develop compatible capabilities and transform if necessary to adapt to the new rules of the game of value and take appropriate decisions that will maintain them in the future. The ability to generate knowledge-based value not only depends on the individual company, but also depends largely on the ability to generate value of both the sector to which the company belongs and the economy of the native country. This document is the result of the analysis of the signals of the sector, second component of the preliminary stage of the DECK Study carried out by Bio Gerencia Virtual®. The main official sources of the food and beverage industry in Colombia were analyzed to detect the potential of this industry to create value by transforming knowledge into innovation. From analysis of the industry variables, signals that can become the basis for indicators are identified and propose a path of positive development for the sector: transforming a traditional sector into one driven by knowledge. Peter M. Senge and others have referred to the deep learning cycle as the essence of the learning organization. When major changes are required, a deep learning cycle operates and can happen individually or collectively. In the Paisa Culture Prototype, a prototype of Knowledge Management for Innovation, whose base is the DECK Study, analyzes of specific sectors of the Colombian economy is included. If we understand each sector as a team able to create what it wants to create, the deep learning cycle will be relevant to each economic sector. In particular, the food and beverage industry of Colombia depends largely on the rich biodiversity of Colombia. The greatest opportunities for the sector can be found in the governmental purpose of transforming the Colombian industry. The food sector is at the center of this transformation; but, according to the findings, if the deep learning cycle is not activated, the transformation will not occur; and therefore neither will there be knowledge-based innovation. If the sector does not renew its thought model, it will not become an innovative sector. In the second part of the document, and with the representation of information of the business learning loop proposed by Haeckel and Nolan, work fronts in the sector are derived and some considerations are presented, taking into account issues of learning required to implement a traditional industry to become an innovative industry driven by knowledge. The outline of the document provides elements that are confined to the Detect Function and Interpret Function within the business learning loop. This cycle serves as a starting point to understand the deep learning cycle. It also refers to the collective learning that is perceived from the analysis that will be needed to increase the ability to compete in the sector.

Keywords: food industry, sector analysis, Colombia, deep learning, prototype, Paisa Culture, knowledge-based innovation

Work In Progress Paper

Utilization of Commanders' Individual Experiences in the Swedish Armed Forces

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Abstract: Organizations which operate in changing environments ought to collect process and create new knowledge frequently, to make improvements and adapt. Due to a combination of international engagements and assignments of territorial defense in the Baltic Sea region, the Swedish Armed Forces is frequently exposed to new tasks, geographical territories and environments. The requirement to transform and adjust to new and, perhaps unknown, duties, give topical interest to organizational learning. The effort to reform and improve military organizations is not a new phenomenon, and is generally maintained as a part of the daily routines (similar to civilian organizations) and is often referred to as lesson learned processes. A learning organization is able to learn and improve through numerous of activities viz. safety board work, formal training, follow-up procedures, incident investigations, briefings and risk analysis. Organisational learning is achieved by the learning of its own members or incorporation of new members who will bring new knowledge with them into the organization. This indicates that it is most important to include the organisations members in a learning process, since the organization itself cannot know or learn anything. The aim of this work in progress paper is to visualize and share a work in progress case, accomplished in cooperation between the Swedish Defence University and the Swedish Armed Forces. Our research involves is an attempt to actually develop and test a method for transforming individual experience into sharable and operational knowledge in the Swedish Armed Forces.

Keywords: learning, knowledge acquisition, individual experience, armed forces, knowledge utilization

Late Submission Paper

Knowledge Management Methodology: Developing a 'Middle-Range Thinking Approach' for Knowledge Management Research

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Abstract: In light of the fact that KM research and practice embraces a wide range of activities and interest, complexity emerges when consideration is given to the actual conduct of research to be undertaken. Drawing from numerous literature, KM covers, on the one hand, technological interventions (objectivist perspective) that aim to support knowledge sharing, while on the other hand, it also covers the appreciation of social approaches (practice-based perspective) that emphasise the importance of people in sharing knowledge. Due to the fact that KM covers such a broad spectrum of area, it calls for greater scrutiny into the way that research is undertaken. The aim of this paper is to discuss the methodological issues within which the KM study should be undertaken. The paper considers the appropriateness of a particular methodology stance for the KM research while focusing on research processes. In particular, a phenomenological approach to middle-range theory is used to develop a comprehensive framework of KM as context of the study. The rationale for using a phenomenological to middle-range theory is provided from the viewpoint that it requires researchers to focus on developing theory which produces explanations that are arguably a more realistic depiction of the hard/technical and soft/social nature of KM practices.

Keywords: knowledge management methodology, knowledge management research, phenomenology, middle-range theory

Research Jotter

Research Ideas can happen at any time – catch them in writing when they first occur