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Welcome Message from the Conference Co-Chairs

Gerald Grant
Sprott School of Business,
Carleton University, Canada

Felix B. Tan
AUT University,
New Zealand

Welcome to Niagara Falls and to the 2008 International Conference on Information Resources Management. Conf-IRM replaces the annual Information Resources Management Association (IRMA) International Conference, which has been recently discontinued. Conf-IRM is now an Association for Information Systems (AIS) affiliated event.

Conf-IRM provides a peer-reviewed forum for researchers from across the globe to share contemporary research on developments in the fields of information systems and information management. It seeks to promote effective and vibrant networking among researchers and practitioners from around the world who are concerned about the effective management of information resources in organizations.

The central purpose of the conference is to foster the development of emerging scholars in areas relating to management of an organization's information resource. The group of scholars who regularly participate in the annual IRMA conferences are at a similar stage of their career development and will benefit from an annual meeting of like minds. A feature of Conf-IRM is the pre-conference day of career/research development workshops.

As a smaller conference, Conf-IRM offers a unique opportunity to meet colleagues from around the globe. Approximately 65% of participants at Conf-IRM2008 are from outside North America (USA/Canada) – for instance, about 23.5% from the Asia Pacific, 34% from Europe, Middle East and Africa, and 7.5% from Latin America. This has continued the trend of IRMA conferences in recent years where participation was truly international. This has spawned many early and mid-career opportunities for cross-nation and cross-cultural collaboration.

Welcome Message from the Program Co-Chairs

Jairo Gutierrez,
University of Auckland,
New Zealand

Lech Janczewski,
University of Auckland,
New Zealand

Welcome to Niagara Falls and to the 2008 International Conference on Information Resources Management (Conf-IRM). There has been significant support from colleagues around the world to continue the tradition of the IRMA International Conferences. We are very pleased with the submissions received for this inaugural Conf-IRM conference. The program consists of 64 full papers, 14 research-in-progress (RIP) papers, two professional development workshops and four interesting panel discussions.

When organising the program we decided that rather than having a poster session for RIP submissions we would give these authors the opportunity of sharing their work during normal sessions using a mini-presentation format. We felt this will give these presenters more opportunity to interact with colleagues and collect valuable feedback. You will recognise those papers by the R suffix attached to their identification number.

We would like to thank the chairs of the 15 Tracks represented in this conference for their efforts and we would also like to extend our appreciation to the colleagues who served as reviewers for the different submissions to the conference.

Finally, we trust that you will enjoy Conf-IRM 2008 and we are looking forward to meeting you during the conference.

Lech Janczewski and Jairo A. Gutiérrez
Program Co-Chairs

Conference Schedule Overview

Sunday, May 18, 2008

TIME	EVENT	PAPERS/PANELS	LOCATION
0800-1030	IT Service Management Workshop		Hennepin North
1030-1100	COFFEE BREAK		Hennepin Hallway
1100-1230	IT Service Management Workshop		Hennepin North
1230-1330	LUNCH (on own)		
1300-1500	Faculty Development Workshop		Hennepin North
1500-1530	COFFEE BREAK		Hennepin Hallway
1530-1600	Faculty Development Workshop		Hennepin North
1830-2100	OPENING RECEPTION		Oakes Foyer

Monday, May 19, 2008

TIME	EVENT	PAPERS/PANELS	LOCATION
0800 - 0845	CONTINENTAL BREAKFAST		Hennepin Hallway
0900 - 1030	Keynote Address		Hennepin South
1030 - 1100	COFFEE BREAK		Hennepin Hallway
1100 - 1230	Session 1: Data Warehousing	5F, 16F, 46F, 62F	Auditorium
	Session 2: E-Business and E-Government Applications	2F, 6F, 12F, 20F	Hennepin North
	Session 3: Outsourcing and Offshoring	21F, 84R, 3F, 60F	Hennepin South
	Session 4: Human Side of IT	30F, 43F, 53F, 67F	Chippawa Room
1230 - 1330	LUNCH		Cut Above Steak House
1330 - 1500	Session 5: E-Business and E-Government Applications	33F, 35F, 36F, 42F	Hennepin North
	Session 6: IS Research Methods	14F, 61F, 65F, 75F	Auditorium
	Session 7: Human Side of IT	41R, 64R, 87F, 74F	Chippawa Room
	Session 8: Panel Discussion	68P	Hennepin South

1500 - 1530	COFFEE BREAK		Hennepin Hallway
1530 - 1700	Session 9: IS Research Methods	76F, 77F, 82F, 51R	Auditorium
	Session 11: Supply Chain Management	79F, 85F, 93R, 91F	Hennepin South
	Session 12: IT Security and Privacy	18F, 19F, 40F, 44F	Chippawa Room
1900 - 2200	CONFERENCE DINNER		Oakes North East

Tuesday, May 20, 2008

TME	EVENT	PAPERS/PANELS	LOCATION
0800 - 0900	CONTINENTAL BREAKFAST		Hennepin Hallway
0900 - 1030	Session 13: Panel discussion	37P	Auditorium
	Session 14: IT Architecture and Standards	1R,10R, 25F, 52F, 66F	Hennepin North
	Session 15: IT for Development	48F, 83F, 17F, 50F	Chippawa Room
1030 - 1100	COFFEE BREAK		Hennepin Hallway
1100 - 1230	Session 16: IT Security and Privacy	56F, 70F, 71F	Chippawa Room
	Session 17: Panel discussion	92P	Hennepin North
	Session 18: IT Service Management	11F, 15F, 23R, 26R, 29R	Auditorium
1230 – 1330	LUNCH		Hennepin South
1330 - 1500	Session 19: Knowledge Management	88R, 7R, 27F, 32F, 38F	Hennepin North
	Session 20: IT in SMEs	86F, 49F, 4F	Chippawa Room
	Session 21: Mobile Business	81F, 24R, 72F	Auditorium
1500 - 1530	COFFEE BREAK		Hennepin Hallway
1530 - 1700	Session 22: Knowledge Management	57F, 58R, 89F	Hennepin North
	Session 23: E-Collaboration	31F, 63F, 73F, 80F	Auditorium
	Session 24: E-Business and E-Government Applications	69F, 90F, 34R, 78R	Chippawa Room

[End of the Conference]

Keynote Speaker

Professor Detmar Straub

The J. Mack Robinson Distinguished Professor of Information Systems at Georgia State University, Detmar has conducted research in the areas of Net-enhanced organizations (e-Commerce), information security, technological innovation, IS methodological issues, and international IT studies. He holds a DBA (Doctor of Business Administration) in MIS from Indiana and a PhD in English from Penn State. He has published 140 papers in journals such as MIS Quarterly, Management Science, Information Systems Research, Organization Science, Journal of MIS, Journal of AIS, Information & Management, Communications of the AIS, IEEE Transactions on Engineering Management, Communications of the ACM, OMEGA, Academy of Management Executive, and Sloan Management Review.

Detmar has been selected as the incoming Editor-in-Chief of MIS Quarterly, with a term starting in January of 2008. Previously he has served as Senior Editor for MIS Quarterly, Information Systems Research, Journal of the AIS (JAIS) and DATA BASE. He was also Co-Editor of DATA BASE for Advances in Information Systems. Previously, he was Associate Editor for Management Science as well as an editorial board member on a host of other journals. His consultancies with industry have been in the areas of information security, e-Commerce, and technological innovation.

He teaches masters level courses at Georgia State University in: eCommerce Strategy, IT Strategies for Management, Systems Integration and IT Outsourcing, International IT Policies and Issues, and Computer Security Management, and doctoral seminars in Quantitative Methods in IS Research, & Experimental Design.

He serves as Director of Research and Doctoral Programs in the Robinson College of Business. He is former VP of Publications for the Association for Information Systems. He was appointed AIS Fellow in 2005.

Abstract

"Pursuing New Directions at MIS Quarterly"

The "A" journal playing field varies over time, but MIS Quarterly (MISQ) has frequently been well positioned in this highly contested field. Journal impact factors (JIFs) are a citation-rate measure of this achievement, but what is even more interesting is how citations relate to the ultimate purpose of a journal. Citations mean that articles are being utilized in subsequent work by the field. The goal of a journal should be to publish work that will be heavily cited, and this is a surrogate for having published good or occasionally even great work.

Since MISQ has been performing well according to the extant standards, does it make sense to make any changes at the journal or should a new editor-in-chief meekly assume a caretaker role? The argument is made that organizations need renewal or they begin to decline and, without succor, die. In particular, there are several initiatives at MISQ that will hopefully assure that the journal continues to be healthy. Discussed at greater length in the talk, they are: diversity, not rejecting good papers, and readability as well as a set of other exciting, new directions.

Conference Steering Committee

Sue Conger
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Carleton University, Canada

Jairo Gutierrez, University of Auckland, New Zealand

G Harindranath
Royal Holloway, University of London, UK

Lech Janczewski,
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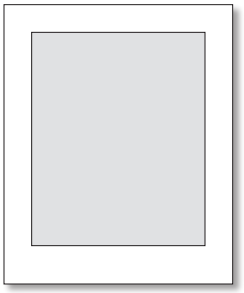
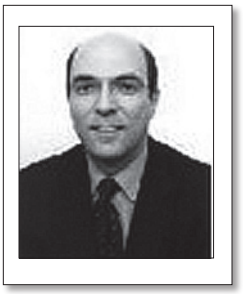


Murray Jennex,
San Diego State University, USA



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Teresa Torres, Universitat Rovira i Virgili, Spain
Yanbin Tu, Robert Morris University, USA
Reena Yoogalingam, Brock University, Canada
Youlong Zhuang, Columbia College, USA

Conference Information

Registration

Registration will be available in the Hennepin Hallway on the ground floor of the Sheraton Fallsview Hotel and Conference Centre at the following times:

Sunday, May 18, 8:00 a.m. to 5:00 p.m.
Monday, May 19, 8:00 a.m. to 12:00 noon

Badges

Name badges are provided in the registration packages. Badges are required at all times when attending conference events.

Meeting Rooms

All meeting rooms are on the ground floor of the Sheraton Fallsview Hotel and Conference Centre. We will be using the Hennepin North and South and the Chippawa meeting rooms as well as the Auditorium.

Cyber Café

Computers will be available for the use of conference attendees in the Ontario Room on the 3rd floor of the hotel during regular conference hours, except during evening events.

Meals

If you requested a special meal, you will find a meal ticket in your registration package. Please give this to the server to receive your special meal.

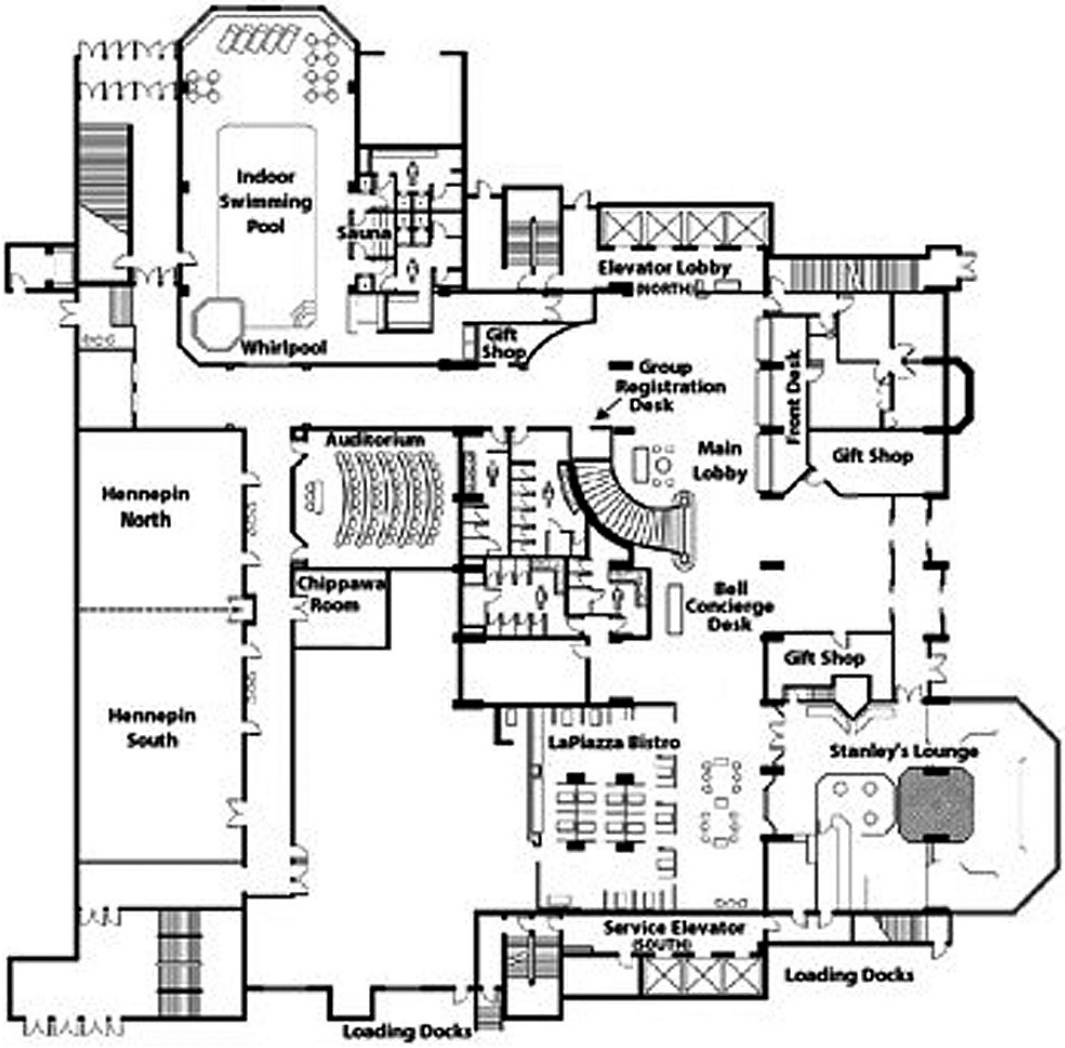
Attire

The Conference attire is business casual. We suggest you dress in layers since the average daily temperature in Niagara Falls in May is about 17 °C

Floor Plans

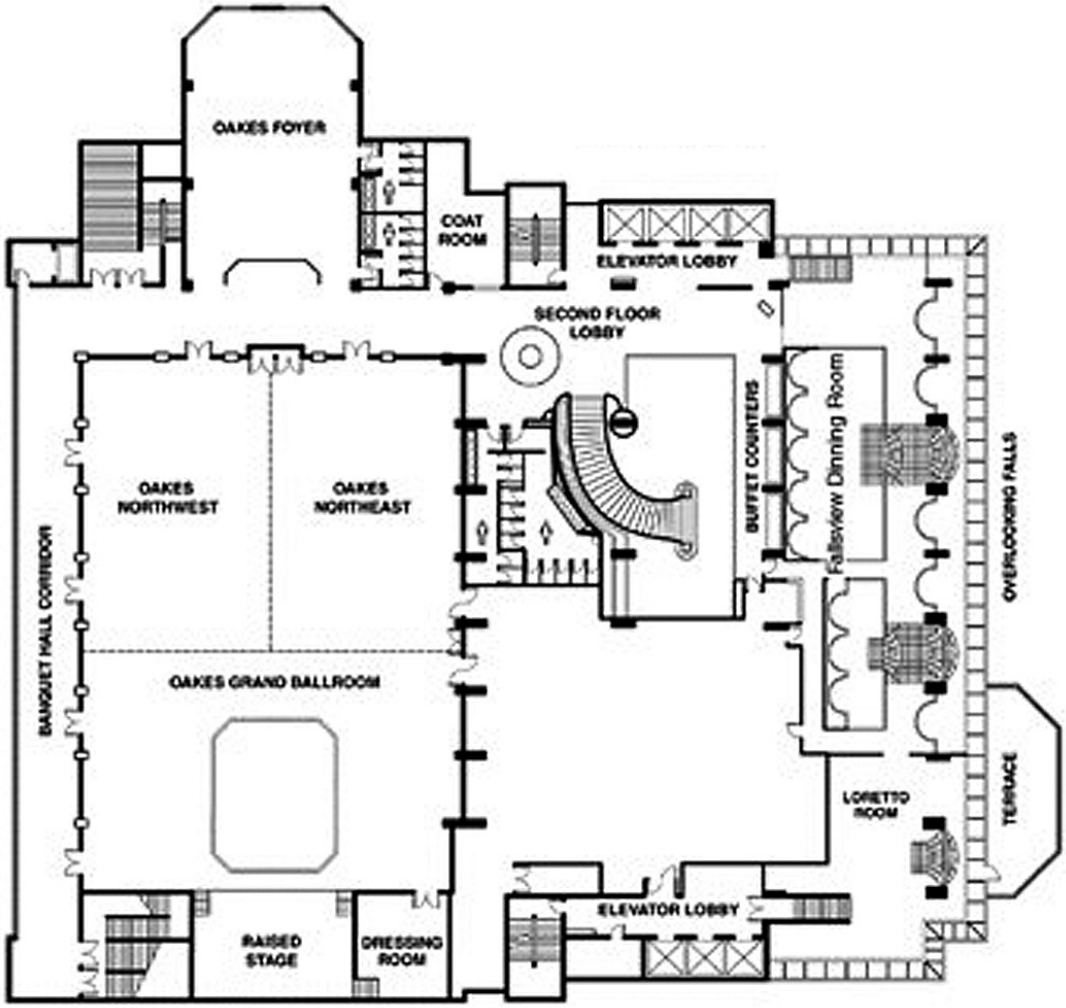
Ground Floor

Auditorium, Chippawa & Hennepin Rooms



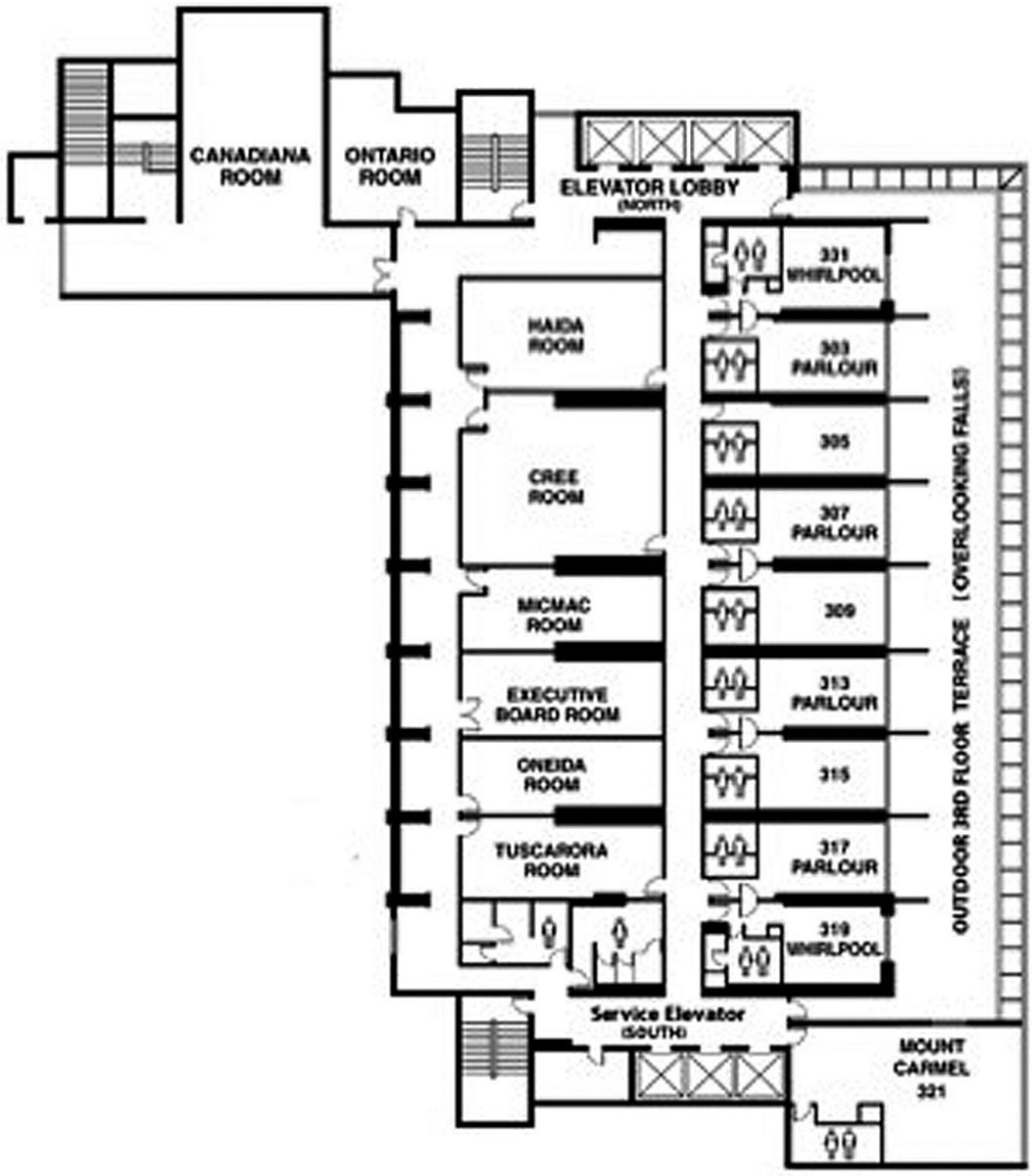
Second Floor

Oakes Foyer & Meeting Rooms



Third Floor

Ontario Room



Conference Schedule

Sunday, 18 May 2008

0800-1030	**IT Service Management Workshop** Workshop Coordinators: Sue Conger, University of Dallas, USA Paul Kontogiorgis, IBM Almaden Research Center	Hennepin North
1030-1100	**COFFEE BREAK**	Hennepin Hallway
1100-1230	IT Service Management Workshop	Hennepin North
1230-1330	**LUNCH (ON OWN)**	
1300-1500	**Advancing Your Research Career Workshop** Workshop Coordinators: Felix Tan, Auckland University of Technology, New Zealand Brent Gallupe, Queens University, Canada Detmar Straub, Georgia State University Gerald Grant, Carleton University, Canada	Hennepin North
1500-1530	**COFFEE BREAK**	Hennepin Hallway
1530-1600	Advancing Your Research Career Workshop	Hennepin North
1830-2100	**OPENING RECEPTION**	Oakes Foyer

Monday, 19 May 2008

0800-0845	**CONTINENTAL BREAKFAST**	Hennepin Hallway
0900-1030	**Opening session - Keynote speaker** *Pursuing New Directions at MIS Quarterly, Detmar Straub, Georgia State University*	Hennepin South
1030-1100	**COFFEE BREAK**	Hennepin Hallway
Session I **1100-1230**	**Data Warehousing and Database Management** ***Session Chair:*** *Alex Ramirez, Carleton University, Canada* **• 5F, A Join Index for XML Data Warehouse** Hadj Mahboubi, University of Lyon, Kamel Aouiche, University of Lyon, Jérôme Darmont, University of Lyon **•16F, Applying Data Mining Techniques to Medical Databases** Fatemeh Hosseinkhah, Howard University Hospital, Hassan Ashktorab, Howard University Hospital, Ranjit Veen, American University, Mohammad Owrang-Ojaboni, American University **• 46F, From tags to topic maps: using marked-up Hebrew text to discover linguistic patterns** Jan Kroeze, University of Pretoria, Theo Bothma, University of Pretoria, Machdel Matthee, University of Pretoria **62F, On the XML Data Stream and XPath Queries** Yangjun Chen, University of Winnipeg	Auditorium

Monday, 19 May 2008

Session 2 **1100-1230**	**E-Business and E-Government Applications** ***Session Chair:*** *Mila Gasco, Open University of Catalonia, Spain* **• 2F, A Case Study on Key Success Factors in Delivering e-CRM-Solutions** Soumaya Ben Letaifa, University of Quebec At Montreal **• 6F, A New Perception Model for Web Competitiveness** Hamidreza Amouzegar, K.N.Toosi University of Technology, Mohammad Tarokh, K.N.Toosi University of Technology, Anahita Naghilouye Hidajy, Infotech Pars Company **• 12F, An Analysis based on the Manufacturing Architecture of the Computerization of Local Governments in Japan** Sadaya Kubo, Setsunan University, Tatsumi Shimada, Setsunan University **• 20F, Categorizing 'intention to use' e-government services through mobile phone: the importance of front loading activities** Ronan de Kervenoael, Sabanci University, D. Selcen O.Aykac, Sabanci University, Enes Eryarsoy, Sabanci University, Nihat Kasap, Sabanci University	Hennepin North
Session 3 **1100-1230**	**Outsourcing and Offshoring** ***Session Chair:*** *Mahesh S. Raisinghani, Texas Woman's University, USA* **• 21F, Challenges, Success and Utilization of Enterprise Systems: A Comparative Study of Canadian and American Large Corporations** Uma Kumar, Carleton University, Bahar Movahedi, Carleton University, Kayvan Lavassani, Carleton University, Vinod Kumar, Carleton University **• 84R, Towards a Framework for Balancing Enterprise Systems Flexibility** John Sullivan, Charleston Southern University, Todd Boyle, St. Francis Xavier University, Maike Scherrer-Rathje, University of St. Gallen **• 3F, A Dynamic Model of Decision-making in the IS/IT Outsourcing Process: A Case Study from a Government-supported Project** Ching-Chia Hsieh, National Taiwan University, Cheng-Chieh Huang, National Taiwan University **• 60F, Managing Icelandic IT Operations Through Outsourcing** William Tastle, University of Iceland, Arsaell Valfells, University of Iceland	Hennepin South

Monday, 19 May 2008

Session 4 **1100-1230**	**4 Human Side of IT** ***Session Chair:*** *Mike Taein Eom, University of Portland, USA* **• 30F, Developing an Instrument to Measure Trust in Organizations** Salvatore Belardo, SUNY at Albany, Jakov Crnkovic, SUNY at Albany, Eithel Lauria, Marist College **• 43F, Extraction of Word Set for Increasing Human-Computer Interaction in Information Retrieval** Eiko Yamamoto, Kobe University, Hitoshi Isahara, National Institute of Information and Communications Technology **• 53F, Infusing Critical and Creative Thinking and Metacognition in ICT Education: A Classroom Study** Anil Sharma, United Arab Emirates University, Khalifa Ali Alsuwaidi, United Arab Emirates University, Divya Na, Rowntree Montessori Academy, Stephen Boylan, United Arab Emirates University **• 67F, Recruitment Methods used by Software Industry in Pakistan: Issues and Concerns** Fawad Rana, International Islamic University Islamabad, Uzma Jaaved, COMSATS Institute of Information Technology Islamabad, Qaisar Abbas, COMSATS Institute of Information Technology, Islamabad	Chippawa Room
1230-1330	**LUNCH**	Cut Above Steak House
Session 5 **1330-1500**	**5 E-Business and E-Government Applications** ***Session Chair:*** *Gerry Gingrich, National Defence University, Washington, DC, USA* **• 33F, Development and Implementation of Interoperability Standards for Electronic Government: a Case Study of the Brazilian e-PING Framework** Ernani Santos, University of São Paulo, Nicolau Reinhard, University of São Paulo **• 35F, E-Commerce Adoption and Acceptance by Firms: Exploratory Study** Hassan Selim, United Arab Emirates University **• 36F, E-commerce Standard User Interface: Design and Implementation** Shin-Ping Tucker, University of Wisconsin-Superior **• 42F, Extending the Architecture for a Next-Generation Holistic E-Recruiting System** Andreas Eckhardt, University of Frankfurt a. Main, Sven Laumer, University of Bamberg, Tim Weitzel, University of Bamberg	Hennepin North

Monday, 19 May 2008

Session 6 **1330-1500**	**IS Research Methods** ***Session Chair:*** *Doncho Petkov, Eastern Connecticut State University* **• 14F, An Integrated Model for Business Process Measurement** Vincent Yen, Wright State University **• 61F, On Broadening Software Development Productivity Research To Serve Better Software Engineering Management** Doncho Petkov, Eastern Connecticut State University, Olga Petkova, Central Connecticut State University **• 65F, Process Orientation in Enterprise System Implementation: An Empirical Study** Vinod Kumar, Carleton University, Bahar Movahedi, Carleton University, Uma Kumar, Carleton University, Kayvan Lavassani, Carleton University **• 75F, Testable theory development for small-N studies: critical realism and middle-range theory** Matthew Smith, London School of Economics and Political Science	Auditorium
Session 7 **1330-1500**	**Human Side of IT** ***Session Chair:*** *Edward Szewczak, Canisius College, NY, USA* **• 41R, Exploring the Effects of Personal Levels of Depression and Anger on Individual Online Social Network Activities** Alan Brandyberry, Kent State University **• 64R, People aspects of Business Process Management: Determinants of Process-oriented Behaviour** Joachim Van den Bergh, Vlerick Leuven Gent Management School, Dirk Deschoolmeester, Vlerick Leuven Gent Management School, Peter Willaert, Vlerick Leuven Gent Management School, Jurgen Willems, University of Gent **• 87F, User Profiling for Search Engines' Help Systems** Yun-Ke Chang, Nanyang Technological University, Miguel A. Morales, Nanyang Technological University Arroyo, Myat Thu Aung, Nanyang Technological University, Kyaw Thu Ya, Nanyang Technological University Lwin Zaw Win, Arius3D **• 74F, Taking IT Artifacts Seriously: Developing a Mixed Determinants Model of Assimilation of Telehealth Systems** Joachim Jean-Jules, Université de Sherbrooke, Alain Villeneuve, Université de Sherbrooke	Chippawa Room

Monday, 19 May 2008

Session 8 **1330-1500**	**Panel Discussion** **• 68P, SMEs, ICT Use and Capabilities** G. Harindranath, University of London, Romano Dyerson, University of London, David Barnes, University of London UK, Andy Igonor, Concordia University	Hennepin South
1500-1530	**COFFEE BREAK**	Hannepin Hallway
Session 9 **1530-1700**	**IS Research Methods** ***Session Chair:*** *Manuel Mora, Universidad Autónoma de Aguascalientes, México* **• 76F, The Case for Conceptual Research in Information Systems** Manuel Mora, Autonomous University of Aguascalientes, Ovsei Gelman, Universidad Nacional Autónoma de México, David Paradice, Florida State University, Francisco Cervantes, Universidad Nacional Autónoma de México **• 77F, The Critical Success Factor Method: A Review and Practical Example** Vanessa Cooper, RMIT University **• 82F, The Socio-technical Balanced Scorecard: A Framework for Assessing a Public University** Ramanjit Singh, University of Manchester, Trevor Wood-Harper, University of Manchester, Bouchaib Bahli, Concordia University **• 51R, Improving Software Quality Through the use of Statistics** Juan Gomez Reynoso, Universidad Autónoma de Aguascalientes, Monica del Refugio Brizuela Sandoval , Universidad Autónoma de Aguascalientes	Auditorium
Session10 **1530-1700**	**Panel Discussion** **54P, Innovation: To Disrupt or Not To Disrupt?** Gerry Gingrich, National Defense University, Robert D. Childs, National Defense University, John T. Christian, National Defense University, Mehdi Ghods, The Boeing Company	Hennepin South

Monday, 19 May 2008

Session 11 **1530-1700**	**Supply Chain Management** ***Session Chair:*** *Dipanjan Chatterjee, Brock University, Canada* **• 79F, The Impact of Strategy and IS Flexibility on Performance in the Supply Chain Context: A Path Analysis Approach** Kamel Fantazy, Carleton University, Vinod Kumar, Carleton University, Uma Kumar, Carleton University **• 85F, Transition to B2B e-Marketplace Enabled Supply Chain: Readiness Assessment and Success Factors** Bahar Movahedi, Carleton University, Kayvan Lavassani, Carleton University, Vinod Kumar, Carleton University **• 93R, Where is New Zealand at With RFID in the Supply Chain? - A Survey Result** Chin Boo Soon, The University of Auckland, Jairo Gutiérrez, The University of Auckland **• 91F, What is Process Standardization?** Bjoern Muenstermann, University of Bamberg, Tim Weitzel, University of Bamberg	Hennepin North
Session12 **1530-1700**	**IT Security and Privacy** ***Session Chair:*** *Shaobo Ji, Carleton University, Canada* **• 18F, Biometrics and the United Kingdom National Identity Register: Exploring the Privacy Dilemmas of Proportionality and Secondary Use of Biometric Information** Aaron Martin, The London School of Economics and Political Science **• 19F, Business Associates of Healthcare Providers and Medical Information Privacy** Edward Szewczak, Canisius College, Coral Snodgrass, Canisius College **• 40F, Exploring Determinants of Biometric Technology Adoption in a Developing Country Context** Faith-Michael Uzoka, University of Botswana, Tshepo Ndzinge, University of Botswana **• 44F, Factors Affecting the Objectives of Information Security Management** Qingxiong Ma, University of Central Missouri, Pauline Ratnasingam, University of Central Missouri	Chippawa Room
1900-2200	**CONFERENCE DINNER**	Oakes North East

Tuesday, 20 May 2008

0800-0845	**CONTINENTAL BREAKFAST**	Hennepin Hallway
Session13 **0900-1030**	**Panel discussion** **• 37P, E-Government Effectiveness: Evaluating Your Organization's Information Technology Investment Portfolio** John T. Christian, National Defense University, Geoffrey Seaver, National Defense University	Auditorium
Session 14 **0900-1030**	**IT Architecture and Standards** ***Session Chair:*** *Manuel Mora, Universidad Autónoma de Aguascalientes, México* **• 1R, "Meta" Matters** Richard Martin, Tinwisle Corporation, Edward Robertson, Indiana University **• 10R, Agile Systems Development Versus Process-Centricity: A Conflict of Priorities?** Delroy Chevers, The University of the West Indies, Evan Duggan, The University of the West Indies **• 25F, Co-ordinating Rule Setters - Co-operation in ICT Standards Setting** Kai Jakobs, RWTH Aachen University, Manuel Mora, Autonomous University of Aguascalientes **• 52F, Information Security Policy Development for Caribbean Financial Institutions** Kevin Duncan, The University of the West Indies, Evan Duggan, The University of the West Indies **• 66F, Public Policy Analysis Re-Imagined with Web 2.0 Applications** James Piecowye, Zayed University	Hennepin North

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Session 15 **0900-1030**	**IT for Development** ***Session Chair:*** *Lech Janczewski, The University of Auckland* **• 48F, ICT Education: Bridging with the Industry** Lech Janczewski, The University of Auckland **• 83F, The Use of ICT for Social Development in Underprivileged Communities** Sherif Kamel, The American University in Cairo **• 17F, Barriers for Implementing ICT on Higher Education in Underdeveloped Countries Sudan: Case Study** Ayman Suliman, Multimedia University, David Yong, Multimedia University, Murali Raman, Monash University, Nafis Alam, Monash University **• 50F, ICT Service Agreements: Definitions, Purpose and Development Principles** Robert Benyon, Rhodes University, David Sewry, Rhodes University, Rob Johnston, Rhodes University	Chippawa Room
1030-1100	**COFFEE BREAK**	Hennepin Hallway
Session16 **1100-1230**	**IT Security and Privacy** ***Session Chair:*** *Mark Rounds, University of Idaho, USA* **• 56F, Knowledge for Managing Information System Security: Review and Future Research Directions** Huijin Guo, McMaster University **• 70F, Some Implementation Issues for Security Services based on IBE** Göran Pulkkis, Arcada University of Applied Sciences, Jonny Karlsson, Arcada University of Applied Sciences, Kaj Grahn, Arcada University of Applied Sciences **• 71F, Student Survey on Computer Security Awareness and Responsiveness** Mark Rounds, University of Idaho, Richard Pendegraft, University of Idaho, Norman Pendegraft, University of Idaho, Robert Stone, University of Idaho	Chippawa Room

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Session 17 **1100-1230**	**Panel discussion** **• 92P, What It Takes for a CIO to Be a CEO: Future Leadership Strategy** Mahesh Raisinghani, TWU School of Management, Ana Del Aguila-Obra, University of Malaga, Pedro Antunes, University of Lisboa, Theo Addo, San Diego State University, Rebecca Angeles, University of New Brunswick, Phillip Dobson, Edith Cowan University, Murray Jennex, San Diego State University.	Hennepin North
Session 18 **1100-1230**	**• IT Service Management** ***Session Chair:*** *Robert Benyon, Rhodes University, South Africa* **• 11F, Aligning Six Sigma and ITIL: Implications for IT Service Management** Peter Chan, Texas Woman's University, Shauntell Durant, Texas Woman's University, Verna Gall, Texas Woman's University, Mahesh Raisinghani, Texas Woman's University **• 15F, An Investigation of a Framework for the Implementation of Service Management in the Information and Communication Technology Sector** Robert Benyon, Rhodes University, David Sewry, Rhodes University **• 23R, Conflicting Views on ITIL Implementation: Managed as a Project - or Business as Usual?** Aileen Cater-Steel, University of Southern Queensland, Carol Pollard, Appelachian State University **• 26R, Defining an Organizational Performance Construct for Validating Business Process Orientation** Jurgen Willems, Vlerick Leuven Gent Management School, Peter Willaert, Vlerick Leuven Gent Management School, Joachim Van den Bergh, Vlerick Leuven Gent Management School **• 29R, Developing a Network Architecture to Support Service Level Agreements** Brett Landry, University of Dallas	Auditorium
1230-1330	**LUNCH**	Hennepin South

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Session 19 **1330-1500**	**Knowledge Management** ***Session Chair:*** *Theo Addo, San Diego State University, USA* **• 88R, Utility Computing Framework And Its Impact On The Medical Industry** Sri Madhisetty, University of Technology Sydney, Peter Busch, Macquire University, George Feuerlicht, University of Technology Sydney **• 7R, A Unified Resource for Post-Secondary Program Information** Wendy Osborn, University of Lethbridge, Steve Fox, University of Lethbridge, Seamus O'Shea, University of Lethbridge **• 27F, Developing a Knowledge Management Model for Self-reliant Communities** Chalard Chantarasombat, Mahasarakham University, Boonchom Srisa-ard, Mahasarakham University **• 32F, Developing the ERP Pre-Mortem Framework: Addressing the Debate Over Organizational Learning** John Sullivan, Charleston Southern University, Mela Wyeth, Charleston Southern University, Wade Chumney, Belmont University **• 38F, Enabling Knowledge Management of Organizational Memory for Groups through Shared Topic Maps** Sree Nilakanta, Iowa State University, Les Miller, Iowa State University, Meghana Rao, Iowa State University	Hennepin North
Session 20 **1330-1500**	**IT in SMEs** *Session Chair: Bharat Maheshwari, University of Windsor* **• 86F, Usages and Effects of Information and Communication Technologies on Small and Medium Sized Enterprises in Oman** Rafi Ashrafi, Sultan Qaboos University, Muhammad Murtaza, Sultan Qaboos University **• 49F, ICT Industry Challenges in Adopting ICT: A Case Study From the West Midlands, UK.** Caroline Chibelushi, University of Wolverhampton **• 4F, A Global Analysis of the Effect of IT Capacity on Development - Understanding Sourcing of Skills** Mehruz Kamal, The University of Nebraska at Omaha, Sajda Qureshi, The University of Nebraska at Omaha, Lotfollah Najjar, The University of Nebraska at Omaha	Chippawa Room

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Session 21 **1330-1500**	**Mobile Business** ***Session Chair:*** *Dennis Viehland, Massey University (Auckland), New Zealand* **• 81F, The Role of E-collaboration Technologies in the Design of Virtual Organizations: Brazilian Cases** Claudia Mattos, University of São Paulo, Fernando Jose Laurindo, University of São Paulo **• 24R, Consumer Propensity to Pay Mobile Service Fees** Dennis Viehland, Massey University, Roslyn Leong, Massey University **• 72F, Study of Mobile Commerce Adoption: A Conceptual Model** Zhenhua Liu, Dalian University of Technology, Shaobo Ji, Dalian University of Technology, Qingfei Min, Dalian University of Technology	Auditorium
1500-1530	**COFFEE BREAK**	Hannepin Hallway
Session 22 **1530-1700**	**Knowledge Management** ***Session Chair:*** *Shaheen Majid, Nanyang Technological University, Singapore* **• 57F, Knowledge Management Systems from Description to Prescription: An Actor Network Approach** El-Sayed Abou-Zeid, Concordia University **• 58R, Knowledge Sharing from Domain-specific Documents** Eiko Yamamoto, Kobe University, Hitoshi Isahara, National Institute of Information and Communications Technology, Akira Terada, Japan Airlines Co., Yasunori Abe, Japan Airlines Co. **• 89F, Utilizing Environment Knowledge for Competitive Advantage** Shaheen Majid, Nanyang Technological University, Rajani Kowtha, Nanyang Technological University	Hennepin North

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Session 23 **1530-1700**	**E-Collaboration** ***Session Chair:*** *Felix Tan, AUT University, New Zealand* **• 31F, Developing Interoperable Collaboration Services to Sustain Activities of Communities of Practice** Liliane Esnault, EM-LYON, Nikos Karacapilidis , EPFL Lausanne, Denis Gillet, Research Academic Computer Technology Institute & University of Patras, Christine Vanoirbeek, EPFL Lausanne **• 63F, Operations and Tool Support for Public View Transformations of Business Processes** Dirk Werth, German Research Centre for Artificial Intelligence, Jörg Ziemann, German Research Centre for Artificial Intelligence, Timo Kahl, German Research Centre for Artificial Intelligence, Peter Loos, German Research Centre for Artificial Intelligence **• 73F, Supporting Electronic Collaboration in Conceptual Modelling** Peter Rittgen, University College of Borås **• 80F, The Importance of Normative Social Influence and Similarity of Group Media Preferences to Group Meeting Outcomes: A Preliminary Result** Zixiu Guo, The University of New South Wales, Felix Tan, AUT University, Tim Turner, The University of New South Wales, Huizhong Xu, Fudan University	Auditorium
Session 24 **1530-1700**	**E-Business and E-Government Applications** ***Session Chair:*** *Jairo Gutiérrez, The University of Auckland, New Zealand* **• 69F, Solving the Traffic Problem by Using a Simulation Model** Cheng-Liang Yang, The University of Tatung, Wu Wen, LungHwa University of Science and Technology **• 90F, Web Homepage Design: An Analysis of New Zealanda's Top 50 Web Sites** Dennis Viehland, Massey University, Fei Zhao, Massey University **• 34R, E-business obstacles in Iran's Free Trade Zones** Mohammad Ali Sarlak, The University of Payame Noo, Asghar Abolhassani Hastiani, The University of Payame Noor **• 78R, The Determinants of Quality in Public (e)-procurement: an Analysis of the 13 National Procurement Hubs in the European Union** Francesco Bof, SDA Bocconi School of Management, Pietro Previtali, University of Pavia	Chippawa Room

[End of the Conference]

Abstracts

1R. "Meta" Matters

Richard Martin, Tinwisle Corporation, tinwisle@bloomington.in.us
Edward Robertson, Indiana University, edrbtsn@indiana.edu

Misunderstandings related to "meta" often cause serious problems in systems engineering. This paper attempts to elucidate some of those misunderstandings, particularly as they apply to systems architectures. It examines how standards can provide discipline and clarity, suggesting how standards themselves must be done without falling into similar "meta" traps.

2F. A Case Study on Key Success Factors in Delivering e-CRM Solutions

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Over the past 10 years, a number of studies have pointed out that many e-CRM projects fail to deliver the expected benefits. In the business-to-business e-CRM market, many customers have faced issues with technology implementation, management of organizational change, and/or e-CRM effectiveness. However, none of these studies mentioned PeopleSoft. In fact, PeopleSoft's e-CRM has been a best-of-breed solution. The purpose of this case study is to explain the determinants of the success of PeopleSoft's e-CRM. This study was carried out in PeopleSoft's Canadian subsidiary in 2004 (before the acquisition by Oracle). The findings reveal the superiority of PeopleSoft on the financial, marketing, and technological dimensions. In fact, the sustainable competitive advantage of PeopleSoft's e-CRM lies in what is called a value-based business model. This unique business model is based on a 100% Internet architecture, a pricing model customized according to the value delivered to the customer (not the number of users), and the sharing of e-CRM risk with customers. This case study describes a striking reality: PeopleSoft's CRM vision is the key success factor. Other e-CRM vendors, including Siebel, lack a vision for selling their e-CRM technology.

3F. A Dynamic Model of Decision-making in the IS/IT Outsourcing Process: A Case Study From a Government-supported Project

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The IS/IT outsourcing process is complex and the outcome is unpredictable, especially in the varied participants, complicated social and political environments. Prior research on IS/IT outsourcing decisions simply assumed the rational, comprehensive, independent decision-making activity is not descriptively accurate and perhaps thus cannot be prescriptively useful in this complex environment. To get deeper understandings of the decision-making in the IS/IT outsourcing process, this research creates a dynamic model to illustrate the complex phenomenon. In-depth case study methodology and process-oriented analysis strategy were used to interpret a government-supported, outsourced IS project. This study indicates that decision makers should regard the IS/IT outsourcing process as a continuous, integral process in context and consider the structural

influence, antecedent conditions, and future impact in every decision episode. This paper provides an initial insight by studying IS/IT outsourcing decision-making through dynamic and process perspective.

4F. A Global Analysis of the Effect of IT Capacity on Development – Understanding Sourcing of Skills

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The use of IT to support global processes has opened up opportunities for some countries to source skills from other countries often located in very different parts of the world. This study investigates the relationship between ICT Capacity and Skills and their effects on Economic Development from 2001 to 2005 for each of the 183 countries that are members of the United Nations. Following an analysis of ICT Capacity and its relationship to Skills and Economic Development, this paper reports positive correlations. The contribution of this paper is in the development and testing of a conceptual model that illustrates these correlations and explains why digital divides are narrowing in some countries but widening in others. This relationship between ICT capacity and skills has implications for the global sourcing of skills between countries and regions.

5F. A Join Index for XML Data Warehouses

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XML data warehouses form an interesting basis for decision-support applications that exploit complex data. However, native-XML database management systems (DBMSs) currently bear limited performances and it is necessary to research for ways to optimize them. In this paper, we propose a new join index that is specifically adapted to the multidimensional architecture of XML warehouses. It eliminates join operations while preserving the information contained in the original warehouse. A theoretical study and experimental results demonstrate the efficiency of our join index. They also show that native XML DBMSs can compete with XML-compatible, relational DBMSs when warehousing and analyzing XML data.

6F. A New Perception Model for Web Competitiveness

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Competitive intelligence is an effective tool for outmaneuvering, out-pricing and outsmarting the competition. It is important that you know what your competitors will do next in order to make smarter decisions. Many solutions are presesented for competitor analyzing in old market point of view which come from strategic based till media scanning methods. This paper presents a new perception model for competitiveness in web environment and focuses on modeling and measuring the manner of competitors with software agent facilities. The purpose of this paper is to propose a new solution for e-firms to find their appropriate marketplace based on a formal methodology.

7R. A Unified Resource for Post-secondary Program Information

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We present a prototype for a post-secondary information resource that is maintained as a digital library. This information resource provides students with a one-stop-shop for all programs from participating institutions. The content is obtained from the World Wide Web, is style-unified, is organized for searching and browsing from different angles, and is updated nightly to keep information current. We present the architecture and functionality of the collection building process. We also present some current issues we are working on.

10R. Agile Systems Development Versus Process-centricity: a Conflict of Priorities?

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Delroy A. Chevers, The University of the West Indies, delroy.chevers@uwimona.edu.jm

Information systems (IS) developers and stakeholders continue to be challenged in managing and delivering successful software projects. Several remedies have been prescribed for producing higher quality business applications and to this end, IS developers have turned to both structured and agile methods. The former emphasizes the optimization of process discipline and capability through software process improvement (SPI) approaches and formal systems development methodologies, while the latter, which is grounded in the belief that people are the most important IS success factor, focuses on the early delivery of increments of software functionality with high business value. While proponents of these approaches continue to laud their benefits, the literature is yet inconclusive regarding their relative merits. This paper explores these seemingly, markedly different philosophical approaches to assuring software product quality by examining whether (1) there is a clash of priorities between these approaches (2) there are clear boundary conditions that may suggest the use of one versus the other, and (3) there are development contexts for which the integration of these techniques may be more beneficial than using either alone.

11F. Aligning Six Sigma and ITIL: Implications For IT Service Management

Peter Chan, Shauntell Durant, Verna Gall, Mahesh Raisinghani, Texas Woman's University, mraisinghani@twu.edu

Today's executives are challenged to deliver value to their shareholders in a global market place. Technology organizations must deliver interoperation of processes, people and technology to the entire enterprise. To design, deliver, and manage IT services to meet an agreed level of quality, Organizations are implementing IT Service Management (ITSM) and creating quality standards, which uses the best practices of IT Infrastructure Library (ITIL). ITIL tells IT management what needs to be done and how it will get done from the process perspective. When under- taking an ITSM a project to implement ITIL, ITIL does not provide a method for measuring quality or identifying and completing process improvement projects. By integrating Six Sigma, which is a quality methodology, IT management will have the methodology and tools for measuring quality and improving processes. Adopting Six Sigma principles also will help IT focus on their customers and the business strategy, manage proactively based on facts, and reinforce collaboration across the enterprise. The purpose of this paper is to introduce the reader to the concepts of ITSM, ITIL and Six Sigma individually. Additionally we will

make the case for leveraging ITIL and Six Sigma with ITSM in practice and opportunities for future research.

12F. An Analysis Based on the Manufacturing Architecture of the Computerization of Local Governments in Japan

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In this study, we examine the computerization activities of local governments to determine the relationships of architecture. Focusing on the characteristics of the design, development, and operation of computerization, we propose the architecture of computerization based on the manufacturing architecture. Furthermore, we analyze several cases and try to classify the information activities of organizations. We also refer our empirical survey to clarify the actual situation of e-government digitization in Japan. We show the classification of computerized activities in a local government and the future use of computerization based on the above considerations.

14F. An Integrated Model for Business Process Measurement

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Business process management has been a very active subject in practice, software industry and research for the last ten years. Many important contributions are in the business process modeling and its software implementation. Development of Business process modeling software and its ability of using Web Services are key factors for the popularity of the subject. Now businesses are increasingly capable of designing and redesigning business processes to improving business operations and reap benefits, even gaining a competitive advantage. However, research in the evaluation of business processes is lacking behind those of modeling techniques. Past studies have been either on the internal quantitative performance measures or on the satisfaction of customers using qualitative measures. In this paper an attempt is made to combine all relevant measures (with respect to the goals of the business process) into one overall measure. The overall measure is to reflect all stakeholders' perspective and importance on the goals of business process in question. The conceptual model is believed to be a promising tool. Some issues of the model are highlighted and briefly discussed for future research.

15F. An Investigation of a Framework for the Implementation of Service Management in the Information and Communication Technology Sector

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David Sewry, Rhodes University, d.sewry@ru.ac.za

The true value of Information and Communication Technology (ICT) can only be realised when it provides solutions that meet or exceed the client's expectations. The successful management of services includes maintaining service levels, which involves defining and satisfying customer requirements. Service Management is a misunderstood dynamic process with key elements and associated problems. This paper identifies the requirements for a Service Management framework and proposes a two phase framework for its implementation. These two phases are the preparatory phase and the managed services phase. The preparatory phase is characterised by the absence

of a client and the development of a Service Catalogue. The managed services phase pivots around the client and the Service Agreement.

16F. Applying Data Mining Techniques to Medical Databases

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The data mining techniques such as Neural Network, Naïve Bayes, and Association rules are at present not well explored on medical databases. In this paper, we present and analyze our experimental results on thrombosis medical database by employing data mining tool of XLMiner and using different data mining techniques such as Naive Bayes and Neural Network for classification, Association rules, and Neural Network and K-Nearest Neighbors for prediction. As seen from experiments, some results are common across various mining techniques while others are unique.

17F. Barriers for Implementing ICT on Higher Education in Underdeveloped Countries "Sudan: Case Study"

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Information and communication technology (ICT) has become, within a very short time, one of the basic building blocks of modern society. Many countries consider understanding skills and concepts of ICT and mastering it as essential element of education process, alongside reading and writing. Within the past decade, the new ICT tools have fundamentally produced significant transformations in industry, agriculture, medicine, business, engineering and other fields. They also have the potential to transform the nature of education-where and how learning takes place and the roles of students and teachers in the learning process. This conceptual paper will highlight the importance and the role of ICT in Higher education in context of underdeveloped countries taking example of Sudan. The paper will further investigate the barriers to the growth of ICT in underdeveloped countries in general and Sudan in particular.

18F. Biometrics and the United Kingdom National Identity Register: Exploring the Privacy Dilemmas of Proportionality and Secondary Use of Biometric Information

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Despite the obvious importance of privacy concerns in the information age, "privacy" remains a messy concept in the academic literature. Scholars are thus attempting to clarify and systematize the privacy concept. They have proposed two important dimensions of privacy concerns: 1) proportionality, or the adequate, relevant and non-excessive collection of personal data, and 2) secondary usage, or the prohibition of subsequent, unspecified uses of personal information. This paper takes measure of the proportionality and potential secondary uses of biometric data in the proposed United Kingdom (UK) National Identity Register (NIR). It argues that the UK Identity Cards Act 2006 fails to guard against violations of the principles of proportionality and secondary usage of biometric data. After reviewing the modern literature on informa-

tional privacy protection, I analyze biometrics and their privacy implications. I then discuss these implications in the context of the UK government's NIR plans. The analysis yields insights into how biometrics on the proposed NIR interplay with purpose specifications, architectural concerns, knowledge asymmetries and public anxieties. I also explore potential secondary uses of the types of biometric data that could be stored in the NIR. Last, a brief note is offered about the possible means of regulating against privacy infringements.

19F. Business Associates of Healthcare Providers And Medical Information Privacy

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The introduction of information technology (IT) has changed the handling of medical information in ways that are both promising for improving health care as well as threatening to the individual patient's medical information privacy (MIP). In this context, the role of the business associate of healthcare providers (BAHP) is particularly worrisome in light of the fact that current HIPAA legislation has little to say about BAHPs and their potential impact on MIP. For the good of the business enterprise, managers who are BAHPs or who supervise BAHPs need to be aware of the potential pitfalls of ignoring MIP and take a proactive stance in protecting MIP.

20F. Categorizing 'intention to use' e-government services through mobile phone: the importance of front loading activities

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E-government has often been heralded as the new way forwards for emerging countries. While many such countries are already offering e-government services and are gearing up for further growth, little is actually known of the forming stages that are necessary to ensure a greater rate of success and avoid the traditional failure traps linked to new technology and information system adoption and diffusion. We situate our research in the case of mobile phone as a reflection of the current market situation in emerging countries. We contend, in this paper, that more research is needed to understand future intention to use e-government services through mobile phone technology. Front loading activities both from a government and technology perspectives are required to facilitate the decision making process by users.

21F. Challenges, Success and Utilization of Enterprise Systems: A Comparative Study of Canadian and American Large Corporations

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This study proposes measurement systems for assessing the success of implementation, challenges of implementation and success of utilization of enterprise systems. The proposed measurement systems are used empirically to assess the level of success and challenges of a sample of 2500 Canadian and American large corporations in the implementation of enterprise systems. Based on the findings of the

study, a comparative analysis of the Canadian and American corporation is presented. The findings show that US firms are more successful in following their ES implementation master plan, in implementation of ES, and face fewer challenges. However, we did not find a significant difference between Canadian and US firms in success of utilization of ES.

23R. Conflicting Views on ITIL Implementation:Managed as a Project – or Business as Usual?

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Many organizations are implementing ITIL to improve their IT service management. Although the ITIL guidelines are considered crucial to the implementation process, it appears there is no standard implementation approach taken by organizations. This research reports on two case studies of successful ITIL implementations to derive a roadmap for implementation and a set of critical success factors.

24R. Consumer Propensity to Pay Mobile Service Fees

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Roslyn Siu Yoong Leong, Massey University, blue_seclusion@yahoo.co.nz

Numerous studies have explored consumer adoption of mobile payments from a variety of perspectives – security, convenience, and perceived ease of use and usefulness. A few studies have concluded that cost contributes to consumer adoption of m-payments, but not explored this factor in any detail. This study (a) offers exploratory research on specific reasons why consumers do or don't use mobile payments and (b) examines the propensity of consumers to pay mobile service fees under a variety of realistic scenarios. The study finds that the top reason why consumers don't use mobile payments is dislike for paying service fees. Research results also show that consumers are quite price sensitive to making mobile payments when a service fee is charged, except when urgent or when no alternative payment method exists.

25F. Co-ordinating Rule Setters – Co-operation in ICT Standards Setting

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Manuel Mora, Autonomous University of Aguascalientes, México, mmora@correo.uaa.mx

This paper highlights the need and relevance of standards in the modern complex business world, and identifies the critical problem on the interaction and collaboration of formal bodies and industry consortia that are co-responsible for standards development. Then, the discusses specific aspects relating to competition and co-operation in ICT standards setting, including a discussion about the arguably counter-productive distinction between both groups.. Looking at both theoretical and practical aspects it concludes that co-ordination co-operation of standards setting bodies is urgently called for, and that standards policy in Europe is in need of an overhaul.

26R. Defining an Organizational Performance Construct for Validating Business Process Orientation

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Peter Willaert, Vlerick Leuven Gent Management School, peter.willaert@vlerick.be
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This research in progress argues for the development of an enhanced construct for Or-

ganizational Performance measurement in the context of validating Business Process Orientation. Based on a preliminary dataset, first reliability testing and structure detection is performed. These analyses show a high usability for further research in the domain of Business Process Management.

27F. Developing a Knowledge Management Model for Self-reliant Communities

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Boonchom Srisa-ard, Mahasarakham University, boonchom2004@yahoo.com

This study aimed to develop a knowledge management (KM) model for self-reliant communities. The areas and focus groups were Ban Nam Kliang and Ban Lao Rat Phatthana, Amphoe Wapi Pathum, Changwat Maha Sarakham with 8 groups and 40 persons. Mixed research methodologies were used. Results: 1) the developed community organization KM model consisted of these stages: community preparation; building motivations, awareness, participation promotion, and building visions; making plans/developing team potentials; implementing/plans in practice and work development; and summary evaluation. 2) Every organization group generated community knowledge managers. There were KM operations comprising: building, classifying, storing, implementing, sharing, and evaluating knowledge. 3) The focus groups showed their satisfaction with work operation as a whole at a high level. And 4) The factors of KM success of the community organizations included: enthusiasm about learning, leadership of the researcher and participants, participatory work climate, action learning, and work mechanisms (community organization KM centers).

29R. Developing a Network Architecture to Support Service Level Agreements

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There is often a rush into Service Level Agreements (SLA) as part of implementing service management. However without a mature and stable network infrastructure, SLAs will be unreachable. The network needs to have a stability that allows predictability and manageability. This paper outlines some of the issues, both logical and physical as they affect an organizations ability to employ SLAs.

30F. Developing an Instrument to Measure Trust in Organizations

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This research is an attempt to develop a survey instrument to assess the level of trust in an organization and its role in fostering learning and collaboration as a way of enhancing organizational performance. We discuss the development of the survey instrument and present preliminary results from two pilot studies.

31F. Developing Interoperable Collaboration Services to Sustain Activities of Communities of Practice

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Communities of Practice (CoPs) have attracted the interest of professionals and researchers as successful environments for enhancing,

developing and improving practices through collaboration between their members. More and more, CoPs are choosing virtual environments and services to support their activities. However, recent research has underlined the lack of adequate scaffolding in terms of technical support and appropriate use of technology for communication and collaboration. The paper argues in favour of a collaborative design methodology for the development of services based on new technologies, open-source or "open-source minded". Producing interoperable, evolutionary, flexible and truly collaborative services appears of major interest to sustain activities of distributed CoPs. The paper uses as a case study the description of collaboratively designed services addressing the needs of distributed CoPs within the European Project PALETTE. The example of PALETTE shows that in complex project situations, collaborative design sustained by Actor-Network Theory is a helpful framework to reach the goals of the project.

32F. Developing the ERP Pre-Mortem Framework: Addressing the Debate Over Organizational Learning

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Organizational learning (OL) is a major weakness for ERP project implementation. Exploratory research interviews of ERP managers/consultants support this finding. Many organizations do not implement proper procedures that effectuate valid learning experiences from failures endured. The literature suggests that effective OL involves complex ongoing processes requiring pervasive knowledge management and organizational memory systems (Jennex and Olfman, 2002). One example of an OL failure is FEMA's experience with the pre-Katrina "Hurricane Pam" exercise. Alternatively, an example of OL success is found in the U.S. Navy's methods and procedures. There is considerable similarity between managing ERP systems and managing high reliability system environments like those of FEMA and the US Navy. Given both the failures and successes in the area of OL, it is evident that further research is required if the phenomena is to be more fully understood.

33F. Development and Implementation of Interoperability Standards for Electronic Government: a Case Study of the Brazilian e-PING Framework

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Though it may seem commonsensical that interoperability standards play an important role in systems integration and information sharing within the environment of electronic government, establishing these standards is no easy task. This process is highly complex due to the number of participating agents, the environment in which it takes place and the interrelation between the agents and the environment, not to mention the likely conflicts of interests connected with this interrelation. It is also believed that the affected agents' perception of the relevance and the legitimacy of the defined specifications may influence the latter's adoption. Based on these assumptions, this paper analyses the development and implementation processes of standards for electronic government from the standpoint of Institutional Theory. It presents the preliminary findings of an exploratory qualitative case study, based on document analysis and semi-structured interviews, of the framework

interoperability specified by the Brazilian Federal Government (e-PING). The results point out some of the institutionalization processes and legitimacy mechanisms that are being used by the government in the establishment of those standards and the likely implications of those actions for full compliance with the said standards.

34R. E-business Obstacles in Iran's Free Trade Zones

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The current research tries to identify the key barriers to adoption e-business among Iran's free trade and special economic zones using Delphi Method. This qualitative study examined the opinions of a diverse group of participating experts in the area of free trade zones and e-business. Data were collected through a Delphi methodology during which four rounds of Delphi were administered to determine the key barriers to adoption e-business among Iran's free trade zones.

35F. E-Commerce Adoption and Acceptance by Firms: Exploratory Study

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This study attempts to explore the internal and external factors affecting the adoption and acceptance of e-commerce by businesses in developing countries. It provides an exploratory analysis of surveying 524 firms in Abu Dhabi. In an attempt to specify the factors that encourage/deter e-commerce adoption by businesses, 14 factors (8 internal and 6 external) were surveyed. The results indicated that most of the firms were either at the first or second stage on the e-commerce 5-stage adoption ladder. This indicated that the e-commerce adoption is not matching and far less than the IT readiness of both the firms and the country.

36F. E-Commerce Standard Users Interface: Design and Implementation

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A rapidly growing segment of the Internet is e-commerce. The future of economic competitiveness for most enterprises relies on entrance and active participation in the e-commerce market. About a third of the time users fail when they try to purchase products on an e-commerce site. An essential problem with e-commerce is that the controls and organization are different for each site. There is no standard way of building the navigation of the e-commerce site. Most sites do not have a global navigation system and the local one may be confusing, like solving a maze. The objective of this study is to provide an implementation method by which an agent of the artificial intelligence (AI) user interface creates a standard navigation menu to increase the usability of e-commerce. The selected menu items of the e-commerce standard user interface are based on a study of the graphical user interface (GUI) used in Windows environment and an evaluation of one hundred and two (102) e-commerce sites. The ideal standard navigation menu, E-menu, could cross over entire e-commerce sites in the World Wide Web (WWW) environment. The E-menu system considers the global level, which is simply to say "buy-your-stuff-and-leave" by clicking on a very straightforward navigation standard menu.

37P. E-Government Effectiveness: Evaluating Your Organization's Information Technology Investment Portfolio

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In any governmental organization, the funds expended on information technology (IT) are second only to those expended on personnel costs. However, the value and the risk of IT are diverse and variable. With the growth and expansion of e-government applications, a concurrent increase in IT investments results. As IT investments increase in number, the question is raised of how cost-effective these investments are. Given any current IT investment, the business value provided for the funds expended appears acceptable and the associated risks appear reasonable. However, each governmental component wants its own IT so it can provide the e-government solutions it deems necessary. The result is a spaghetti bowl of IT applications and infrastructure. As budgets decrease and IT departments downsize, the effectiveness of e-government programs is in peril unless a better approach to governing IT is realized.

Public sector CIOs constantly evaluate the competing needs of providing new superior IT support while operating and maintaining ever-aging IT services and infrastructure for the business units. With IT's expansion from being a key component of back office support systems to being the customer-facing mission critical component of the e-government front office, CIOs faced larger spaghetti bowls of IT and their governmental colleagues increasing IT expectations. For a CIO to develop and maintain integrated e-government solutions that are delivered on-time and within-budget and which perform as advertised, additional business guidance is imperative in the form of a structured and disciplined approach to governing IT investments.

To better manage business and stakeholder expectations, proactive governmental CIOs have begun implementing a transparent and inclusive IT capital planning and investment control process and borrowing based on financial investment portfolio concepts and techniques. In particular, such a process invites governmental leaders to participate in evaluating the current portfolio of IT investments. This collaborative approach identifies the business value delivered by the IT portfolio, promotes IT investment alignment with business goals, and increases business knowledge about the resource allocation required to achieve business objectives. The process also lets the governmental leaders share in the difficulty of deciding which IT investments, tied inextricably to various e-government application and programs, need to be terminated or go unfunded until a later date.

The IT investment portfolio approach provides a governance framework that ensures that all IT investment cases are assessed rigorously by an appropriate set of governmental business leaders for business value and business risk. A portfolio approach allows governmental leaders to examine and evaluate an IT investment portfolio so as to balance governmental business value and business risk. In addition, each IT investment case may be rigorously assessed by independent analysts to validate the expected monetary and non-monetary value and expected costs associated with the investment. IT technical experts may validate the technical solution proposed by the investment case to ensure that it is aligned with the agency's enterprise architecture. This governance framework can provide significant oversight of each IT investment throughout its acquisition lifecycle. The IT investment portfolio approach provides sufficient visibility into all of an agency's IT investments so that governmental busi-

ness leaders can continuously evaluate the relationship between each IT investment and its contribution to the e-government objective.

The first twenty minutes of this panel will be devoted to a very brief overview of a portfolio-based approach to IT capital planning and investment control and the concepts that underpin a financial investment portfolio approach. The balance of the time allotted will be used by the panel members and those attending the panel to consider how e-government program expectations can be used to evaluate and align the IT portfolio. The panel will be conducted as a conversation between the panel members and the audience.

38F. Enabling Knowledge Management of Organizational Memory for Groups Through Shared Topic Maps

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Managers are challenged to deal with ever increasing and interconnected web of knowledge and information. Competing for attention in an information rich environment requires the use of efficient mechanisms to abstract the underlying knowledge extracted from collaborative tasks and myriad sources. Moreover, building capabilities to access and reuse the knowledge is also important. The recent push toward service oriented architectures and enabling technologies have refocused attention on knowledge management and organizational memory. Managers and users rely on a variety of information and knowledge from many sources. Their ability to access, use, and repurpose the knowledge is critical, especially when decisions are made at the group and organizational level. Topic maps based systems provide a vehicle to carry out a solution. At group levels, the topic map supports dynamic changes to the structure through collaborative search and modification capabilities. We present a model of a topic map based system that uses these theories and illustrate its use by way of supporting a group search implementation. A prototype of the model is briefly discussed.

40F. Exploring Determinants of Biometric Technology in a Developing Country Context

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This paper examines the prospects of biometrics usage in a developing country. It aims to identify and understand the factors that are significant in explaining the intention to adopt a biometric technology and to explore the potential role of biometric technologies in driving service excellence, productivity and security. The results of the study indicate that although industries may be aware of the benefits and advantages of using a biometric technology for improving security and productivity of an organization, this has proven to have no significant effect on deciding to adopt a biometric technology. The factors that significantly affect the intention to adopt a biometric technology are ease of use, communication, size of organization and type of organization.

41R. Exploring the Effects of Personal Levels of Depression and Anger on Individual Online Social Network Activities

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Online Social Networks (OSNs) are becoming deeply embedded into our society. Due to this widespread interaction it is not surprising that OSNs have been commonly linked to some of the most positive and most nega-

tive events in recent years. This study investigates the effects of self-reported relative levels of depression and anger on the intent to participate in four specific OSN activities: 1) posting personal content, 2) posting responses to others' content, 3) viewing others' content, and 4) communicating directly with others. A large sample (n=1466) survey utilizing monetary incentives was conducted at a single large (> 50000 potential respondents) US university. Although future research is needed to fully characterize these relationships, the study yielded intriguing results. Depression was found to be positively associated with participation in all activities except communicating directly with others while anger was positively associated with participation in all four OSN activities studied.

42F. Extending the Architecture for a Next-Generation Holistic E-Recruiting System

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In July 2007, In Lee proposed an architecture for a next-generation holistic e-recruiting system. Based on an extensive review of marketing, recruiting and IS literature we propose to extend the framework by adding employer branding as a new important construct and sub process. It is shown how employer branding has to be integrated into the existing architecture to develop and implement an effective employer branding strategy. The results are a first step towards an architecture for a holistic e-HR management system.

43F. Extraction of Word Set for Increasing Human-Computer Interaction in Information Retrieval

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We present a mechanism that provides word sets which can make human-computer interaction more active in the course of information retrieval, with natural language processing technology and a mathematic measure for calculating degree of inclusion. We show what type of words should be added to the current query, i.e. keywords which previously had been input, in order to make human-computer interaction more creative. We try to extract related word sets with taxonomical and non-taxonomical relations from documents by employing case-marking particles derived from syntactic analysis. Then, we verify which kind of related words is more useful as an additional word for retrieval support and makes human-computer interaction more fruitful.

44F. Factors Affecting the Objectives of Information Security Management

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The issue of information security management (ISM) had been widely studied with different approaches and from different perspectives. To have the right security objectives is the primary step to achieving an effective security program. Based on the contingency theory, a conceptual model of factors that determine ISM objectives was proposed. To validate this model, a web-based survey with open-ended question was conducted. The responses from 120 certified information security practitioners were categorized and analyzed. The paper contributes to theory as it extends previous studies applying the technological, organizational and environmental framework

to include factors that impact ISM. Further, it contributes to practice as it increases the awareness and importance of ISM.

45R. Paper not presented

46F. From Tags to Topic Maps: Using Marked-up Hebrew Text to Discover Linguistic Patterns

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The paper discusses a series of related techniques that prepare and transform raw linguistic data for advanced processing in order to unveil hidden grammatical patterns. It identifies XML as a suitable mark-up language to build an exploitable data bank of multi-dimensional data in the Hebrew text of the Old Testament. This concept is illustrated by tagging a transcription of Gen. 1:1-2:3 and manipulating this data bank. Transferring the data into a three-dimensional array allows advanced processing of the data in order to either confirm existing knowledge or to mine for new, yet undiscovered, linguistic features. Visualisation is discussed as a technique that enhances interaction between the human researcher and the computerised technologies supporting this process of knowledge creation. The empirical study is a small experiment that illustrates the viability and usefulness of the proposed expert devices as well as the benefits of applying information system techniques to linguistic databases.

47R. Paper not presented

48F. ICT Education: Bridging With the Industry

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This paper presents the practical forms of university/industry co-operation that we have developed over the years at the Department of Information Systems and Operations Management (ISOM) at the University of Auckland, New Zealand. Most of these practices are well known but we think that the ISOM Department set up a comprehensive policy in this area.

49F. ICT Industry Challenges in Adopting ICT: a Case Study From the West Midlands, UK

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The successful operation of companies in most industries is becoming increasingly dependent on their ability to adopt and utilise ICT systems. However, ICT adoption often requires: knowledge of business and IT, investment in IT infrastructure, plans to invest and training in new technologies and other aspects. Many companies lack these factors, resulting in a steady increase in the demand for ICT services and products. Often, ICT adoption has been considered to be a complex problem by SMEs, however the problems are mainly due to it being tackled inappropriately. Instead of government initiatives starting to solve the problem by empowering those SMEs which are in ICT industry who are ICT service or product providers, most initiatives have been targeting all SMEs in all sectors. This paper presents a qualitative ICT adoption research conducted on 206 ICT SMEs in West Midlands (UK), the majority of whom were face-to-face interviews. The findings show that most ICT SMEs challenges result from the factors which are related to lack of knowledge and skills to adopt new technologies. Specifically, these companies are not provided with the appropriate training and they find government initiatives not always helpful. The paper suggests the best

way to re-train SMES as a key aspect to address the challenges faced by the ICT SMEs in the region.

50F. ICT Service Agreements: Definitions, Purpose and Development Principles

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Service Agreements (SAs) are often inappropriately developed, documented and deployed. For the accurate management of the client's requirements, SAs play a critical role. Appropriate SAs serve both the service provider and the client. The role, content and structure of an SA need to be understood before an attempt to develop them can be mounted to develop them. There are distinct process elements and key development principles for the development of an SA. This paper describes SAs, explores their purpose, content and structure and concludes by describing the eight SA development principles.

51R. Improving Software Quality Through the Use of Statistics: An Initial Approach

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Information systems development is a very important activity that is performed continuously in Information Systems departments. We can say that quality is a complex measurement of a product or service that people demands. However, quality is a measurement that is composed by a set of aspects. Quality measurement can be performed in concrete or abstract form. Software quality is a very important issue that developers must address properly, but a lot has to do with abstract aspects of it nonetheless. We proposed an approach that could reduce the abstractness of software quality measurement. In order to prove it, we conducted a study with encouraging results. We found that end-user participation in the evaluation IS quality can be improved.

52F. Information Security Policy Development for Caribbean Financial Institutions

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Governments of English-speaking Caribbean countries have begun to place greater emphasis on e-government to reduce bureaucratic inefficiencies and are encouraging, through legislation and other inducements, the expansion of e-commerce operations in order to enhance global competitiveness. This has expectedly led to a greater movement of data and with it information security risks. Information security managers continue to grapple with the difficulty of re-engineering policies and standards to meet this new reality. Hence many Caribbean organizations have become more vulnerable to security risks that are initiated internally. This is of grave concern to the Financial Institutions of the Caribbean as they prepare to offer extended services in order to exploit the opportunities expected from the introduction of the Caribbean Single Market and Economy. In addition, these institutions attempt to increase their share of both remittances from the Caribbean Diaspora and foreign direct investments which also serve to exacerbate these issues. These organizations are less capable of stemming the tide of fraud through identity theft and by other means, which are on the rise globally. In most cases these acts are facilitated (inadvertently or deliberately) by the actions of insiders. This paper proposes an approach to the development

of context-based information security policies for Caribbean Financial Institutions aimed at mitigating insider risks.

53F. Infusing Critical and Creative Thinking and Metacognition in ICT Education: A Classroom Study

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Enormous student motivation and perseverance are required for Traditional IT courses. To overcome these problems, IT lecturers at UAE University's University General Requirements Program have promoted a natural way of infusing creative and critical thinking in the classroom by structuring lessons in which students manage their own thinking, not a physical performance in the class. Three main critical and creative thinking methodologies (Open Compare and Contrast, Focused Compare and Contrast, and Determining Parts-Whole Relationships) were used with five ICT sections (about 100 students). This paper describes the new lesson plans, their overall effectiveness, and future plans. It also discusses the impact of these lessons on student learning and comprehension and also in terms of educational goals, contents, and assessment. The outcome of this research indicates that ICT classroom teaching methods changes will help students to become critical thinkers, able to search out, understand, analyze, and synthesize information.

54P. Innovation: To Disrupt or Not to Disrupt?

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Robert D. Childs, National Defense University
John T. Christian, National Defense University
Mehdi Ghods, The Boeing Company

As the pace of change in our world today continues to accelerate, leaders and their organizations are increasingly challenged to remain competitive in the global marketplace. They respond by changing their business and information technology processes, searching for the best human capital, and engaging in partnerships and joint ventures. However, responding is sometimes not enough; the marketplace changes so quickly that merely responding to the environment can leave organizations operating behind the curve. A more proactive response to today's environment is frequently required -- a response that anticipates change and that shapes the environment and the future.

Shaping the environment does not come naturally to organizations that are accustomed to operating in the stable environment of the 20th century. Twentieth century organizations were designed for consistency and continuity, and top-level positions in those organizations emphasized management, not leadership. Today's 21st century organizations must be designed for agility, for learning, and for adapting to niche markets and customers. Leadership in these organizations demands strategic thinking, innovative approaches, and in some cases, the ability to create and drive disruptive innovation.

To create and drive innovation in the dynamic, global marketplace, leaders must develop and rely on abilities and skills that were not recognized in earlier and more stable environments. They must be able to create, drive, and lead change; to find, motivate, and retain highly mobile information age workers; to use information technology in novel and creative

ways; and to challenge and change mindsets both within and outside their organizations. This panel was developed to explore these abilities.

For the first sixty minutes of this panel, the panelists will give presentations focusing on the leadership, organizational, and cognitive variables that mediate the success of disruptive innovation. Dr. Robert Childs will examine key leadership strategies such as collaborating across boundaries, building partnerships and learning communities, and attracting high-tech human capital. Dr. Gerry Gingrich will discuss the leadership strategies of challenging and changing mindsets and motivating and retaining information age workers. Dr. John Christian will examine the importance of an information technology portfolio that proactively focuses on research and development to explore disruptive technologies. Dr. Mehdi Ghods will conclude the formal presentations with a discussion of private sector strategies for creating and enabling disruptive innovation in support of increased competitive strength.

For the last thirty minutes of the panel, there will be a forum involving both the panelists and the audience. The forum is intended to integrate the presentations with the audience members' experience. For example, how useful are the best practices discussed in the panel to the audience members' organizations? Are the lessons learned more useful in the private sector than in the public sector? Should they be modified for one sector or the other? If so, how? The panelists will facilitate the discussion.

56F. Knowledge for Managing Information System Security: Review and Future Research Directions

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Information systems (IS) security is traditionally seen as technically-oriented. Technologies alone, however, cannot secure an organization's information systems at an optimal level. As such, scholars have called for more research on non-technical factors that play an important role in IS security, including human, managerial, and organizational issues. This paper aims to review and synthesize those studies that have been done on non-technical issues by applying knowledge management concepts as a tool and lens. It also identifies some issues that require further research.

57F. Knowledge Management Systems From Description to Prescription: An Actor Network Approach

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As the awareness of the importance of managing organizational knowledge grows, the issue of how to build information and communication technology (ITC)-based systems to support knowledge management activities, i.e., knowledge management support systems (KMSSs), has been raised. However, knowledge and its manipulating activities, by their very nature, are socio-technical phenomena in which social and technical factors interweave the ways in which people work. Therefore, the success of any knowledge management support system depends not only on its technical excellence, but also on its compatibility with the social and cultural fabric of the firm in which it is embedded. In this exploratory work it is argued that actor-network theory (ANT) provides theoretical foundations for the KMSS development process. In order to apply ANT in the context of knowledge management, several concepts are introduced, namely, Business Thing, Knowledge Thing and Knowledge Actor, together with a Role ontology.

58F. Knowledge Sharing from Domain-specific Documents

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Recently, collaborative discussions based on the participant generated documents, e.g., customer questionnaires, aviation reports and medical records, are required in various fields such as marketing, transport facilities and medical treatment, in order to share useful knowledge which is crucial to maintain various kind of securities, e.g., avoiding air-traffic accidents and malpractice. We introduce several techniques in natural language processing for extracting information from such text data and verify the validity of such techniques by using aviation documents as an example. We automatically and statistically extract from the documents related words that have not only taxonomical relations like synonyms but also thematic (non-taxonomical) relations including causal and entailment relations. These related words are useful for sharing information among participants. Moreover, we acquire domain-specific terms and phrases from the documents in order to pick up and share important topics from such reports.

60F. Managing Icelandic IT Operations Through Outsourcing

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Iceland is a country in which the overwhelming majorities of its citizens regularly uses computers and are technologically literate. A review of CIOs representing 11 large corporations (by Icelandic standards) in seven industries yielded a set of trends that have emerged as representative of current Icelandic computer-based initiatives. Among these trends: a desire to reduce labor costs is not the primary reason for outsourcing; project management and requirements determination skills are in need; the establishment of IT strategy is typically not driven by the board of directors; while establishing systems that satisfy international standards is sought by most companies, none are eager to pursue certification; outsourcing is generally restricted to the fewest possible time zones; the most commonly used country for outsourcing is the Baltic nations and India; IT departments utilize outsourcing to secure sophisticated skills for one-time tasks, thereby permitting the company to maintain small IT staffs. Industry seeks business school graduates who can contribute IT strategy in the board room, create effective requirements documents, and possess a vision with respect to the application of technology to the competitive nature of business.

61F. On Broadening Software Development Productivity Research to Serve Better Software Engineering Management

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The unresolved problems of improving software engineering management require a broader systemic approach of investigating related issues like software development productivity. The paper links software engineering management to research on software cost estimation and on factors affecting software development productivity. It examines ways for the systemic incorporation of all issues influencing a software project through applica-

tion of combination of methods from diverse paradigms.

62F. On the XML Data Stream and Xpath Queries

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With the growing importance of XML in data exchange, much research has been done in providing flexible query mechanisms to extract data from XML documents. In this paper, we focus on the query evaluation in an XML streaming environment, in which data streams arrive continuously and queries have to be evaluated even before all the data of an XML document is available. We will propose an algorithm for this issue, working in $O(|T|\cdot Q_{leaf})$ time and $O(|T|\cdot Q_{leaf})$ space, where Tleaf stands for the number of the leaf nodes in a document tree T and Qleaf for the number of the leaf nodes in a query tree Q.

63F. Operations and Tool Support for Public View Transformations of Business Processes

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This paper shows operations on models to derive Collaborative Business Processes models on a conceptual level that satisfy the requirements of information hiding and furthermore to use these reduced models for a configuration of executing information systems.

64R. People Aspects of Business Process Management: Determinants of Process-oriented Behavior

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This paper reflects on the people aspects of Business Process Management (BPM). Introducing BPM as a standard way of working in the organization impacts people and implies change in the corporate culture. Success will ultimately depend on the views of people to perform their task. In such a BPM environment, employees at all levels are expected to behave in a process-oriented, more specifically cross-functional, way. This paper aims at clarifying what such process-oriented behavior entails, i.e. which competencies are needed to be process-oriented at the individual level. Empirical research will be used to develop a list of presumed indicative competencies for Business Process Orientation (BPO).

65F. Process Orientation in Enterprise System Implementation: An Empirical Study

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During the early 1990s, the concept of process orientation attracted the interest of many researchers and practitioners. However, evidence from the available literature showed that the measurement of process orientation

and its effect on the organizations was not well developed (Regev et al., 2005; Balzarova et al., 2004; Lockamy and McCormack, 2004; Ruth, 2004). In an approach to gain a better understanding of this subject we prepared a measurement system based on the literature review and our understanding of process orientation in organizations and conducted an empirical study to explore different dimensions of Enterprise Systems (ES) implementation in large North American firms. The main goal of this study is to measure the level of process orientation in organizations and its effect on the implementation of ES.

66F. Public Policy Analysis Re-Imagined With Web 2.0 Applications

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For any public policy analysis to be effective it must include the broad study of the actions, as well as interactions, of the various interveners in that particular public policy object. In the past this has not been possible because of the lack of tools to identify, communicate with and collect data from all those interacting with an object of public policy. Web 2.0 applications have, for the first time, given rise to the real possibility of creating a 'new consciousness' among public policy actors, allowing policy analysts to 'actively' survey, observe and follow public policy interactions in real time, allowing for a new means of public policy analysis to take place.

67F. Recruitment Methods Used by Software Industry in Pakistan: Issues and Concerns

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The research aims to examine the relationship between the organization size and the recruitment methods used. It also examines the differences in recruitment methods for filling the managerial and non managerial positions and exploring possible reasons for switching between these methods among IT organizations. We found that there is a significant relationship between the organization size and the frequency of recruitment. The smaller organizations tend to recruit more frequently as compared to larger organizations. The results also show that there is significant positive relationship between the size of organization and the choice of methods for recruitment of professionals. Most software houses find it difficult to recruit individuals with adequate professional training, skills and experience. Most professionals in the industry are fresh graduates with a sound theoretical base but with inadequate practical experience and skills. Software houses can help in developing these fresh graduates in more mature professionals by offering extensive internship programs.

68P. SMEs, ICT Use And Capabilities: A Panel Discussion

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SMEs are generally seen as being at a disadvantage to larger businesses. They are likely to have a limited availability of resources in terms of time, money and expertise (Wymer and Regan, 2005). Furthermore, small businesses are likely to have a heavy reliance on the ex-

pertise and motivations of an owner-manager. In particular, the extent of their technological knowledge and expertise, and their attitude towards ICT seem bound to have a large bearing on the company's ability and willingness to engage with the digital economy (Pavic et al, 2007, Wymer and Regan, 2005).

SMEs are often constrained by the lack of skills, managerial capabilities, as well as the paucity of internal and external relationships (with skilled personnel, and partner organisations and networks) that enable them to exploit ICT strategically (Ritchie and Brindley, 2005; Caldeira and Ward, 2002; Knol and Stroeken, 2001; Stroeken, 2001). Indeed the need to build ICT-related capabilities and competencies within SMEs was specifically identified by a variety of studies (for instance, see Observatory of European SMEs, 2003). Many countries around the world, both developed and developing, have also been implementing a variety of policy mechanisms to promote the use of ICT by SMEs, often with mixed results (OECD, 2004).

When SMEs adopt ICT, many seem to confine their use to operational rather than strategic purposes. Although the work of Levy, Powell and Yetton (2001) shows that SMEs can behave strategically when it comes to ICT adoption, they also point out that the vast majority of literature on ICT adoption by SMEs point to the operational nature of these investments, driven as they often are by cost and efficiency considerations (Hagmann and McCahon, 1993; Yetton at al, 1994). It may be that owing to poor capabilities, SMEs are often missing out on opportunities to innovate using ICT and to behave strategically.

As both markets and technologies have undergone rapid transition over the 1990s and 2000s, we need to revisit current practices within SMEs in relation to ICT use. This highly interactive panel aims to explore these issues surrounding the adoption and use of ICT by SMEs from various national contexts.

69F. Solving the Traffic Problem by Using A Simulation Model

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This paper presents a traffic light simulation model, which is composed of 6 submodels coded in Arena to help analyze the traffic problem. The model adopts average arrival time and average departure time to simulate the arrival and leaving number of cars on roads. In the experiment, each submodel represents a road that has 3 intersections. The simulation results show that different traffic light duration policies will cause different effects on traffic congestion. Therefore, we can use this model to obtain a good traffic light duration policy for solving the traffic problem.

70F. Some Implementation Issues for Security Services based on IBE

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Identity Based Encryption (IBE) is a public key cryptosystem where a unique identity string, such as an e-mail address, can be used as a public key. IBE is simpler than the traditional PKI since certificates are not needed. An IBE scheme is usually based on pairing of discrete points on elliptic curves. An IBE scheme can also be based on quadratic residuosity. This paper presents an overview of these IBE schemes and surveys present IBE

based security services. Private key management is described in detail with protocols to authenticate users of Private Key Generation Authorities (PKG), to protect submission of generated private keys, and to avoid the key escrow problem. In the security service survey IBE implementations for smartcards, for smart phones, for security services in mobile networking, for security services in health care information systems, for secure web services, and for grid network security are presented. Also the performance of IBE schemes is estimated.

71F. Student Survey on Computer Security Awareness And Responsiveness

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University students are very knowledgeable internet users, yet there seems to be disconnect between their actions and the security of their computer systems. This paper reports the results of an on-line survey of students' awareness of security threats on-line and their preparation to meet those threats.

72F. Study of Mobile Commerce Adoption: A Conceptual Model

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Many Asian countries are moving ahead aggressively in mobile commerce (m-commerce). China is expected to be another country that will experience rapid development in m-commerce. Although the number of mobile phone users in China had exceeded 523.3million by the end of September 2007, m-commerce adoption (MCA) in China is far behind that of Japan and Korea. The purpose of this paper is to provide a theoretical model by considering cultural and institutional factors so as to help us to better understand such phenomenon. Using the theory of planned behavior (TPB) as theoretical foundation, the model incorporates such factors as user satisfaction, cultural, institutional, and demographic aspects, which we believe, are more relevant to MCA.

73F. Supporting Electronic Collaboration in Conceptual Modeling

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We study collaborative modeling by analyzing conversations and loud thinking during modeling sessions and the resulting models themselves. We identify the basic activities of the modeling teams on the social, pragmatic, semantic and syntactic levels and derive a schema for the pragmatic level. Our main conclusion is that team-based modeling is largely a negotiation process. Drawing on these results we derive an architecture of a system that supports the distributed development of conceptual models.

74F. Taking IT Artifacts Seriously: Developing a Mixed Determinants Model of Assimilation of Telehealth Systems

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A number of healthcare authorities are considering the adoption of telehealth into mainstream clinical care, bringing telehealth technology out of experimental settings into real life settings. To fully reap the benefits from a technological innovation, the innovation must be assimilated into the organization's work

system. As most literature on telehealth adoption to date has focused on its evaluation (e.g., user acceptance), more work is warranted to understand how telehealth can be integrated into administrative and clinical practices and to identify factors that may impinge onto telehealth integration. Borrowing from institutional, structuration and organizational learning theories, we propose a research framework to address limitations of past work and to guide research and managerial actions while integrating telehealth in the workplace.

75F. Testable theory development for small-N studies: critical realism and middle-range theory

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Theory testing within small-N research designs is generally considered problematic. Developments in the philosophy of social science have opened up new methodological possibilities through, among other things, a novel notion of contingent causality that allows for contextualized hypothesis generation, hypothesis testing and refinement, and generalization. This article looks to contribute to the literature by providing an example of critical realist (one such new development in the philosophy of social science) research on a small-N comparative case study that includes hypothesis testing. The article begins with the key ontological assumptions of critical realism and its relation to theory and explanation. Then, the paper presents an illustrative example of an e-government and trust comparative case study following these ontological assumptions. Given word length limitations, the focus of the example is on the nature and process of theory and hypothesis development, rather than the actually testing that occurred. Essential to developing testable hypotheses is the generation of tightly linked middle-range and case-specific theories that provide propositions that can be tested and refined. The link provides a pathway to feedback the concrete empirical data to the higher level (more abstract) and generalizable middle-range theories.

76F. The Case for Conceptual Research in Information Systems

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Conceptual Research - a non-empirical research method- is among the three most used research methods in the discipline of Information Systems. However, its principles and foundations are implicitly used by researchers. Thus, its importance for advancement and development of the IS discipline is underestimated when it is compared with empirical research methods. In this research article, we develop the case for conceptual research. For this aim, we first review the main IS research method taxonomies reported in IS literature, and an integrative framework of IS research methods, based on Theory of Systems is developed. Second, we explain the place and relevance of the conceptual research method in this new framework. Finally, we illustrate the framework's usefulness with four exemplary research papers reported in top IS journals.

77F. The Critical Success Factor Method: A Review and Practical Example

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Since the CSF method was first proposed by John Rockart in 1979, the method has been

adopted for numerous research studies in Information Systems (IS). Like many research methods, the CSF method has both its supporters and critics. Almost thirty years on, this paper provides a comprehensive review of the original CSF method and of subsequent adaptations. The primary contributions and criticisms of the method are synthesized. The paper then discusses insights gained from the application of an adaptation of the CSF method in a large study involving six multi-national IT services organisations, thereby providing guidance to researchers who may consider using the method in future research.

78R. The Determinants of Quality in Public (e)-procurement: An Analysis of the 13 National Procurement Hubs in the European Union

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Considering the existing literature, the need to reduce public expenditure and to increase EU citizens welfare, EU countries Centralized Department aim or should aim to reduce bureaucracy, and to increase the quality of goods and services acquired, also through proper e-procurement strategies and tools. The research will aim to understand both drivers and barriers for economic and quality results of centralized public procurement in the 13 EU countries, collecting qualitative and quantitative data concerning the following aspects: a) country public system, b) governance and organizational indicators (size, competences, etc.), c) stakeholder map, d) financing model, e) legal framework, f) core activities, g) public client (or users) identification and management, h) suppliers and bidding selection criteria, i) e-business-government relationship, l) performance measurement and quality monitoring, m) e-procurement solutions adoption. With respect to these factors, the research will then evaluate the role of the Central Departments in intermediating between demand and offer, that is, between their own clients (i.e., individual public administrations) and the different market sectors.

79F. The Impact of Strategy and IS Flexibility on Performance in the Supply Chain Context: A Path Analysis Approach

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Little is known about the interrelationships among flexibility, strategy, and performance in the supply chain context. This paper reports the effect of various types of strategy and information systems flexibility (ISF) on performance in the supply chain. Using the data collected from 175 small- and medium-sized manufacturing (SME) firms in Canada, we examine the effect that three different strategies with ISF have on performance. The study produced three main conclusions. First, the findings provide evidence of the direct effects of strategy on ISF. Second, the total effect of strategy and ISF positively impacted non-financial performance. Third, the total effect strategy and ISF have no impact on financial performance. The main implication is that the investment in ISF should be involved in the strategic decision-making.

80F. The Importance of Normative Social Influence and Similarity of Media Preferences on Group Meeting Outcomes: A Preliminary Result

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Motivated by a desire to extend the Social Influence Model of Technology Use, this paper empirically examines the impact of normative social influence on group media preference patterns and group meeting outcomes in a setting where established groups voluntarily used various communication media over a three-month software development project period. The overall results suggest that conformity to group norms is positively associated with increased similarity of group media preferences, which in turn is positively associated with increased group meeting outcomes. The paper concludes with a discussion of the importance and implications of understanding normative social influence on technology use and meeting outcomes.

81F. The Role of E-collaboration Technologies in the Design of Virtual Organizations: Brazilian Cases

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The Internet and other integration tools, such as software for supply chain management (SCM), as well as electronic interactions between business players in the product's value chain, have transformed the economy. This transformation has been described by a variety of names, including innovation economy, knowledge economy, network economy, informational economy. The convergence and interaction between a new technological paradigm and a new organizational logic constitute the historic basis of informational economy. Thus, the present research aims to analyze the role of E-collaboration technologies in the design of virtual organizations. The methodology adopted for this research was case study, performed in two organizations from the manufacturing sector. The study investigated the main variables involved in the company's process of organizing itself virtually, with direct reflections on its organizational design.

82F. The Socio-technical Balanced Scorecard: A Framework For Assessing a Public University

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The socio-technical theory is concerned with human well-being; it is democratic, humanistic and provides both freedom and knowledge to those who are part of it. Balanced scorecard is an approach that assesses whether the organization is meeting its objectives in terms of vision and strategy. It measures four perspectives: financial, customer, internal business processes and innovation & learning. Although the balanced scorecard has proven to be fruitful in the for-profit organizations of the past, most non-profit organizations had difficulty applying the balanced scorecard. The original configuration of balanced scorecard placed financial goals on the top of the hierarchy and since maximizing shareholder wealth is not the main objective for most non-profit organizations, it was not widely applied by these organizations. As non-profit organizations commonly operate on humanistic welfare paradigm and well-being of the society, the ideas of socio-technical work design may receive a greater acceptance in these organizations than in for-profit organizations. Hence, a socio-technical balanced scorecard for the non-profit organizations will be developed with an emphasis on employee perspective. More specifically, a public university wide assessment will be proposed in this paper.

83F. The Use of ICT for Social Development in Underprivileged Communities in Egypt

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Emerging information and communication technology (ICT) is setting the pace for a changing, competitive and dynamic global community. The transformation process seems rapid, concrete and smooth in developed nations with less promises and achievements in the developing world. These emerging technologies represent the platform for business and socioeconomic development in the 21st century. Therefore, it is becoming a real-time challenge for developing nations to keep pace with the developments taking place worldwide but also to have equal access to its own community in terms of technology literacy and usage for socioeconomic development purposes. Building the infrastructure will not realize quantum leaps in the development process unless it is coupled with concrete projects and activities that engage the community at large with its different segments and groups irrespective of their locations whether urban or remote, gender or background. This paper describes the experience of community development centers in Egypt and its role in diffusing ICT for societal development and digital inclusion based on a review of a number of community development centers models that were implemented since the mid 1980s.

84R. Towards a Framework for Balancing Enterprise Systems Flexibility

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Given the uncertainty and changing business conditions faced by North American manufacturers, the need to balance the flexibility of an organization's information system is more important now than ever before. Too much flexibility may result in workarounds and corrupt data leading to increased inefficiencies and levels of waste, contrary to production goals. Too rigid a system makes it difficult for the organization to adequately respond to uncertainty and change key business process to respond to changing environmental conditions. This research examines the need to balance flexibility in enterprise systems for optimal organizational effectiveness.

85F. Transition to B2B e-Marketplace Enabled Supply Chain: Readiness Assessment and Success Factors

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This paper explores the development of Supply Chain Management studies and identifies three eras: Creation, Integration, and Globalization. The study then focuses on the development of supply chain management in the integration era, and specifically on the identified gap in adoption of web based processes. Electronic Market places are introduced as one of the web based tools that can help with the integration of inter and intra organizational supply chains. We proposed a transition model that organizations go through during the adoption of electronic market places. We describe our proposed transition model and highlight the importance of readiness analysis and success factors of electronic marketplace adoption.

86F. Usages and Effects of Information and Communication Technologies on Small and Medium Sized Enterprises in Oman

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This paper presents the results of an exploratory study carried out to learn about the usages and effects of Information and Communication Technologies (ICT) in Small and Medium Sized Enterprises (SMEs) in Oman. The study investigates ICT infrastructure, software used, driver for ICT investment, perceptions about business benefits of ICT and outsourcing trends of SMEs. The study provides an insight on the barriers for the adoption of ICT. Lack of internal capabilities, high cost of ICT and lack of relevant information about ICT solutions and implementation seems to be some of the major barriers in adopting ICT. The results of the study show that SMEs in Oman are gradually investing in and adopting ICT. The main driving forces for ICT investment are to provide better and faster service and to stay ahead of the competition. A majority of surveyed SMEs have reported a positive performance and other benefits by utilizing ICT in their businesses.

87F. User Profiling for Search Engines' Help Systems

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The Help Systems information provided by search engines can facilitate or hinder its user's information seeking process. This paper reports a study in how users would like to see search engines' Help Systems to be organized and presented. Six aspects of Help Systems, including navigation, design elements, technical help, conceptual help, terminological, and strategic aspects, were used as the framework to develop questionnaire for further study in stereotyping search engine users. Overall users do not expect animations, videos and speech as part of a search engine's Help System, technical help is desirable, and the navigation to find Help page and relevant content is important.

88R. Utility Computing Framework And Its Impact On The Medical Industry

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Transferring Utility Computing (UC) is an on demand delivery of enterprise applications and business process in a shared, secured and scalable standards based environment over the Internet. The impact of this new technology will be seen in many areas, but significantly more in the medical area. As this would make patient records portable and allow other heterogeneous systems to access information via the Utility Computing network. This paper discusses one such possible impact in making medical applications deliverable through the Utility Computing model. Though many service oriented architectures have failed before to deliver on their promises of remote delivery of IT services, the ubiquitous nature of computing which is now present is the motivating factor for computing to be seen in a "Utility model".

89F. Utilizing Environment Knowledge for Competitive Advantage

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The business environment is increasingly becoming uncertain and complex due to many

factors and as a result environmental knowledge is becoming critical for organizations to survive and remain profitable in a highly dynamic, competitive, and volatile business environment. Organizations need to continuously monitor their environment and use this knowledge for making necessary adjustments in their business moves to stay relevant and competitive in the market. The main objective of this study was to investigate the environment scanning initiatives of Small and Medium Enterprises (SMEs) in Singapore and how this knowledge was processed, shared and utilized. A pre-tested questionnaire was used for collecting data and 46 SMEs, representing different industries, participated in the study. It was found that a majority of the participating companies were facing severe competition and nearly 85% of them considered environmental knowledge critical to their survival and growth. However, only one-half of the companies were regularly capturing, filtering, and disseminating the environment knowledge to their staff, while the remaining companies were undertaking these activities on an ad-hoc basis. This paper offers certain suggestions for systematic capturing and utilizing of environment knowledge by SMEs.

90F. Web Homepage Design: An Analysis of New Zealand's Top 50 Web Sites

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The gateway to any Web site is its homepage. Thus the design of the homepage is critical to make a positive first impression and to guide the visitor through the site. The purpose of this study is to analyze the homepage on New Zealand's top 50 Web sites to assess their compliance with internationally recognized standards for Web homepage design. Twenty-four Web homepage design criteria in three areas – page design, navigation, and usability – are applied to the homepages using observation as the research methodology. New Zealand homepages are well designed in criteria such as text font, color, and highlighting for emphasis. NZ homepages also meet international standards for logo placement, provision of navigation links, and avoiding the use of frames and popup windows. On the other hand, there is room for improvement in homepage layout, link descriptions and color, and provision of site maps and privacy policies.

91F. What Is Process Standardization?

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Standards and standardization have played an important role in the evolution of information and communication technology. In parts of the literature on standardization and especially among practitioners we see a new theme emerge: business process standards. While there seems to be a consensus on the desirability of process standards, the concept has not yet been fully developed, and there is even less of a clear definition let alone a systematic understanding of the how and why of its value impact than with data and communication standards. In this paper, we suggest a process standardization construct and the associated value dimensions and report on a process standardization effort in a large multinational services firm that reveals how the theoretical considerations translate into concrete business value.

92P. What It Takes for a CIO to Be a CEO: Future Leadership Strategy

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Based on the data from the CIO Executive Council, this panel taps into research about successful executives. We focus on the competencies CIOs need to develop to take the corner office, where CIOs fall short—and what CEOs expect from CIOs. Some of the key questions that this panel will evaluate are as follows:

- CIOs vs. CEOs—What are the similarities and differences?
- What is the impact of non-effective IT Leadership upon ongoing competitiveness and sustenance of businesses?
- How can a candidate figure his/her Executive Quotient (EQ)?
- Is the measurement of the EQ metric effective?
- How does one improve his/her Executive Quotient (EQ)?
- Can the Future-State CIO model play a larger role in driving, not just enabling, business strategy?
- What are the lessons learned that should they shape the next practices (not necessarily best practices since the word best is contextual)?

93R. Where is New Zealand at With Radio Frequency Identification in the Supply Chain? – A Survey Result

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A recent survey on the adoption of radio frequency identification (RFID) in NZ indicates the uptake of RFID in NZ's supply chains is at an early stage. Although there are leading trials and the technology has been well publicized in the country, most local companies do not have RFID on their investment plans. The survey revealed the reasons why NZ's companies are adopting and not adopting RFID. It also revealed that there is an urgent need to address the satisfaction level of RFID implementation in order to facilitate the uptake of RFID in NZ and around the world.

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