CONFERENCE PROGRAM

BUSINESS INFORMATION SYSTEMS 2004

BIS at glance

WEDNESDAY

		room 213A	*room 236A*
12:00-15:00		e-Negotiations of Contracts - Willy Picard, The Poznan University of Economics, Poland	Outsourcing in Small and Medium Banks - Ruediger Weissbach, Hamburg University of Applied Sciences, Germany
15:15-18:15		Architectural Design and Programming of Enterprise Information Systems - prof. Leszek A. Maciaszek, Macquarie University, Australia	

THURSDAY

	Aula
9:45-11:15	Inauguration Session **Keynote Speaker** Prof. Peter Lockemann, University of Karlsruhe, Germany
11:15-11:30	*Coffee Break*
11:30-12:30	**Keynote Speaker** Mark Breier

	room 301A	*room 213A*	*room 236A*	*room 417 A*
12:35-14:05	Artificial Intelligence	Keynote Speakers Gregory Kersten, Konrad Makomaski	Software Engineering	Sources of Funding for Innovative Start-ups.
14:05-15:00	*Lunch*			
15:00-15:45	**Keynote Speaker** Martin G. Curley, Intel (room 301 A)			
15:45-16:00	*Coffee Break*			
16:00-17:30	Business Practices (1)	Theory and Applications of e-Negotiations (2)	e-Learning	General BIS (1)
17:35-19:05	Business Practices (2)	Theory and Applications of e-Negotiations (3)	Panel on e-Learning	General BIS (2)

19:30	***Dinner***

FRIDAY

	room 301A	*room 213A*	*room 236A*
8:15-9:15	General BIS (3)	Information Retrieval and Filtering	Student Session (1)
9:30-11:00	**Keynote Speakers** Wolfgang Koenig, Johann Wolfgang Goethe Universität, Germany, Leszek Maciaszek, Macquarie University, Australia (room 301 A)		
11:00-11:15	*Coffee Break*		
11:15-12:45	e-Government (1)	"How to write the successful journal papers?" Panel	Student Session (2)
12:50-14:20	e-Government (2) SAS Public Administration Intelligence Solution	Language Technologies for Business Applications	Student Session (3)
14:20-15:15	*Lunch*		
15:15-16:45	e-Government (3) MOBICITY	OntoBIS	
16:45	Closing Session		

Preamble

BIS 2004 is the 7th International Conference devoted to Business Information Systems that will take place in April 2004 in Poznań, Poland. BIS 2004 aims at discussion of the development, implementation, application and improvement of computer systems for business applications. It is addressed to the scientific community, people involved in the development of business computer applications, consultants helping to properly implement computer technology and applications in the industry. I hope that during the conference there will be an opportunity for interesting international discussions. This will be facilitated by a number of invited lectures presented by international experts. Over 60 scientists from diverse countries were invited to participate in the BIS 2004 International Program Committee – from the United States of America to Australia, from countries with a stable economy through to those undergoing economic transformation. This helped further enrich the conference program, which covers such topics as artificial intelligence, ontologies, e-learning, information retrieval and filtering, software engineering, language technologies for business applications, e-negotiations, business practices and others.

Witold Abramowicz
The Poznań University of Economics, Poland
Program Committee Chairman

Poznan, 21-23 April 2004

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Keynote and Invited Speakers

Peter C. Lockemann
University of Karlsruhe, Germany

Technology Transfer: Political Pressure, Economical Necessity, Social Phenomenon, Financial Reward, or Intellectual Pleasure?

Thursday, April 22, 2004, 10:15 Aula

Dr. Peter Lockemann has been a Professor of Informatics at the University of Karlsruhe since 1972 and a director of the Computer Science Research Center at Karlsruhe (FZI) since 1985. He has held appointments at California Institute of Technology, Naval Postgraduate School at Monterey, University of Florida and MIT, and is a regular visitor to the research institutions in Silicon Valley. Dr. Lockemann has more than 30 years of experience in database research. His current interests center around the area of distributed and collaborative data-intensive computer applications, with results applied in areas such as engineering databases, traffic databases, electronic commerce, digital libraries, environmental information systems.
He is the author of four textbooks and well over 100 research papers in journals, conference proceedings and books. An additional 350 papers have been published by his young researchers and Ph.D. students.

Dr. Lockemann is a member of the IEEE Computer Society, the Association for Computing Machinery and the German Computer Society. He was a National Representative to IFIP TC8 on Information Systems. From 1981 to 1997 he was a trustee of VLDB Endowment, Inc. and served as its Secretary from 1989 to 1993 and as its President from 1993 to 1997. He served on numerous program committees and held many PC chairs.

As chief officer of FZI, a highly successful institution for technology transfer, he devotes considerable time to issues of technology transfer to medium-sized high-technology companies. In this capacity he plays a leading role in fostering a regional culture for IT industry. He participates in activities of the local Chamber of Commerce and the city of Karlsruhe, has been instrumental in stimulating various regional networks for industry and science, and is a member of the supervisory boards of several young IT companies.

Mark Breier

Thursday, April 22, 2004, 11:30 Aula

Mark Breier is an author, investor, Internet veteran, and marketing expert. Mr. Breier is managing partner of Fast Angel Ventures, an angel fund that invests and advises in technology start-ups. He publishes a popular monthly e-newsletter of "10-second tips" to help managers cope with issues such as email, meetings and branding. He is a member of the Chairman's Council of Conservation International, dedicated to preserving the world's biodiversity through science and economic cooperation. He also serves on the boards of ecFood, a supplier to the food industry and MultiDigit, Inc., a developer of technology that streamlines data input into cell phones.

Mr. Breier served as president and CEO of Beyond.com, where, in his first year, he helped propel it to one of the top 10 e-commerce sites, with a market capitalization of more than $1 billion, and $250 million in financing. In his second year, as the investor wave moved away from consumer (B2C), Mr. Breier lead the troops in transforming Beyond into an Internet infrastructure company.

Before Beyond, Mr. Breier led another Internet trailblazer, Amazon.com, as vice-president of marketing. There he was a key player in Amazon's hypergrowth to 1+ million customers and 1,000+ employees. Mr. Breier was the impetus behind the ingenious marketing campaigns that included funny radio ads - Is the Pentagon (or Rose Bowl) big enough for Amazon.com's books? Of course not. His innovative promotions included advertising themes such as "Would you like to write a book with John Updike?"

Mr. Breier's traditional business acumen was developed as vice-president of marketing at Cinnabon Corporation and as a group brand manager with Dreyer's/Edy's Grand Ice Cream. His role in market research advertising and trend analysis helped make Dreyer's the leading premium ice cream. Mr. Breier has also held brand management positions at Kraft Foods, Inc. and General Mills, Inc. He holds a bachelor's in economics from Stanford University and a master's in business administration from the Stanford Graduate School of Business.

Martin G. Curley

Director IT Innovation, Intel Corporation
Ireland

Thursday, April 22, 2004, 15:00 room 301 A

Martin Curley is Director of IT Innovation at Intel Information Technology (IT) based in Ireland. He drives development and adoption of

emerging technology and IT business practices in support of new business solutions. Most recently Martin was director of IT People, Intellectual Capital and Solutions for Intel IT. Previously, Martin held a number of IT Management positions for Intel, including co-Director of IT Strategy and Technology based in Sacramento, California and Fabrication Plant 14 Automation Manager based in Dublin, Ireland. Martin has also held senior IT management and engineering positions at General Electric in Ireland and Philips in the Netherlands. Martin has a degree in Electronic Engineering and a Masters in Business Studies from University College Dublin, Ireland.

Wolfgang Koenig
Johann Wolfgang Goethe-Universität, Institut für Wirtschaftsinformatik, Germany

Friday, April 23, 2004, 9:30 room 301 A

Wolfgang Koenig received a diploma in Business Administration in 1975 and a diploma in Business Pedagogic in 1977, both from Frankfurt University. At the same university, he was awarded the Ph.D. degree in 1980 ("Hardware-Supported Parallelization of Information Systems") and completed his habilitation thesis - a kind of advanced Ph.D. degree - in 1985 ("Strategic Planning of the Information Systems Infrastructure"). From 1985 to 1991, he was appointed Professor of Information Systems at the Koblenz School of Corporate Management, also serving as Dean from 1986 to 1988.
In 1991, he became Professor of Information Systems at the Frankfurt University, in the Economics and Business Administration Faculty, and since then he has run the Institute of Information Systems.
All in all, he spent more than two years working in the US, in particular at the IBM Research Laboratories in San Jose, CA, and Yorktown Heights, NY, as well as at the Kellogg Graduate School of Management, Northwestern University, Chicago/Evanston, IL, at the University of California at Berkeley and at the University of Hawaii at Manoa. From 1995 to 2000, he headed an interdisciplinary research program sponsored by the German National Science Foundation on "Competitive Advantage by Networking - the Development of the Frankfurt and Rhine-Main Region". Since end of 2002 he chairs the "E-Finance Lab Frankfurt am Main", a joint research program of Accenture, Deutsche Bank, Deutsche Postbank, Finanz_IT, IBM, Microsoft, Siemens and T-Systems (all tier-1-partners), and DAB bank, IS.Teledata and VR NetWorld (all tier-2 partners), in conjunction with the universities of Frankfurt and Darmstadt. He serves as Editor-in-Chief of the leading Mid-European IS journal "WIRTSCHAFTSINFORMATIK"

(www.wirtschaftsinformatik.de). He is member of the board of external directors of several companies. His research interest is in standardization, networking, and e-finance.

Leszek Maciaszek
Macquarie University, Australia

Round-Trip Engineering and Testing in Agile Software Development

Friday, April 23, 2004, 9:30 room 301 A

Prof. Leszek Maciaszek has been developing application and system software for mission-critical business information systems for the past thirty years. He considers databases the centre of gravity and engagement for development of enterprise information systems, but has been a vocal critic of relational database technology. He keenly watches the move of databases towards objects. Originally from Poland, he lives in Australia since 1985. Since 1991, he has been an Associate Professor of Computing at Macquarie University ~ Sydney, Leszek has worked and consulted interchangeably in academia and industry in countries on four continents. Apart from teaching in universities, he has been a regular trainer to IT industry and presenter of research papers, keynotes, and panel position statements at major international conferences. He has extensive consulting experience, frequently to large international corporations, and including coordination and supervision of large-scale enterprise information systems. Leszek's extensive list of published contributions includes a number of textbooks and reference books. Main past book titles are: "Database Design and Implementation" (Prentice Hall, 1990) and "Requirements Analysis and System Design. Developing Information Systems with UML" (Addison Wesley, 2001). The latter has been translated to several languages and the second edition will be published in mid 2004. He is also the lead author of a comprehensive forthcoming software engineering textbook "Practical Software Engineering. A Case-Study Approach" (Addison-Wesley, 2004).

Thursday

Theory and Applications of e-Negotiations (TAEN-1)

12:35 – 14:05, room 213 A
Session Chairs: Wojciech Cellary

Invited Talks
Gregory Kersten, University of Ottawa and Concordia University, Canada
Konrad Makomaski, Marketplanet, Poland

Investing in the Future - Sources of Funding for Innovative Start-ups

12:35 – 14:05, room 417 A
Session Chair: Marcin Hejka

The session touches the subject of Venture Capital model and the way it works as well as the role of Venture Capital in wealth generation. The comparison between Traditional vs Corporate Venture Capitalists will be provided. Also the issue of Market segment trends will be discussed.

Software Engineering (SE)

12:35 – 14:05, room 236 A
Session Chair: Jerzy Kisielnicki

Elena Ivankina, Département Systemes d'Information et de Décision – ESSEC, Cergy-Pontoise Cedex France, CRI, Université Paris 1 – Panthéon Sorbonne, Camille Salinesi, CRI, Université Paris 1 - Panthéon Sorbonne, Département Systemes d'Information et de Décision - ESSEC
Adapting Ishikawa's cause-effect Diagrams to Understand Requirement Threats
Requirement identification is a vital stage in information system design. Identification of potential issues, their comprehension and management enable to specify new requirements. This paper presents an approach that proposes an integration of cause-effect analysis in requirement engineering domain, especially for threat analysis. It permits to evaluate the reasons of treats occurrence and their consequences on the system. Then a treatment strategies overview and related works are proposed.

Sofiane Sahraoui, School of Business Management, American University of Sharja
Open Source Software: A Research Agenda

Open source software (OSS) is an emerging discipline of business research. However most of the research is concentrated in few areas such as project management within virtual communities, the ethical and legal ramifications of the OSS phenomenon, models of user involvement in OSS projects, and the economics of OSS. Other critical areas have been so far only tangentially investigated. The viability of OSS business models, the impact of OSS on the software industry structure and the new competitive game, the OSS-based national IT strategies and the role of governments and other lobbying groups in promoting or combating OSS are examples of issues that have been only anecdotally accounted for by non-research oriented literature. This short paper tries to identify critical issues that OSS research ought to tackle by briefly defining them and indicating potential avenues of research.

Jarmo J. Ahonen, School of Information and Communication Technology, Seinäjoki Polytechnic, Tuukka Junttila, Heikki Lintinen, Information Technology Research Institute, Markku Sakkinen, Department of Computer Science

An Evaluation of Testing in Object-Oriented Software Engineering Methods

In many software-intensive fields of business the quality of software is critical. In order to get high quality the software must be thoroughly tested and the software engineering process must support testing and quality thinking. Three widely used and well-known object-oriented methods are evaluated from the testing point of view. The evaluation is done by using the NIMSAD framework. The evaluation shows that the methods do not adequately prescribe the testing part of the process. Thus the methods are not yet sufficient for designing a complete, high-quality software process.

Artificial Intelligence (AI)

12:35 – 14:05, room 301 A
Session Chair: Jakub Piskorski

Ryszard Szupiluk, Piotr Wojewnik, Szkoła Główna Handlowa, Polska Telefonia Cyfrowa Sp. z o.o.,Tomasz Ząbkowski, Polska Telefonia Cyfrowa Sp. z o.o., Poland

Data Mining and Independent Component Analysis for Invoice Amount Prediction

A common problem encountered in data mining analysis is finding a suitable model to explore existing dependencies. There are many models with different advantages. Different criteria reflect various aspects of the dependency and so different models can be chosen as an optimal solution. We propose to improve their performance by the means of Independent Component Analysis. Such a transformation seems to capture the essential structure of data solutions in many applications. The efficacy of such approach will be shown on the example of an invoice amount prediction.

Jerzy Duda, Andrzej Osyczka, AGH University of Science and Technology, Stanislaw Krenich, Cracow University of Technology, Faculty of Mechanical Engineering, Poland

Scheduling molding operations in a foundry using multicriteria evolutio-

nary algorithm
The paper describes the application of evolutionary algorithms for multicriteria optimization of molding schedule in a foundry which produces iron castings and uses hand molding machines. A mathematical model is defined and reflects all the constraints resulting from the limited capacities of furnaces and machine lines, limited resources, customers requirement and manufacturing process. A test problem based on real production data is used for evaluation of the proposed algorithm.

Sebastian Kostrubała, Grzegorz Stolecki, Doradztwo Gospodarcze i Zastosowania Informatyki CONSORG Sp. z o.o., Zbigniew Twardowski, University of Economics, Departament of Computer Sciences, Katowice
The Multidimensional Intelligent Analytical Platform in Hybrid Controlling Decision Support System Development
In this paper authors present a new version of analytical line conception - complex platform for designing and building analytical solutions which use fuzzy expert system. Applications based on multidimensional analytical models with fuzzy knowledge bases tend to provide better decision making support in areas covered by controlling processes.

Theory and Applications of e-Negotiations 2 (TAEN-2)

16:00 – 17:30, room 213 A
Session Chairs: Gregory Kersten

Mareike Schoop, Frank Köhne, Dirk Staskiewicz, RWTH Aachen, Germany
A Communication Perspective on Electronic Negotiation Support Systems: Impacts, Challenges, and Solutions
Traditionally, research in electronic negotiation support has concentrated on the economic efficiency of the process rather than on the communicative features. In this paper, a communication perspective on electronic negotiation support systems is introduced. It is argued that there must be an integration of communication support and decision support in order to design effective systems and, furthermore, in order to develop measurements to assess the efficiency of negotiation processes. Our arguments will be exemplified using the negotiation support system Negoisst.

Ryszard Kowalczyk, School of Information Technology, Swinburne University of Technology, Australia, Victor Phiong , Simon Dunstall and Bowie Owens, CSIRO Mathematical and Information Sciences, Australia
Towards Supporting Collaborative Scheduling in Adaptive Supply Networks with Negotiation Agents
This paper presents an approach to support collaborative scheduling in adaptive supply networks. Intelligent decision-making agents represent the interests of different suppliers and customers that independently participate in the network. The agents interact to dynamically select suppliers and build supply schedules. This interaction involves coordinated negotiation and the exchange of schedule proposals and supporting information. The final supply schedule can be composed of complementary

supply schedules offered by several agents.

Xiao Qinghua, Ping Lingdi, Pan Xuezeng, SA Institute of Zhejiang University, China

A General Secure Electronic Auction Protocol

A new secure auction protocol is presented based on the technology of encrypting bidding prices. The protocol can be applied in any type of electronic auction, such as English auction and Vickrey auction. We call it a general auction protocol with which bidders' shares can be used repeatedly. This protocol allocates homogeneous goods more efficiently than others, and avoids leaking any sensitive information about bidders' shares. In this protocol, all bidders' bidding prices are kept secret except for the winner's. Nobody can manipulate the other bidders in our whole auction.

General BIS I (GB-I)

16:00 – 17:30, room 417 A

Session Chair: Peter Lockemann

Ari Hirvonen, TietoEnator Oyj, Mirja Pulkkinen, Information Technology Research Institute

A Practical Approach to EA Planning and Development: the EA Management Grid

The encompassing use of information and communication technology (ICT) assets in today's organisations requires from an ICT services provider new approaches to cope with projects of varying types. In Enterprise Architecture (EA) consulting and development assignments, there are case by case differences in the target area and level of abstraction, project size, time of execution and client factors like organisational maturity and readiness for change. Enterprise Architecture has gained interest as a managerial tool to deal with all ICT assets and their interplay within an entire corporation. Methodological approaches starting with software architecture, IT governance, as well as strategic planning viewpoints, are suggested for comprehensive ICT asset management. Yet, our prior studies have shown that an ICT provider's viewpoint to enterprise architecture consulting, planning and development assignments seems to be lacking in the proposed methods. Considering both theoretical and practical issues, we suggest a methodological approach, that supports restricted consulting and development efforts varying in size and scope that are conducted in organisations with varying organisational maturity. We suggest a practice-related approach with interfaces to the related areas: management ICT consulting and ICT governance and software development. Taking into account the method requirements elaborated in a previous study, we suggest an EA management and development Grid for managing EA descriptions, requirements, constraints, as well as project tasks and deliverables, task preliminaries and dependencies in EA consulting and development.

Jerzy Kisielnicki, Warsaw University, Poland

Communication in the Project Team (Hierarchical and Network Approach)

The following article discusses the problem of organizing project teams to create conditions conducive to the seamless flow of knowledge between project participants

and thus strengthen the team's synergy. The main hypothesis is "The network communication system provides the most effective framework for the management of the information technology (IT) projects".
A network communication system is a system where communication between all team members is direct and cross-divisional. In such a system, the key role of a leader is to build an effective communication framework in addition to developing mutual trust within the team. Theoretical analysis and research of twenty two IT projects concluded that network organizations have a significant advantage over hierarchical ones in the following areas: progress monitoring, cooperation and knowledge transfer, and problem resolution.

Bernhard Thalheim, Kiel University, Computer Science and Applied Mathematics Institute

The Co-Design Framework to Content Specification

Content and content management have become buzzwords. The notions are neither well-defined nor used in a standard way. Content objects are complex structured. Different users may require different content object sets. Content object sets may vary depending on the actual task portfolio, depending on the context of the user, and on the technical environment. Therefore, content management must combine generation, extraction and storage of complex object, must support complex workflows and must be adaptable to the actual use and users environment and requirements. Specification of content management systems, thus, combines specification of structuring, functionality and interactivity. Additionally, content management includes consistent usage of data from various resources. We propose in this paper an approach that integrates specification of structuring, functionality, distribution and delivery of content object suites. Delivery must be based on the way of usage. It is thus based on the specification of interactivity.

e-Learning

16:00 – 17:30, room 236 A
Session Chair: Eli Cohen

Guido Grohmann, German Research Centre for Artificial Intelligence (DFKI GmbH)

European Market Developments in Technology Enhanced Learning

This paper gives an overview about the current status of the European eLearning market as a whole and its participants. It discusses further market developments and provides and outlook on the major topics in terms of business aspects and organizational issues which have to be addressed in order to support the continuing integration of technology enhanced learning scenarios into corporate training. One approach to do so is displayed by introducing to PROLEARN, a network of excellence within the 6th framework programme of the European Commission.

Markus Grüne, Kirsten Keferstein, Kirsten Lenz, Andreas Oberweis, Marco von Mevius, Institute of Information Systems, University of Frankfurt/M., Gottfried Vossen, Institute of Information Systems, University of Münster

Individualization of E-Learning Processes by Workflow-Based Learning-Object Management

Current learning management systems often lack sufficient support for processes in e-learning, including teaching, learning, and administration processes. In this paper a new approach is presented for increasing the functionality of e-learning platforms by adding workflow-support. The use of a new variant of high-level Petri nets allows for an integrated description of complex learning objects and related processes. Advantages of workflow-based learning-object management can be seen especially for the individualization of processes and the measurement of results, e.g., economic benefits.

Aleksander Billewicz, Jerzy Gołuchowski, Krzysztof Kania, Ewa Ziemba , University of Economics, Katowice, Roisin Mullins , University of Wales Lampeter

On-line Intelligent Training System for Internet Marketing by SME's

The article focuses on the construction of the Internet e-marketing training system for SMEs. At the beginning key factors for making a decision to undertake work on the system are described. Advantages of the Internet marketing over the conventional marketing are also enumerated. Further on, the article presents the current state of knowledge of decision makers in small and medium sized enterprises (SMEs) in the field of possibilities the Internet offers for marketing activities, and their needs and expectations regarding the new marketing medium. Next, the focus is directed towards e-learning as a tool supporting decision makers in acquiring knowledge and skills in the field of e-marketing. Moreover, the idea of intelligent Internet-based training system facilitating implementation and maintenance of e-marketing in SMEs is outlined in the article. Particular attention is paid to the module of knowledge testing and assessing. Its programme assumptions and the way it functions are described. Finally, the article depicts a concept of utilisation of the model as a component of the system that allows for personalisation in the system of remote training.

Alf Benger, Liza Hoedt, Mathias Uslar, Department of Business Information Systems, Universität Oldenburg

Skill management in Virtual Organizations - building qualifications for the future

The employees' skills, whether they are social or professional are one of the most valuable resources within a company and furthermore of strategic importance for competition. But real knowledge about the employees' qualifications is very little. The resulting differences lead to miscasts and insufficient transfer of implicit knowledge. To efficiently use the qualifications and to support the strategic personnel development a broad range of Skill Management Systems have been created to allocate the resources more efficiently and to develop human resources more selective. At the same time the concept of Virtual Organizations that react quickly to changing market conditions is recognized as the organizational structure of the future. A new breed of Skill Management Systems is required to support these emerging organizational structures. This paper develops a decentralized approach for Skill Management systems. Every employee has the opportunity to put the skill description in different categories with different access rights from public to on request information and therefore remains the ownership of the provided personnel data. The proposed technical architectu-

re is based on a Peer-to-Peer Network. At the end of the paper a short discussion about the advantages of decentralized Skill Management Systems is provided.

Business Practices (BP-1)

16:00 – 17:30, room 301 A
Session Chair: Igor Hawryszkiewicz

Jacek Wieliński, Waldemar Wieczerzycki, The Poznan University of Economics, Department of Information Technology

A Model of Extended Track and Tracing Systems Based on Agent Technology and Mobile Services

Track and tracing systems become more and more popular, in particular in case of courier companies, offering very useful functions for their customers. However, they still do not provide sufficient real-time information concerning actual geographic localization of a shipment when it is actually moving. In the paper functionally enriched model of T&T systems is proposed which is based on new emerging technologies, like agent technology, mobile services and telemetric technology.

Costin Badica, Mike Roberts, Dumitru Burdescu, Stefan Udristoiu, Mihai Mocanu, Marius Brezovan, University of Craiova, Software Engineering Department, Gabriel Vladut, IPA SA CIFATT, Lois Carter, Huddersfield Textile Training

Content Standardization Efforts for B2B E-Commerce Interoperability in the Textile/Clothing Sector

The objective of the EUREKA SUM project (E! 2754) is to develop new e-commerce software and business practices to enable manufacturers to sell make-to-order products to the end customer without the need of a retailer. A research activity has been started two months ago to investigate the efforts that are active or have been done in the field of e-commerce content standardization with a focus on the application in the textile/clothing sector. This research has revealed the existence of a number of initiatives and projects at the European and international levels to standardize the exchange of data in the textile/clothing sector and we believe that they are of interest to a larger audience than the project consortium. The paper briefly summarizes these results and draws some conclusions regarding their implications on the further development of the SUM software.

Tadeusz Pankowski, Institute of Control and Information Engineering, Poznań University of Technology

Querying and transforming XML documents in e-commerce applications

We discuss some issues relevant to developing a new generation of e-commerce applications using Web services technologies supporting documents interchanges among business partners. Documents involved in business processes need to be converted from one form to another as they are exchanged among independently created applications. We address the problem of high-level specification of document transformations in such environment. We propose a method for transformation speci-

fication as well as algorithms for translating the specification into XSLT transformation rules. A system architecture with document transformation services is also discussed.

Theory and Applications of e-Negotiations 3 (TAEN-3)

17:35 – 19:05, room 213 A
Session Chairs: Willy Picard

P. Tsvetinov, School of Information Systems, Queensland University of Technology, Australia, L.Mikhailov, Computation Department, UMIST, United Kingdom
Reasoning Under Uncertainty during Pre-Negotiations Using a Fuzzy AHP
The paper proposes a new approach for tackling the uncertainty and imprecision of the reasoning process while using decision support tools during pre-negotiations. The pre-negotiation problem is regarded as decision making under uncertainty, based on multiple criteria of quantitative and qualitative nature, where the imprecise decision-maker's judgments are represented as fuzzy numbers. A new fuzzy modification of the Analytic Hierarchy Process is applied as an evaluation technique. The proposed fuzzy prioritization method uses fuzzy pairwise comparison judgments rather than exact numerical values of the comparison ratios and transforms the initial fuzzy prioritization problem into a non-linear program. Unlike the known fuzzy prio-ri-tization techniques, the proposed method derives crisp weights from consistent and inconsistent fuzzy compar-ison matrices, which eliminates the need of additional aggregation and ranking procedures. A detailed numer-ical example, illustrating the application of the approach to services evaluation is given.

Andreas Tanner, Intelligent Networks and Management of Distributed Systems, Faculty for Electrical Engineering and Computer Science, Technical University of Berlin, Germany
On the Mean Revenue of Combinatorial Exchanges under Variation of Clearing Policies
We present a new clearing policy suitable for combinato-rial exchanges with multiple autonomous bidders and sell-ers. We compare the revenue generated using this clearing policy with the revenue generated using periodic clearing.

General BIS 2 (GB - 2)

17:35 – 19:05, room 417 A
Session Chair: Grzegorz Bartoszewicz

Václav Řepa, University of Economics, Prague, Faculty of Informatics and Statistics, Department of Information Technologies
Business Processes and Objects in an Information System Development Methodology
The paper describes the role of processes and objects in the information system

development task. It explains the background base of the analysis stage of the ISD as well as basic principles behind it. Based on the Principle of Modeling two basic dimensions of the Real World Model are stated and basic consequences for IS development explained. Problem of the analysis model consistency is discussed in more detail and the formal specification of consistency rules is referenced.

Ahmed Hezzah, A Min Tjoa, Vienna University of technology, Institute of Software Technology

Temporal Multidimensional Modeling with OLAP for Business Applications

In the multidimensional model supported by OLAP data is represented in logical dimensions to provide a consistent view of business data over time. These dimensions, although representing static information, sometimes need to be updated or new entries need to be added. However, updates to the time dimension are different than updates to other slowly changing dimensions and therefore must be handled differently. This paper addresses the issues related to updating the time dimension showing how the common techniques for handling dimension updates can or cannot be used. It also gives examples for common structural and instance updates and presents an algorithm to perform them supported by the SQL code for its implementation. Finally, it resolves general issues related to dimension updates and addresses their effect on the time dimension. These issues seem to have wide application, and yet, more in-depth investigations need to be conducted in this field for real-world time-based analysis in enterprise-wide data warehouses

Igor Hawryszkiewycz, University of Technology, Sydney

Strategic Frameworks for integrating knowledge management into e-Business Planning

The paper provides a framework for identifying alternate strategies for web based business processes. It emphasizes alignment of technology to business and uses a design process to do so. The framework characterizes ebusiness processes into categories and provides a process for evaluating the benefits of the technologies to business processes.

Kevin Laframboise, John Molson School of Business-Concordia University, Department of Decision Sciences and M.I.S. GM 209

ERP, Quality Programs, and Influence over Suppliers: A Case Study from the Aerospace Manufacturing Industry in Canada

This exploratory study provides insights on how enterprise resource planning (ERP) may contribute to quality improvement in the supply chain. Quality and supplier control is especially important in an industry in which firms outsource a major proportion of the value of their product. We hypothesize that the degree of fit of ERP with the quality programs influences the performance of the value chain of the firm.

Business Practices 2 (BP-2)

17:35 – 19:05, room 301 A
Session Chair: Jaroslav Pokorný

Zubair A. Shaikh, Zafar Nasir, National University of Computer & Emerging Sciences, Asif Ijaz Sheikh, Millennium Software Pvt. Limited

A Framework for Acquisition of ERP Systems in SMEs for Developing Countries

Recently, external factors like requirement of automation for industrial units in order to achieve certain quality standards and certifications for competing in the ever-competitive market after the WTO implementation, have been stimulating companies of any size, to radically rethink their Information Systems. Acquisition of software products such as total ERP solutions have always been a very critical activity for Small and Medium Enterprises (SMEs), which eventually revolutionize the way these small enterprises work, particularly for developing nations keeping in view the country's economic strength. ERP acquisition and software implementation for SMEs have been a neglected area where not much research has been done.

Witold Chmielarz, Warsaw University, Poland

The Comparison and Analysis of e-Banking Services for Corporate Clients

The main idea of this paper is to analyse the use of e-banking services by small and medium enterprises in Poland in 2003. First, the market of e-banking services for small enterprises in Poland is described. Next, the e-banking offers of seven selected banks are compared. Finally, conclusions are drawn from this comparison.

Friday

Information Retrieval and Filtering (IRaF)

8:15 – 9:15, room 213 A
Session Chair: Bernhard Thalheim

Andrei Scherbina, Institute for System Programming, Russian Academy of Sciences

Application of Levenstein Metric to Web Usage Mining

Recently Internet gained certain social and economical influence. Since the analysis of user behavior allows for better personalization of Internet content, many researches in this field were held out. In this paper a method for clustering web log journals based on Levenstein metric is proposed. New methods aimed to increase clustering accuracy while using edit distance are presented (modifications of distance, normalization of data and coefficient varying).

Suzette K. Stoutenburg, The MITRE Corporation

Cross-Domain Interoperability Using Rule Markup Language

This presentation describes the results of an effort to apply Rule Markup Language technology to policy management across disparate inference domains. The approach is to develop policy rules in RuleML, and then translate those rules to multiple inference languages, such as Jess, using XSLT. The goal of the effort is to determine the power of RuleML in promoting interoperability across widely varying domains. We will discuss our approach for representing scenarios and the procedures we used for comparing the inferencing results. We will also share our conclusions on the applicability of RuleML as a rule abstraction language in the U.S. military domain.

Adam Niewiadomski, P. Kryger, P.S. Szczepaniak, Institute of Computer Sciences, Technical University of Lodz

Fuzzy Comparison of Strings in FAQ Answering

Current requirements for commercial Websites, software, user manuals, etc. point, among other properties, at the maximized user-friendliness. It is obviously impossible to assume that a potential user has detailed and/or technical knowledge to recognize all the aspects and keypoints of a product. Moreover, even a well-oriented user/customer would prefer products that are easy-to-use and equipped with the interface allowing attraction as little attention as possible to handle them. The listing called 'Frequently Asked Questions' (FAQ) with answers is only the partial solution. The number of FAQ's in present Websites, manuals and technical services implies the usage of intelligent and interactive software support, based on natural (or close to natural) and easily understood language. The following paper describes a method of handling FAQ's with fuzzy string similarity.

General BIS (GB-3)

8:15 – 9:15, room 301 A
Session Chair: Václav Řepa

N.A . Panayiotou, S.P. Gayalis, S.T. Ponis, National Technical University of Athens

A Structured Methodology and a Proposed Toolset for Reorganizing the Customer Service Process

This paper presents an enterprise modelling methodology used in business process reengineering of organizations. The proposed methodology analyses four different views: process, organisation, information and systems. These views are interrelated between each other and provide a spherical analysis of the system under research. The Process Chart is the main tool used, providing a hierarchical decomposition of a process to sub-processes and activities (process view). The organizational actors of the activities (divisions or departments) are included in the process chart, providing the organizational view. The information exchanged between the actors is represented as input or output of the analysed activities (information view). Both the manual and the automatic activities (those supported by existing Information Systems) are identified, as well as the software modules used for their operation and the corresponding authorization roles in the system (systems view). The application of the proposed methodology is demonstrated in a case study concerning the re-engineering of the customer service process of a Greek large company.

Kayo Iizuka, Kazuhiko Tsuda, Graduate School of Business Science, University of Tsukuba, Mitsuo Wada, Graduate School of Business Administration, Keio University

Customer Satisfaction Structure Analysis of System Integration - from the Perspective of Environmental Change

This paper presents customer satisfaction analysis result from 2 field surveys those are conducted at time distance of a decade. Analysis is focusing on structural change of satisfaction influenced by environmental change. Satisfaction structure is regarding various and important features of system integration business; technical factors, project management factors, difference of satisfaction structure between organizational sections (IT section, business planning section, and end user section), satisfaction about business impact.

Hakikur Rahman, Project Coordinator, SDNP Bangladesh (UNDP)

Role of ICT in creating e-Government for the disadvantaged communities

Information and Communications Technologies (ICTs) are playing an increasingly vital role in the daily lives of people by revolutionizing their working procedures and rules of business. In the realm of government, ICT applications are promising to enhance the delivery of public goods and services to common people not only by improving the process and management of government, but also by redefining the age-old traditional concepts. The world is witnessing dynamic changes in all spheres of life, business and governments. The ICT which is the catalytic agent of this millennium

offers magnitude of opportunities for a better world of tomorrow. Many countries have adhered to the wonders of the Internet technologies and have embraced diversified approaches for the advancement of their economies and betterment of their peoples' lives. The realizations of ICTs on societies are over ambitious, far-reaching and uneven. In one aspect, ICT is influencing the transition from industrial-based economies to knowledge-based societies, in the aspect, ICT still has little or no impact of ICT around the world today underscores the uneven progress of economic development. It also portrays constricted and critical role of government within the information society. To achieve the real success of e-governance within the information society, there need to clarify the major issues surrounding e-Government, as well as adopt best practices in e-governance in the developing world. Glimpse of hopes are there that global leaders committed to e-Government are demonstrating far reaching achievements by combining technology with new ways of management with which government can be made much more effective, efficient, transparent and responsive for the betterment of the society. Ideally the ICT tools offer an unprecedented opportunity for community to access information over any geographical distances and across any sovereign state borders. Opportunities for networking and knowledge sharing are also unlimited, regardless of its perseverance. Furthermore, ICTs position in governance systems and practices have becoming widely participatory and inclusive, with endless economic opportunities. At the milestone of the World Summit of Information Society (WSIS), time has come to look backward, take a good view, breath a while, and re-think on strategies, policies and planning on the developing countries acting locally, regionally and globally along this hopeful road to success and prosperity.

Student Session (SS-1)

8:15 – 9:15, room 236 A
Session Chair: Marek Kowalkiewicz

Julia Gwizdała, Monika Kaczmarek
The Poznan University of Economics, Poland
Introduction to Web Services
ServicesWeb Services are considered as the next big thing for 2004 and beyond. They allowapplications and Internet-enabled devices to easily communicate with one anotherand moreover to combine their functionality in order to provide services to each other,independent of platform or language. During this session we are going to answer afew question, namely:
– What are Web Services;
– Do we really need them;
– What is their potential?
The participants will be familiarized with the most important standards that are highly-connected with the idea of Web Services - WSDL, SOAP, UDDI, and so on. The life cycle of Web Services will be shortly discussed.

Agata Godlewska, The Poznan University of Economics, Poland
Ontology for Web Services

The aim of this paper is to describe a current situation in the Web Service ontology development. The introduction section provides information about current means of describing Web Services, such as WSDL and considers problems concerning this approach. Next, an ontology and the Semantic Web definitions are introduced, explaining advantages of ontological description of Services. The fourth section describes the idea of the Semantic Web Services, and in the fifth one current possibilities for adding semantics to Services are introduced. The most powerful ontology languages are described: Ontology Web Language(OWL) by w3.org and its DAML-S-based extension: OWL-S. Eventually, the sixth part deals with the 5th Framework Programme's of the European Commission approach to Semantic Web Enabled Web Services.

e-Government (eGOV-1)

11:15 – 12:45, room 301 A
Session Chair: Katarzyna Keller

Organizational audit and process analysis - gap reduction techniques for e-government project E-Gov does not mean putting scores of government forms on the Internet. It is about using technology to its fullest to provide services and information that is centered around citizen groups. Effective implementation of E-Government is important in making Government more responsive and cost-effective Central to e-government success and failure is the amount of change between 'where we are now' and 'where the e-government project wants to get us'. 'Where we are now' means the current realities of the situation. 'Where the e-government project wants to get us' means the model or conceptions and assumptions built into the project's design. eGovernment success and failure therefore depends on the size of gap that exists between 'current realities' and 'design of the e-government project'. Main goal of organizational audit is to identify and eliminate this gap.

Student Session (SS-2)

11:15 – 12:45, room 236 A
Session Chair: Dariusz Ceglarek

Jacek Kopcinski, Dominik Zyskowski, The Poznan University of Economics, Poland

How to become Web services provider - quick tutorial

Web services, in the general meaning of the term, are services offered by one application to the other applications via the World Wide Web. Clients of these services can aggregate them to form an end-user application, enable business transactions, or create new Web services. The Web services consumers are typically businesses, making Web services predominantly business-to-business (B2B) transactions. An enterprise can be both, Web services provider and consumer. For example, a wholesale distributor of spices could be in the consumer role when it uses a Web service to check on the availability of vanilla beans and in the provider role when it supplies the prospective customers with different vendors' prices for the vanilla beans. Enterprises

of the small business sector seldom take advantage of the Internet. We would like to show that it is possible to come into being in the Web with minimal cost and effort. Our tutorial will teach you how to create your own Web services to streamline your business. In this tutorial we are using Java technology and Microsoft Windows operating system. The reason for that is because it is extremely easy to create Web services in Java and because Microsoft Windows is the most popular operating system used in the Polish SMEs.

Michał Kowalczewski, The Poznan University of Economics, Poland
Universal Description, Discovery and Integration
he presention will focus on methods for searching and publicating information aboutweb-services in dedicated repositories, named UDDI. We will draw attention to the following aspects:
– Searching for services by users
– Publicating them by createtors/ providers.
This will be a practical tutorial, which will take adventage of the existing solution available fromthe web and drive us, step by step, to the end results. UDDI (Universal Description,Discovery and Integration) is a project developed by the biggest IT companies across the world,like Microsoft, IBM or Ariba. The UDDI is a directory that enables businessto list themselves on the Internet and discover each other. It's similar to the popular phonebook's yellow, green and white pages.

Wojciech Rutkowski, The Poznan University of Economics, Poland
Creating Web Service Clients and Servers in PHP
Web services are more and more popular interface for sharing application's functionality in computer networks. Thanks to standard languages, protocols (XML, WSDL) and the existing infrastructure, we can make the most of them regardless of the platform, allowing for the creation of the systems based on distributed architecture. It is impossible to reflect on the Internet application programming without taking into account the Open Source solution: the PHP scripting language, a widely-used scripting language that is especially suited for Web development, as for example dynamic generation of webpages, graphics or documents, all that with strong database support. Creating fully-functional web services using the PHP language is possible with available tools such as NuSOAP or the PEAR::SOAP extension. The most recent version of PHP (PHP5) has a brand new built-in SOAP extension for the Web services interoperability. This presentation describes and compares currently available tools for the Web service development in PHP. We will also evaluate these solutions with reference to the other contemporary programming environments such as Visual Studio .NET, Delphi, Java, which provide means to create Web services and their clients.

Language Technology for Business Applications (LTBA)

12:50 – 14:20, room 213 A
Session Chair: Vojtěch Svátek

Jan Daciuk, Department of Knowledge Engineering, Gdańsk University of Technology, Poland

Finite-State Lexical Tools
The paper presents three software packages containing finite-state lexical tools: two tool sets of standalone programs and support scripts - one using recognizers, and the other one using transducers, as well as a library of functions. All three packages offer similar functionality. Rather than describing the packages in details, the functions they provide are emphasized.

Marek Łabuzek, TECHLAND, Poland
A General Purpose Machine Translation System for The Polish Market
The article presents various aspects of constructing a commercial English-Polish machine translation system in the Polish market reality. Since the requirements of quick effects were laid on the project, various heuristic methods had to be employed, especially in parser construction. A combination of machine learning, standard statistical methods of tagging and hand-crafted rules produced quick effects, still leaving some possibility for constant quality increase.

Jakub Piskorski, DFKI GmbH, Germany
SProUT: An Integrated Set of Tools for Shallow Text Processing
This paper briefly presents SProUT - a novel platform for the development of multilingual shallow text processing systems, developed at the Language Technology Lab of the German Research Center for Artificial Intelligence. We focus on SProUTs' particularities concerning linguistic processing components, grammar formalism, and ongoing projects which deploy SProUT.

Wojciech Skut, Rhetorical Systems Ltd., Edinburgh, Scotland
Finite-State Text Processing in a Speech Synthesis System
This paper describes the architecture of the finite-state text processing components of rVoice, a text-to-speech (TTS) system developed by Rhetorical Systems. It focuses on the original motivation, the application areas of finite-state technology in TTS, typical theoretical and technical problems and the solutions found in the implementation.

e-Government (eGOV-2)

12:50 – 14:20, room 301 A
Session Chair: Piotr Mechliński

SAS Public Administration Intelligence Solution
SAS Public Administration Intelligence Solution (PAIS) is an integrated software system supporting strategic management of public administration.
SAS PAIS include a pre-defined data model that defines business entities and processes tailored to the public administration. In addition, integrated business intelligence applications, such as human capital management, communication campaign management and strategic performance management that offers sector-specific key performance indicators, allow to extend this ready-made framework easily to match changing needs and objectives.

The presentation will also include real-life case study of Advanced Strategic Management System for Governmental Administration implemented jointly by SAS Poland and Lubuski Voivodship Office. We will present the whole Strategy Map and the Scorecards Tree with 500 Key Performance Indicators, designed to meet public administration requirements and needs of a typical medium size European country. The presenters will also describe the sources of information providing data to the Scorecards and organizational adjustments which were needed to implement the system in the Office.

Student Session (SS-3)

12:50 – 14:20, room 236 A
Session Chair: Tomasz Kaczmarek

Jakub Kreczmer, The Poznan University of Economics, Poland
E-learning Systems and Web Services
The objective of my presentation is to introduce the possibilities of exploiting Web services technology for creating sophisticated e-learning systems at which all learning components are well defined, effectively discovered and loosely connected and the unmatched advantages provided by this solution. Due to the Web services unique capabilities they are an ideal component for supporting dynamic learning management systems. Thanks to the series of world-wide standards like UDDI (Universal Description Discovery and Integration), the Web Service Discovery Language (WSDL), the Simple Object Access Protocol (SOAP), the eXtended Markup Language (XML), and their unique qualities, the creation of systems which can be accessed from anywhere in the world, through any kind of electronic device (like a cell phone for example) is made possible. The presentation will be divided into a series of sections. The first section will comprise a general introduction to e-learning systems, a list of their basic components, the challenges lying before the creator of a successful e-learning platform. The second part will be a description a role of web services as means to arrange communication between server and client applications in an e-learning system. The third section will contain a characterization of a web service orientated framework for creating dynamic e-learning systems including the system's requirements and an exemplary framework. The rest of my speech will be a brief description of the systems functionality and the possibilities which are made available with an implementation of such a system.

Marek Bartuś, The Poznan University of Economics, Poland
eVEREst: The document library as the information store for the purposes of the real estates' assessment - web serices view
eVEREst (enhanced value estimation of real estates) is a project whose aim is to support the governmental process of evaluating the real estates with additional information retrieved from external sources.[1] This paper covers usage of web services technology in eVEREst.

Ontologies for BIS (OntoBIS)

15:15 – 16:45, room 213 A
Session Chair: Krzysztof Wecel

Vojtěch Svátek, Department of Information and Knowledge Engineering, University of Economics, Prague

Design Patterns for Semantic Web Ontologies: Motivation and Discussion

The relatively high level of standardisation of semantic web ontology languages is in contrast to mostly ad hoc designed content of ontologies themselves. An overview of existing methods supporting ontology content creation is presented. Methods based on design patterns are then discussed in more detail as they seem most promising particularly for business environment. Examples of elementary problems typical for semantic web ontologies are shown, and their pattern-based solution is outlined.

Muhammad F. Kaleem, Technical University Hamburg-Harburg

Towards Identifying Characterisitc Parameters of Web Services Compositions

With web services technologies becoming increasingly mature, there is substantial academic research and industrial focus on web services compositions, or composite services. Composite services represent aggregations of individual web services, or other composite services, and can effectively model complex business processes. In this paper we highlight important parameters that can be deemed characteristic of composite services, and discuss how these parameters relate to each other. We also describe a selection of aspects related to composite services, and explain their effect on the highlighted parameters.

Mikhail Simonov, Nomos Sistema S.p.A.

Ontology-driven Natural Language access to Legacy and Web services in the Insurance Domain

Ontology plays an important role in industrial systems by offering a natural language-based human access to Legacy resources in a transparent way. Since Ontologies are developed in order to provide a machine-processable semantics of information that is exchanged between different agents, both humans and software, the same mechanism can be used for Legacy Service discovery and for an automated reasoning about the semantic content of the answer obtained from such a system. We have created an Information system offering a web-based access in natural language to the distributed Legacy system in the Insurance Domain. The abovementioned solution offers a new, alternative communication channel, able to be transformed in a new model of business interaction between an end user and the service provider, an insurance company in our case. The full Knowledge Management Framework developed within the Eureka funded research project IKF has been adapted to be used in the Insurance Domain through the dedicated Domain Ontology named IES. The core system named MetaDiscoverer performs an ontology based filtering of user queries in order to discover the intended Legacy service. The whole technical solution is able to perform an

information retrieval, a knowledge extraction, an automated reasoning, a service location and dynamic invocation. The solution is RDF and XML-compliant according to recommendations given by the W3C Consortium.

e-Government (eGOV-3)

15:15 – 16:45, room 301 A
Session Chair: Herwig Heckl

Learning, training and employment attitudes are changing. Today 80 % of new jobs require post-secondary education and training. On average, each EU citizen will have 7 jobs in his lifetime. Education and training organizations are beginning to become more agile in delivering education and training to give employees the skills they need. The "Global Workforce" exists already today, in the sense that many companies manage training and human resources across international boundaries. The MOBICITI initiative promotes open service frameworks, IT platforms and knowledge portals for government service agencies, which want to collaborate in a given geographical area for providing employment-related guidance and counselling to citizens and enterprises. Such platform would be also beneficial for citizens who want to establish and follow-up their personalized skills development and employment plan including life-long learning and for enterprises with high-quality employment structures and long-term HR (Human Resources) strategies. The research focus in MOBICITI is on describing, providing, finding and sharing information and knowledge on skills and employment, and on activating this knowledge for the best-suited professional development of the individual citizen. This requires data-sharing arrangements and personal records protection, interoperability between legacy systems, XML-based standardisation of key registers (i.e. job profiles) and mutual access rights to back-office resources.

Panel sessions

Distance education

coordinated by Juergen Seitz

Panel Discussion on Thursday, April 22, 2004, 17:35, room 236 A

Distance Learning – Approaches, Tools and Experiences


Jürgen Seitz


Eli Cohen


Tino Jahnke


Eberhard Stickel


Andrzej Wodecki

Jürgen Seitz received his diploma in business administration and information science from the University of Cooperative Education Stuttgart, Germany, and in economics from the University of Stuttgart-Hohenheim. He received his Ph.D. from Viadrina European University, Frankfurt (Oder), Germany. He is professor for information science and finance, and chair of information science, especially eCommerce/eBusiness and mBusiness/Telematics, at the University of Cooperative Education Heidenheim, Germany.

Eli Cohen is Professor of Computer Information Science at the Kozminski School of Entrepreneurship and Management (Poland) and Director of the Informing Science Institute (USA). He is Editor-in-Chief of the Journal of IT Education and Managing Editor of Informing Science: The International Journal of an Emerging Transdiscipline.

Tino Jahnke received his bachelor and diploma in business administration and information science from the University of Cooperative Education Heidenheim, in Germany in 2001. He currently finishes his master thesis in Advanced Software Technology at the University of Applied Science Lueneburg, Germany, and the University of Wolverhampton, U. K. Furthermore he has developed the knowledgebay e-learning framework and manages his own software company.

Eberhard Stickel studied Mathematics and Business Mathematics at University of Ulm, Germany and Syracuse University, NY, USA. He is holding a Phd in Mathematics from Ulm University where he also wrote his habilitation. After some years in the consulting industry he returned to academics. He is holding a Chair in Information Systems, Finance and Banking at Viadrina University Frankfurt (Oder). Currenly he is on leave and serves as Founding President of Hochschule der Sparkassen-Finanzgruppe - University of Applied Sciences Bonn GmbH. This is a new private University founded and sponsored by Sparkassen-Finanzgruppe one of the largest and most succesful banking groups in Germany.

Dr Andrzej Wodecki is the director of the Polish Virtual University - the joint project of Maria Curie Sklodowska University in Lublin (UMCS) and Academy of Art and Humanities In Lodz (AHE). He is the co-organiser of the Polish Virtual University (PUV). He is also an MBA graduate (University of Central Lancashire, UK).
The research activities concentrate on e-learning methodology (both in academic and corporate sectors), e-learning quality control issues, knowledge management and implementations of Balanced Scorecard method in Human Resources Management. Apart from managing one of the biggest e-learning enterprises in Poland, his consultancy activities include issues regarding preparation of large companies to integrated systems implementation, the analyse of their business processes and internet strategy creation. He has experience in ERP implementation management and the methodology of such enterprises.
He gained experience on foreign markets and during international researches in Weizmann Institute of Science (Israel), Tuebingen University (Germany), University of California - Santa-Cruz (US), University of Helsinki (Finland), University of Ioannina (Greece).

How to Write the Successful Journal Papers?

Panel Discussion on Friday, April 23, 2004, 11:15, room 213 A

Moderator:
Wolfgang König, Goethe-University of Frankfurt am Main, Germany

Panelists:
Igor Hawryszkiewicz, University of Technology, Sydney
Leszek A. Maciaszek, Macquarie University, Australia
Jaroslav Pokorný, VSB Technical University, Czech Republic
Bernhard Thalheim, University Kiel, Germany

The panel will touch the strategies, techniques and approaches with regards to journal and conference papers. The participants will share their views and experience on the contents and attitude towards the research area that should give prominence to the potential paper. The title question of the panel is how the build process of the paper should look like and what it should encompass. The panelists share their opinion on internal side of the review process and careful spectators should derive constructive conclusions for their respective research.

Special session

Language Technology for Business Applications

Friday – April 23, 2004, 12:50, room 213 A

The aim of the special session "Language Technology for Business Applications" is to present Natural Language Processing (NLP) solutions aimed at business applications, as well as to expose NLP researchers and practitioners to the challenges encountered in the area of the deployment of language technology in real-world business applications.
We are pleased to have attracted in a short time 4 interesting submissions covering various NLP technologies. J. Daciuk presents a core finite-state toolkit which provides state-of-the-art and some new finite-state operations, which are highly relevant to lexical processing. W. Skut describes the architecture of the finite-state text processing toolbox deployed in a comercial text-to-speech system, and discusses some technical problems and solutions found in the implementation. J. Piskorski reports on the particularities of a novel platform for the development of multi-lingual shallow text processing systems, which have been utilized in several industrial projects. Finally, M. Labuzek discusses various aspects of designing and constructing a commercial English-Polish machine translation system for the Polish market.

Organizers:
Jakub Piskorski, German Research Center for Artificial Intelligence, Germany
Adam Przepiorkowski, Polish Academy of Sciences (Linguistic Engineering Group), Poland

Workshops

Theory and Applications of e-Negotiations

Thursday – April 22, 2004, room 213 A

The TAEN'04 workshop is an international forum for presentation of, and discussion about, theoretical and practical results in e-negotiations and related areas.

In the context of economy globalization, the use of information and communication technologies in negotiation processes increases. Software agents conduct some negotiations other systems mediate and support them. As economical actors are increasingly interconnected, and the amount of information exchanged between actors is rapidly increasing, data overflow threatens new economical models emerging from the use of e-negotiations. Tools enabling efficient negotiations in this highly concurrent environment are needed for multinational enterprises spread in many countries, and SMEs and public organizations, which are working in an increasingly international environment.

The workshop aims at bringing together researchers from different disciplines, developers, and users interested in the critical success factors of e-negotiations systems, and looking for new business and research cooperation opportunities. Papers presenting novel results concerning e-negotiations and exploratory presentations that examine open questions and raise fundamental concerns about existing theories are solicited.

Organizers:
General Chair
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Student Session

Web Services - What Are They? Just a New Hype or the Next Big Thing?

Friday – April 23, 2004, room 236 A

During this year student's session we will try to answer that question.
First the participants will be familiarized with the general idea of Web Services and then with more advance topic, namely ontology language for Web Services. The second part of the session will be quite practical. It will be shown how to become a Web Service provider and how to publish or find a Web Service. The open source solutions as a platform for building Web Services will be mentioned.
The future of Web Services will be discussed in the last part of our session. The usage in e-Learning and in the project called eVEREst will serve as an example. The whole session will end with an open discussion about the future of Web Services.

Tutorials

Outsourcing in Small and Medium Banks
Ruediger Weissbach
Hamburg University of Applied Sciences, Germany

Ruediger Weissbach, Ph.D., IS manager in a building society in Hamburg (Germany). After his MA graduation, he works since 1987 in IS departments in industry and financial services. In 2000/01 he supported the start up of a new small private bank as consultant and controller. As a sideline he works scientific and teaches since 1990 at the universities of Goettingen, Berlin and -at present - the Hamburg University of Applied Sciences.
He obtained his doctoral degree in information sciences in 2000 from the Freie Universität Berlin with a study about strategies of informatization and the diffusion of IT. He is a member of the German Gesellschaft fuer Informatik and the Information Resources Management Association in the USA.

Overview of the tutorial: Actually we notice a strong change in banking: The concept of the universal bank is abandoned. Especially for small banks it is necessary to specify their market position The self-image of popular banks changes to a sales organization.
Other processes are outsourced, like back office processes, transaction processes and IT services. But sometimes the outsourcing of information system (IS) services seems not to be an individually reasoned strategy but a risk avoiding reaction on general management strategies.
The objective of this tutorial is a more complex understanding of the tasks in IS outsourcing processes and their needs under the conditions of small and medium banks. The following items will be discussed:
– reasons for (and reasons against) outsourcing
– different kinds of outsourcing (in the phases of plan / build / run / support)
– criteria of decision and selection
– aspects on the contracts
– cooperation between the bank and the service provider
– change management during the contract's lifetime

e-Negotiations of Contracts
Willy Picard
The Poznań University of Economics, Poznań, Poland

Willy Picard received the M.Sc. and Ph.D. from the E.N.S.T Telecom-Paris, in 1998 and 2002, respectively. Since 1998 he has been with the Poznań University of Economics, working in

the Department of Information Technology, where he participated in several research projects, such as the ESPRIT project COSMOS, or the 5FP project PISTE. His research interests concern human negotiation support, analysis of multiversion datasets, negotiating agents, use of ontologies in negotiation processes, distributed and heterogeneous databases for e-commerce applications, and XML databases. He studied in details the case of mass e-negotiations in which the number of negotiators is high (>50) of complex contracts. He presented techniques for mass negotiations of multi-items, multi-attributes both qualitative and quantitative contracts.

This tutorial is focusing on collaborative approaches to e-negotiations of contracts. The aim of this tutorial is to introduce participants to the technologies associated with e-negotiations of contracts seen as collaborative processes, as well as provide a brief overview of key research issues in this new and fast growing area.

Architectural Design and Programming of Enterprise Information Systems

Leszek Maciaszek
Macquarie University, Australia

Architectural design is the set of decisions aiming at efficient and effective software architecture together with the rationale for these decisions. The rationale emphasized in this tutorial is the understandability, maintainability and scalability of enterprise database applications. This tutorial addresses two fundamental issues in integrated design of applications and databases:
(1) hierarchical layering of software modules that reduces complexity and makes module dependencies visible in program, and database structures, and
(2) design of the architectural layers responsible for all communication with database and web services.