

ANNUAL REPORT 2014



European
Research
Center for
Information
Systems



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THE ERCIS NETWORK



ERCIS – the **European Research Center for Information Systems** – is an international network of scientists conducting cooperative research in the field of Information Systems (IS). The Network was founded in 2004 at the University of Münster and is funded by the German State of North Rhine-Westphalia and the University of Münster.

The Network provides new ways of thinking and multi-disciplinary approaches for finding solutions to the problems arising from an ongoing transformation of society and organisations due to the growing impact of IT. ERCIS has dedicated itself to dealing with these challenges through collaboration and exchange of information between research and practice.

ERCIS is notable for excellent communication and uncomplicated initiation of research cooperation and research projects. Among ERCIS' major strengths are the personal contacts between researchers, which make it a vibrant network. ERCIS covers a wide range of disciplines associated with IS and perspectives on IS research.

The Network is headed by the Board of Directors in Münster, which is composed of one academic director, namely Prof. Dr. Jörg Becker, and eight additional professors all active in the IS research field. Moreover, ERCIS involves numerous internationally renowned researchers from more than 20 associated research institutions, as well as members of the Advisory Board coming from diverse industry companies.

All ERCIS research partners are experts in a wide variety of disciplines related to IS. Research conducted by ERCIS ranges from fundamental research to application-oriented research. Besides individual research activities of ERCIS members, the Network brings together and supports selected research aspects of IS in Competence Centres aimed at strengthening research in specific areas. The Advisory Board members come from various industry sectors, which guarantees that the research conducted at ERCIS is relevant for practice. Regular meetings of the Board of Directors with the Advisory Board members, as well as annual workshops of ERCIS' associated research institutions, ensure continuous, direct and productive exchange of knowledge.

Finally, students and young researchers also benefit from collaboration at ERCIS, as many ERCIS research partners offer exchange programs that last one or two semesters, which gives students an opportunity to acquire international experience. Joint lectures and guest talks organised by several ERCIS members contribute to the internationalisation of teaching.

If you are interested in connecting with the Network, please feel free to contact us! For further information please visit

www.ercis.org

PREFACE

› Preface Prof. Becker www.ercis.org

DEAR FELLOW ERCIS PARTNERS AND INTERESTED READERS OF THIS REPORT,

In 2014, we once again encountered a year with wonderful experiences in the ERCIS network that I would like to share with you in our ERCIS Annual Report. A lot has happened during the last 12 months – be it joint teaching, projects, research, Advisory Board meetings, new network members, or our great annual meeting. But read for yourself!

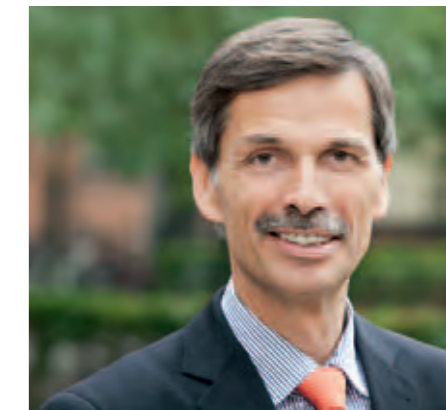
First of all, we had a very inspiring and perfectly organised ERCIS Annual Workshop in the beautiful city of Rome, where we enjoyed the late Italian summer. We discussed the future of Information Systems Education in Europe with researchers and lecturers from 13 different nations. Furthermore, the University of Minho in Portugal and the University of Kharkiv in Ukraine presented themselves in order to apply for ERCIS membership. We are happy to welcome them as probationary members for the coming year!

Prior to the ERCIS Annual Workshop, we organised our second ERCIS Doctoral Consortium in Rome. Eleven PhD students from various countries presented and discussed their research topics with Postdocs, senior researchers, and other PhD students from the network. After long and hard hours of work, the wonderful atmosphere of Roman nights surely contributed to the positive feedback that we received. The event was such a success that we will organise it regularly from now on.

In addition to the PhD seminar, we organised several courses for graduate and undergraduate students. During last year's ERCIS virtual seminar, the students successfully participated in the Hilti IT Innovation Competition. Currently, we are offering the ERCIS seminar for the fourth time in a row. Students from 11 nationalities evaluate how IS can contribute to the grand challenges facing humanity. In addition, the well-established BPM Winter School took place in Liechtenstein at the beginning of 2014, and preparations for a 2015 event are already going at full speed.

In 2014, we again met our Advisory Board members at the headquarters in Münster in order to discuss current topics such as technostress and the use of social software in companies from both a research and a practical point of view. I am very happy that we could welcome new Advisory Board members and interested guests.

A personal highlight for me was a trip to Luleå, Sweden, in the beginning of this year, when the Luleå University of Technology, which is Scandinavia's northernmost university of technology, joined the ERCIS network. We were very impressed, by the hospitality of our new member as well as by the weather that we experienced there: Can you imagine that they build a complete street on frozen water?



Completely opposite weather awaited us in Tel Aviv, with temperatures of around 30°. Various network members met for our traditional ERCIS@ECIS get-together, where we enjoyed informal talks, Israeli beer and the great Mediterranean coast. A second ERCIS meeting took place during ICIS in the beautiful city of Milan in December 2013.

I believe that this short recap shows that this year has already been impressive, but wait until next year: We are currently in the grant preparation phase for our first EU-funded Horizon 2020 project in the ERCIS network. And, last but not least, I am very happy and proud that ECIS 2015, which is Europe's most renowned IS conference, will take place in Münster, organised by ERCIS network members. As you can see, there is a lot that we can look forward to in the coming months.

All the best, Jörg Becker

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5TH ANNUAL ERCIS WORKSHOP

Following Vaduz (Liechtenstein) in 2010, Bordeaux (France) in 2011, Kaunas (Lithuania) in 2012, and Turku (Finland) in 2013, this year's ERCIS Annual Workshop took place in the ancient city of Rome (Italy). Paolo Spagnoletti, our ERCIS partner of the LUISS Guido Carli Business School, kindly hosted the Workshop together with Alessio Maria Braccini. In contrast to the previous ones, this Workshop started quite late in the year, September 10–12. In this way, we made the best use of the late Italian summer.

Following the traditional structure, the Workshop started with a welcome reception at Casina dei Pini for those who had already arrived Wednesday evening. With participants from Finland, France, Germany, Italy, Liechtenstein, Lithuania, the Netherlands, Norway, Portugal, Russia, Slovenia, Sweden, and Ukraine, more than half of the partner institutions were present. If you wonder why both Portugal and Ukraine were mentioned above: Following our rules regarding the incorporation of new partners, Isabel Ramos from the University of Minho and Iryna Zolotaryova from the Kharkiv National University of Econom-



Participants of the ERCIS Annual Workshop

ics presented their institutions to become probationary members for the coming year. We are happy to welcome them as such and hope that we will have an opportunity to invite them as full members soon.

Beside Isabel and Iryna, Martin Dugas from the Institute of Medical Informatics introduced his group and research topics, bringing in enough interfaces for further international collaboration. Martin and his team joined ERCIS last year.

As its main topic, the Workshop dealt with the Future of Information Systems Education in Europe on Thursday and Friday. Paolo introduced the much-debated problem of "digital skills shortage" in traditional and emerging professions to stimulate a discussion on the potential role of the ERCIS network in driving the design and implementation of innovative Information System curricula. He presented the case of Italy's Association for Information Systems Special Interest Group (ItAIS SIG), which contributes to such debate in Italy. The



Participants of the ERCIS Doctoral Colloquium

guiding question for this session was, can or should skills and capabilities as defined by, e.g., the European Commission, influence the Information System's curriculum, and if so, how?

With this in mind, the network could exploit the ERCIS potential by comparing job markets or educational systems throughout Europe.



Social Dinner during the Annual Workshop

Many ERCIS representatives have expressed interest in this topic by recognising the importance of assessing the diversity of job markets and educational systems. By collecting this information, an EU framework for IS education could be suggested. In the medium run, a joint project (e.g., ER-ASMUS+) could provide the resources for achieving these objectives.

Martin Dugas, presenting the case of Open Meta Data, motivated the second session. Starting with the difficulties inherent in Medical Meta Data (security issues, no standardisation, extremely complicated data exchange between different systems), and the problems with electronic health records and research documentation in general, he proposes semantic annotations to tackle the global interoperability crisis. For this, two steps are necessary: 1) Open Meta Data (transparency of Medical Data Models, free



access to Medical Data Models), and 2) Consolidation of Medical Data Models (discussion and consensus, sharing best practice, semantic annotation). As a first approach, Martin presented a prototype.

With this in mind, the participants split into several groups discussing guiding questions prepared by Martin about the Information Systems landscape in different domains, semantic interoperability, and possible difficulties with vocabularies, terminologies, and semantic annotations.

Andreja Pucihar and Mirjana Kljajić Borštnar concluded the content part of the Workshop by introducing the roots of the way the topic Internet of Things is being taught at the University of Maribor.

The workshop closed with a short trip to the city centre of Rome, leaving the weekend for the participants to explore the rest of the city.

SAVE THE DATE: The next Annual Workshop will take place in Minho (Portugal), August 24th–26th 2015.



ECIS 2015 IN MÜNSTER

The ERCIS headquarters in Münster is busy preparing everything for the upcoming ECIS 2015 in Münster. From the 26th till the 29th of May, Münster will be the European capital of the Information Systems Research Community. Many ERCIS partners are involved in the organisation in many different roles, and with 31 tracks to choose from, everyone should find an outlet for his or her research. With nice locations for the academic as well as the social program we all look forward to a great international IS conference!

www.ecis2015.eu



RISE_BPM

“Propelling Business Process Management by Research and Innovation Staff Exchange” (RISE_BPM) is the first favourably evaluated project proposal submitted by the University of Münster in cooperation with ERCIS partners within the Horizon 2020 EU funding programme. The RISE_BPM project is aimed at networking world-leading research institutions and corporate innovators to develop new horizons for Business Process Management (BPM). The project consortium, besides the University of Münster as the project coordinator, includes partners from Australia, South Korea, Brazil, Austria, Spain, the Netherlands, and Liechtenstein. RISE_BPM was set up to ensure the sustainability and further extension of the collaboration ties established during the Networked Service Society (NSS) project. It is planned that RISE_BPM will last for four years starting from May 2015.



2ND EDITION OF BPM HANDBOOK

The Best-Seller on Business Process Management, edited by Jan vom Brocke and Michael Rosemann has just been published in a second edition. With over 5.000 books sold and 60.000 single chapters downloaded the BPM handbook ranges among the top 25% most downloaded eBooks in the Springer eBook Collection. In the second edition, chapters have undergone substantive revisions, and new chapters have been added by world leading authors. A Portuguese Version has been published in 2013, and further translations are underway. For more information see www.bpm-handbook.com.



NEXT GENERATION OF ERCIS RESEARCHERS

We try to promote young and talented researchers. Thus, we are happy to welcome Elisa Braccini (from Rome) and Carla Knackstedt (from Hildesheim) as our youngest members in the network. It looks as though they both like ERCIS!



Prof. Dr. Fernando Buarque

PROF. DR. FERNANDO BUARQUE VISITS CHAIR FOR IS AND SCM AS POSTDOCTORAL ALEXANDER VON HUMBOLDT FELLOW

Starting April 1st, 2014, Prof. Dr. Fernando Buarque, Professor of Informatics and head of the Computational Intelligence Research Group of the Brazilian University of Pernambuco (UPE), joined the Chair group for Information Systems and Supply Chain Management as a visiting professor. His 18 month visit is funded by the Alexander von Humboldt Foundation within the highly competitive Humboldt Research scholarship programme.

In his work, Prof. Buarque focusses on computational intelligence (especially evolutionary and social meta-heuristics), modeling of stochastic and complex problems, and decision support systems (including computational semiotics). Being a long-term partner of the Chair, he currently actively collaborates in research in the context of meta-heuristics applications in SCM within the MetaSCP project.

PRACTICE-ORIENTED TEACHING WITH OUR ADVISORY BOARD MEMBERS

At the headquarters in Münster, students have to pass a so-called project seminar during their bachelor's and during their master's studies. For these seminars, the students have to work on a real-life project in teams of up to twelve people for one full semester. Their task is to understand a given problem, identify solutions, and implement them as prototypes. This year, several project seminar teams work on tasks given to them by our Advisory Board members. One team are working with zeb, developing a employee evaluation scheme. Another team is working with saracus on a data warehouse solution, and a third project seminar is working with Räckers on the selection of online shop systems.



BEST OF MOBILE AWARD 2014

The students project seminar team “Mobile Learning”, supervised by the Research Group of Communication and Collaboration Management won the “Best of Mobile Award 2014” with their m-learning application at the largest German mobile fair “M-Days” in Frankfurt. The mobile app offers students the opportunity to ask questions during class among the students visiting the same lecture. Moreover the app provides a “panic button”, the students can hit when they lost the thread.



ABOUT THE INSTITUTION

The Institute of Business-to-Business Marketing (IAS) is part of the ERCIS Headquarters located in Münster and represents the first senior professorship associated with the Marketing Center Münster (MCM).

Business-to-Business Marketing is traditionally the main research area of the IAS. In addition, the research program has continuously expanded to other interesting and current areas of research, such as the emergence of dominant designs in platform markets, the acceptance of share economy models or the usage of virtual realities in innovation processes. Parts of the research program are realised with the help of associates from research and industry. For example, the IAS has recently started to extend scenario analysis techniques in a research project together with the University Hospital Münster and the Institute of Public Auditors in Germany.

Beyond high-quality research, the IAS has always defined itself through outstanding educational efforts. We maintain close ties with partners from a variety of industries and academic institutions all over the world to offer our marketing students compelling lectures and extraordinary seminars.

Despite the senior professorship, the IAS still regularly offers a course on industrial marketing for master students in Münster. Additionally, professor Backhaus is responsible for the development of the curriculum for the Bachelor program in Business Administration for the Turkish-German University in Istanbul. The introductory year is over and the second cohort of students will join the program this winter. Professor Backhaus is offering a course on strategic marketing in collaboration with a Turkish professor.

RESEARCH TOPICS

Our research area ranges from traditional fields of industrial marketing, like analysis of organisational buying centre behaviour, via methodological research on applying multivariate analysis within scenario-building processes, to research on customer preferences concerning system architecture of sharing economy models. In addition to several journal publications, the results of this applied research have, inter alia, been documented in the following five definitive textbooks: “Industriegütermarketing”, “Strategisches Marketing”, “Multivariate Analysemethoden”, “Fortgeschrittene Multivariate Analysemethoden”, and “Vermarktung hybrider Leistungsbündel”. The high quality of diverse publications from the IAS has been highlighted by several awards, including the renowned Georg-Bergler-Preis 2008 and the Transferpreis 2010 from the University of Münster as well as a best paper award from the World Congress of Accountants 2014.

CURRENT RESEARCH PROJECTS

Current research at the IAS mainly consists of institutionally funded projects. In this way, the IAS collaborates closely with industrial companies and practice-oriented associations to generate knowledge with a direct impact for the industry.

Since 2012, the IAS has been part of the leading edge cluster “it’s OWL”. In collaboration with industrial companies, the IAS continuously expands its expertise in multivariate methodology by developing a statistical method that is able to test the

acceptance of complex technological innovations. The statistical method developed by the IAS is based on multiple Conjoint Analyses. In these Conjoint Analyses, the stimuli presentation is conducted within a virtual reality. Due to the advanced stimuli presentation, the potential customers surveyed exhibit an improved understanding of complex innovations, leading to better results than with conventional verbal stimuli presentation.

In 2014, the IAS has been working on a cooperative research project together with the Chair for Information Systems and Information Management in Münster, the Chair of Human Resource Management at the University of Duisburg-Essen, and supporting companies, which add valuable insights from their core activities (Stadtwerke Münster; TÜV Süd). The core focus of the project is to support the diffusion process of electric mobility by providing a solution for making private charging points available to the public. The basic idea originates in the sharing economy, and opens new possibilities for private people to share their charging points and to gain extra money by doing so, since they get paid for providing their charging points.

In another project, the IAS and the University hospital Münster as well as the Medical Faculty of the University of Münster are conducting a scenario analysis for anticipating alternative developments in the German health sector up to the year 2025. From the researcher’s perspective, common scenario analysis techniques are applied and developed further within this project. We use our expertise in multivariate methodology to provide a substantial contribution to the goals of the project and to research in the field of scenario techniques.

PUBLICATIONS

Monographs

Backhaus, K.: Hurdle Race Marketing: The Enlightenment – The Disillusionment – The Breakthrough

Dissertations

Bröker, O.: Full Service Contracts für industrielle Dienstleistungen – Qualitativ und quantitativ-empirische Analysen zur praxisnahen Beurteilung des Geschäftsmodells

Lügger, K.: Strategische und operative Vertriebsentscheidungen im Industriegütermarketing – ausgewählte konzeptionelle und empirische Befunde

Nikula, A.: Wahrgenommene Markenglobalität: Eine experimentelle Analyse isolierter und kontextgebundener Wirkungen

Rossinelli, C.: Methodische Gestaltungsparemeter zur Auswahl von Schlüsselfaktoren in Szenarioanalysen. Eine konzeptionelle und fallbeispielbasierte Untersuchung

Wiegand, N.: Platform Adoption in System Markets. Empirical Insights into the Drivers of Network Effects and Their Impact on Consumer Choice

Contributions to Anthologies

Backhaus, K., Koch, M., Mühlfeld, K., Witt, S.: Kundenbindung im Industriegütermarketing, in: Bruhn, M./Homburg, C. (Eds.): Handbuch Kundenbindungsmanagement, 8. Auflage.

Backhaus, K., Bröker, O., Brüne, P. A., Gausling, P.: Die Relevanz digitaler Medien in B-to-B-Transaktionen, in: Kliewe, T., Kesting, T. (Eds.): Moderne Konzepte des organisationalen Marketing.

Backhaus, K., Becker, J., Beverungen, D., Breuker, D., Bröker, O., Brüne, P. A., Dietrich, H.-A., Knacksted, R., Rauer, H. P., Reichle, F., Wilken, R.: Effizienzmessung industrieller Dienstleistungen mittels Data Envelopment Analysis – Projekt ServDEA, in: Möller, K., Schulze, W. (Eds.): Produktivität von Dienstleistungen.

Articles in International Journals

Backhaus, K., Belz, C., Lilien, G.: Trends im Industriegütermarketing: Fortschritte, Entwicklungen und zukünftiger Forschungsbedarf, in: Marketing Review St. Gallen.

Eisenbeiss, M., Cornelissen, M., Backhaus, K., Hoyer, W. D.: Nonlinear and asymmetric returns on customer satisfaction: do they vary across situations and consumers?, in: Journal of the Academy of Marketing Science.

Lügger, K., Geiger, I., Neun, H., Backhaus, K.: When East meets West at the bargaining table: adaption, behavior and outcomes in intra- and intercultural German-Chinese business negotiation, in: Journal of Business Economics.

Wiegand, N., Witt, S., Steiner, M., Backhaus, K.: Platform Adoption in Network Markets: Selecting Beneficial Partners to Achieve Market Dominance, in: International Journal of Innovation Management [Forthcoming].

Backhaus, K., Jasper, J., Westhoff, K., Gausemeier, J., Grafe, M., Stöcklein, J.: Virtual Reality based Conjoint Analysis for Early Customer Integration in Industrial Product Development. In: Disruptive Innovation in Manufacturing Engineering towards the 4th Industrial Revolution, The 8th International Conference on Digital Enterprise [Forthcoming].

Backhaus, K., Gausemeier, J., Stöcklein, J., Jasper, J., Westhoff, K., Grafe, M.: VR-basierte Conjoint-Analyse zur Frühzeitigen Ermittlung von Kundenpräferenzen. In: Digitales Engineering zum Planen, Testen und Betreiben technischer Systeme – im Rahmen der 17. IFF Wissenschaftstage in Magdeburg, Fraunhofer IFF [Forthcoming].

Steiner, M., Eggert, A., Ulaga, W., Backhaus, K. (2014): Do customized service packages impede value capture in industrial markets?, in: Journal of the Academy of Marketing Science.

Backhaus, K., Kirsch, H.-J., Rossinelli, C. (2014): Future Perspectives on the Auditing Profession – A Scenario Analysis, delivered at the Opening Session of the World Congress of Accountants 2014, November 10–13 (winner of Best Paper Award).



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KEY FACTS

INSTITUTION

- Founded in 1986
- 11 researchers

RESEARCH TOPICS

- Industrial marketing
- Customer preferences in sharing economy models
- Standardisation processes
- Scenario analysis
- Project finance
- Multivariate analysis



ABOUT THE INSTITUTION

The Chair for Information Systems and Information Management at the University of Münster, directed by Prof. Dr. Dr. h.c. Jörg Becker, Professor h.c. (NRU-HSE, Moscow), currently comprises 8 postdocs and 21 research assistants. The courses offered by the Chair for BSc and MSc programmes in Information Systems study include Application Systems, Information Modelling, and Workflow Management (Process Modelling field), as well as Data Management and Management Information Systems and Data Warehousing (Data Modeling field). Members of the Chair group are involved in research projects funded nationally and internationally. They publish the results of their work in journals like BISE (Business & Information Systems Engineering), BPMJ (Business Process Management Journal), Electronic Markets, EMISA (Enterprise Modelling and Information Systems Architectures), ISeB (Information Systems and e-Business Management), GIQ (Government Information Quarterly), and SJIS (Scandinavian Journal of Information Systems), as well as in conference proceedings like ECIS (European Conference on Information Systems), ER (International Conference on Conceptual Modeling), HICSS (Hawaii International Conference on System Sciences), and ICIS (International Conference on Information Systems).

RESEARCH TOPICS

Conceptual modelling has become a mainstream method for describing, designing, and reorganising Information Systems in the last decade. Many large companies use conceptual models for such common tasks as business process reengineering, software introduction, and compliance management. Conceptual Modelling, when transferred into practice, supports creation of business value for companies and governmental organisations.

Retail is another area of research interest in the Chair group, which is focused on organisations and application systems in domains including wholesale, stationary retail and e-commerce. Focal topics to account for interdependencies between an organisation and an application system involve process management and conceptual modelling in retail, as well as Enterprise Resource Planning (ERP) systems.

E-Government deals with aspects of administrative processes and services across governmental and inter-governmental organisations and citizens and businesses through the use of Information and Communication Technology (ICT). E-Government links the field of strategic management with aspects of process management and economic viability and focuses on front- and back-office.

E-Government topics can be addressed in terms of content, as well as from technical and conceptual perspectives.

Service Science research addresses such aspect as servitisation – the integration of industrial machinery with customised service offerings without selling physical goods. Our research is focussed on understanding and facilitating the creation of value in service systems, which involves interactions between service providers and service customers. The goals of the Service Science team at the Chair group are to develop a sound theory of service phenomena and to design innovative IT artifacts supporting the competitive edge of the service economy.

SELECTED CURRENT RESEARCH PROJECTS



End-Of-Life Solutions for eCar-Batteries – Development of Product-Service-Systems and Information Systems for Decision Support (EOL-IS): An immature battery technology appears to be the crucial obstacle impeding a quick diffusion of electric mobility in Germany. One core factor is the high initial cost of electric car batteries, which make electric vehicles about three times as expensive as vehicles propelled with a compression ignition (CI) engine. To improve the total cost of ownership (TCO) of a battery and an electric vehicle, depleted batteries could be reused after their first life-cycle. The EOL-IS project's goal is the development of services for the phase after the batteries' EOL. A further objective is to find the best Second-Life concept for each battery as well as to conduct the application concept with accurately fitting hybrid bundles of services (HLB). For further information please visit <http://www.eol-is.de>



Cooperation Experience: Today, successful innovations in business models increasingly take place in the form of product service system (PSS) networks that combine the skills and performance contributions of different partners of the value chain or new and innovative customer solutions. The project's main goal lies in the search for an innovative conception method that supports the demand-driven coordination of product and service providers within a product service system network. This method will be characterised by its capacity to visualise the planning of back-office integration in PSS networks and by its suitability for allowing the most direct experience of the network as part of a software-based test environment. Application domains are the planning and operating of facilities and mechanical engineering. Overall, the development efforts resort to the basics of modelling in the Information Systems discipline and the approaches of model driven development and configurative reference modelling.

For further information please visit: <http://www.cooperation-experience.de>

SELECTED AWARDS

Friedrich Chasin, PhD candidate in the Chair group of Jörg Becker, won the Green Hackathon 2014 in Stockholm. <http://ict4s.greenhackathon.com/>

Best Paper Nominee: *Breuker, D. (2014).* Towards Model-Driven Engineering for Big Data Analytics – An Exploratory Analysis of Domain-Specific Languages for Machine Learning. In Proceedings of the 47th Hawaii International Conference on System Sciences (HICSS-47), Waikoloa, Big Island, USA.

SELECTED PUBLICATIONS

Please see <https://www.wi.uni-muenster.de/departments/groups/is/publications> for a complete list of publications.

Becker, J., Beverungen, D., Knackstedt, R., Rauer, H. P., Sigge, D. (2014). On the Ontological Expressiveness of Conceptual Modeling Grammars for Service Productivity Management. Information Systems and e-Business Management, 12(3), 337–365.

Becker, J., Delfmann, P., Dietrich, H.-A., Steinhorst, M., Eggert, M. (2014). Business Process Compliance Checking – Applying and Evaluating a Generic Pattern Matching Approach for Conceptual Models in the Financial Sector. Information Systems Frontiers [Forthcoming].

DISSERTATIONS/HABILITATIONS

Beverungen, D.: Interaction Routines in Service Systems: Analysis, Design, Emergence. Habilitation.

Dietrich, H.-A.: Graph-based Conceptual Model Analysis – Design, Implementation, Demonstration and Evaluation of Model Query Languages

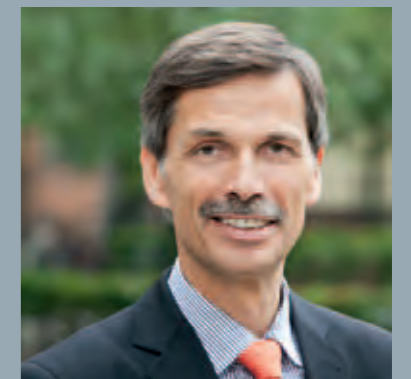
Groß, S.: Ein konfiguratives Vorgehensmodell für die Einführung von ERP-Systemen

Heddier, M.: Interdisziplinäre Kommunikation und Visualisierung von Recht – Forschungsagenda, empirische Forschungsergebnisse und methodische Unterstützung durch Konzepte der Wirtschaftsinformatik

Malsbender, A.: Utilizing Enterprise Social Networks for Service Innovation – Theoretical Foundations and Recommendations for Action

Rauer, H.-P.: Supporting Service Productivity Management – Conceptualizing and Designing an IT Artifact for Managing Service Productivity with Data Envelopment Analysis (DEA)

Steinhorst, M.: The Generic Model Query Language GMQL



CONTACT DETAILS

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KEY FACTS

INSTITUTION

- 8 postdocs
- 21 research assistants
- 30 student assistants

RESEARCH TOPICS

- Process management
- Conceptual modelling
- Retail
- E-Government
- Service science
- Business intelligence



ABOUT THE GROUP

In a world where computer networks form a vital backbone of wealth and growth, a sound understanding of the principles of security and privacy is no longer the sole domain of spies and specialists. Instead, knowledge of information security belongs to the set of indispensable skills for every businessperson and citizen – just as in the offline world everyone knows how to operate door locks, or not to issue blank checks. The IT Security Research Group in the Department of Information Systems is known for its interdisciplinary approach to solving a range of research questions in information security and privacy. Members of the group are particularly interested in the economics of information security and privacy, multimedia security, cybercrime, digital forensics, privacy-enhancing technologies, and usable security. Rainer Böhme, Assistant Professor at WWU Münster since September 2010, heads the group.

RESEARCH PROJECTS

Two new research projects started in spring 2014. **VeriMetrix**, funded by the German BMBF, looks at new ways of establishing privacy metrics in cloud environments. The project envisions a world where cloud providers compete on price and quality, including privacy standards, and potential customers can make informed decisions based on the metric developed by the project team. **E-CRIME**, a European project funded in the 7th Framework Program, analyses the economic impacts of cybercrime on non-ICT sectors. Researchers at WWU Münster closely collaborate with TU Delft to collect data and calibrate economic models that may explain consumer as well as industry behaviour. A third project on virtual currencies is about to start towards the very end of the year.



CONFERENCE ORGANISATION

Rainer Böhme and Tyler Moore, Assistant Professor at SMU in Texas, organised the first workshop on Bitcoin research on March 7, 2014, in association with the 18th International Conference on Financial Cryptography and Data Security. Bitcoin is an innovative way of establishing money on the internet, which raises many technical as well as legal and policy research questions. The new interdisciplinary workshop attracted about 100 participants, including multiple board members of the Bitcoin Foundation, and ACM Turing Award winners – the closest approximation to a Nobel prize in computer science – among the authors of accepted papers. The second workshop will take place in January 2015 with Nicolas Christin (Carnegie Mellon) and Emin Gün Sirer (Cornell) in charge. Rainer Böhme is proud to serve as programme co-chair of the 2015 edition of the main conference.

Rainer Böhme also served as general chair of the International Conference on IT Security Incident Management & IT Forensics (IMF) 2014. The conference invited experts from industry, academia, law enforcement, and other government bodies to Münster for the first time to discuss new directions in IT security and forensic research and development. The conference was held on May 12–14, 2014 under the auspices of the German Informatics Society (GI e.V.) and in cooperation with the European Network and Information Security Agency (ENISA).

APPOINTMENT

Dr. Matthias Kirchner joined the faculty of the State University of New York at Binghamton, USA, in fall 2014. He took up a position as tenure-track Assistant Professor in the Electrical and Computer Engineering (ECE) Department. As a distinguished expert in multimedia security, he further strengthens the leading institution in this field of research. Congratulations, Matthias!

DISSERTATION



Pascal Schöttle, Research Assistant in the security group since 2011, successfully defended his PhD thesis entitled “The Role of Side Information in Steganography”. He proposed a novel framework to tackle unsolved research questions in data hiding with game theory. Congratulations, Pascal!



WHO “LIKES” OUR RESEARCH

Stefan Korff, a 2014 graduate of the University of Münster’s MScIS program and Research Assistant in the security group, addressed an international audience of almost 300 researchers at the Symposium On Usable Privacy and Security (SOUPS), hosted by Facebook Inc. in Menlo Park, California. Stefan reported new findings on how to design user interfaces for privacy settings. The results of his human subjects experiment carried out in Münster connect two previously unrelated research fields: choice proliferation in consumer psychology and the behavioural aspects of privacy.

PUBLICATIONS (SELECTION)

Böhme, R., Brenner, M., Moore, T., Smith, M. (eds., 2014): Financial Cryptography and Data Security – FC 2014 Workshops, BITCOIN and WAHC 2014, Lecture Notes in Computer Science 8438, Springer, Berlin Heidelberg, 249 p.

Böhme, R., Christin, N., Edelman, B., Moore, T. (2014): Bitcoin. Harvard Business School NOM Unit Working Paper No. 15-015. <http://ssrn.com/abstract=2495572>



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KEY FACTS

INSTITUTION

- Launched in fall 2010
- 1 professor
- 1 postdoc
- 4 PhD students
- 5 research assistants

RESEARCH TOPICS

- Economics of information security
- Digital forensics
- Cybercrime
- Steganography and steganalysis
- Privacy-enhancing technologies
- Economics of privacy
- Security and Usability



ABOUT THE INSTITUTION

The Institute of Medical Informatics (IMI) is dedicated to research and teaching for the full range of informatics applications in medicine. It was founded in 1973 and belongs to the Medical Faculty. Since 2009 it has been headed by Martin Dugas. It provides lectures, seminars and courses in small groups regarding Medical Informatics for medical as well as informatics students. The institute has a long tradition regarding research on information systems in healthcare. The Systematized Nomenclature of Human and Veterinary Medicine (SNOMED), which is now used world-wide in medical information systems, was initiated in Münster more than 30 years ago. Nowadays, the future of information systems in healthcare, specifically for electronic health records (EHRs), is a key research focus. Personalised medicine is built upon clinical and molecular data. Therefore data mining and pattern recognition techniques for genomic data, in particular derived from next-generation sequencing of cancer tissue, is an important research focus.

RESEARCH TOPICS

IMI focuses on informatics for personalised medicine. The relevance of informatics within all fields of medicine is constantly rising. There is a wide scope of applications, ranging from molecular biology through clinical medicine to public health.

The integration of clinical and molecular data, especially the analysis of next-generation sequencing (NGS) in cancer research, is a well-established focus of the institute, with national and international cooperations for many years. The rapid increase in data volumes of high-throughput sequencing in molecular medicine poses constant challenges from an informatics point of view. Whereas a gene expression chip provided 10,000 data points per patient a few years ago, this number has increased to multiple million sequence-reads per patient with modern techniques today.

A major proportion of the data needed for clinical studies is also relevant for routine patient care. Currently, the documentation for studies and patient care are managed in separate systems, which results in redundant data input. Hence, design and efficient implementation of interoperable information systems in healthcare is a key research topic. Specific research topics are data models with semantic annotations and methods for metadata management. Application fields are electronic health record (EHR) and electronic data capture (EDC) systems.

CURRENT RESEARCH PROJECTS

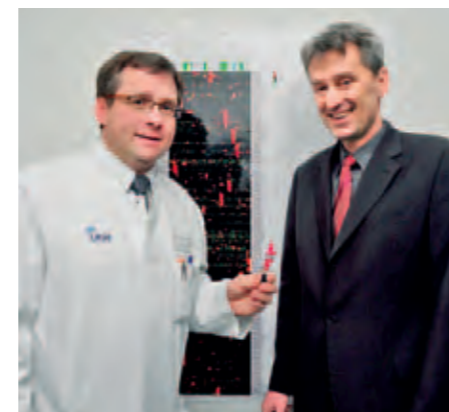
Health Informatics

The world's largest portal of public medical data models (<http://www.medical-data-models.org>) was established by IMI. It contains more than 5,300 forms and

175,000 data elements with semantic codes. IMI is coordinating the pilots for the European project Electronic Health Records for Clinical Research (<http://www.ehr4cr.eu>). EHR4CR is a large-scale initiative with 10 major pharmaceutical companies and 11 university hospitals in 5 countries. The IMI project Mobile Patient Questionnaires (<http://mopat.uni-muenster.de>) integrates EHR and patient reported outcomes.

Biomedical Informatics

A project for improved diagnostics of tumour diseases with new DNA sequencing methods and algorithms (funded by the German Cancer Aid foundation) was started. It is a collaborative project with Prof. Carsten Müller-Tidow. Both genomic and epigenomic data will be analysed.



DKH project for improved leukemia diagnostics based on genome sequencing. Carsten Müller-Tidow (left), Martin Dugas (right)

Recently a European project with Prof. Joop Jansen of the Nijmegen Centre for Molecular Life Sciences (NCMLS) was started to analyse mutations in Myelodysplastic Syndrome (MDS). Working with project partners from the Netherlands, France and Austria, approximately 1,000 cases will be analysed with Next-Generation Sequencing (NGS) technology. About one third of MDS patients develop leukemia – the objective of the project is to improve diagnostics and therapy using biomarkers from NGS.



EU project team for mutation analysis in MDS. From left to right: Joop Jansen (NCMLS), Aniek de Graaf (NCMLS), Martin Dugas (WWU), Sarah Sandmann (WWU), Bert van der Reijden (NCMLS), Carolin Walter (WWU), Christoph Bartenhagen (WWU)

PUBLICATIONS

Klein, HU., Schäfer, M., Porse, BT., Hasemann, MS., Ickstadt, K., Dugas, M.: Integrative analysis of histone ChIP-seq and transcription data using Bayesian mixture models. *Bioinformatics* 2014; 30: 1154–1162

Walter C, Schuetzmann D, Rosenbauer F, Dugas M. Basic4Cseq: an R/Bioconductor package for analyzing 4C-seq data. *Bioinformatics* 2014 Jul 30. pii: btu497. PMID: 25078398

Haferlach, T., Nagata, Y., Grossmann, V., Okuno, Y., Bacher, U., Nagae, G., Schnittger, S., Sanada, M., Kon, A., Alpermann, T., Yoshida, K., Roller, A., Nadarajah, N., Shirai-shi, Y., Shiozawa, Y., Chiba, K., Tanaka, H., Koeffler, HP., Klein, HU., Dugas, M., Aburatani, H., Kohlmann, A., Miyano, S., Haferlach, C., Kern, W., Ogawa, S.: Landscape of genetic lesions in 944 patients with myelodysplastic syndromes. *Leukemia* 2014; 28(2):241-7

Hascher, A., Haase, AK., Hebestreit, K., Rohde, C., Klein, HU., Rius, M., Jungen, D., Witten, A., Stoll, M., Schulze, I., Ogawa, S., Wiewrodt, R., Tickenbrock, L., Berdel, WE., Dugas, M., Thoennissen, NH., Müller-Tidow, C.: DNA methyltransferase inhibition reverses epigenetically embedded phenotypes in lung cancer preferentially affecting polycomb target genes. *Clin Cancer Res.* 2014;20(4):814-26

Binder, V., Bartenhagen, C., Okpanyi, V., Gombert, M., Moehlendick, B., Behrens, B., Klein, HU., Rieder, H., Krell, PF., Dugas, M., Stoecklein, NH., Borkhardt, A.: A new Workflow for Whole Genome Sequencing of Single Human Cells. *Hum Mutat.* 2014 Jul 27. PMID: 25066732

Varghese, J., Dugas, M.: Most Frequent Medical Concepts in Clinical Trial Eligibility Criteria and their Coverage in MeSH and SNOMED-CT. *Methods of Information in Medicine, PrePrint Online* 2014-10-27. <http://dx.doi.org/10.3414/ME14-01-0046>

Bruland, P., Forster, C., Breil, B., Ständer, S., Dugas, M., Fritz, F.: Does single-source create an added value? Evaluating the impact of introducing x4T into the clinical routine on workflow modifications, data quality and cost-benefit. *Int J Med Inform.* 2014 Aug 29. doi: 10.1016/j.ijmedinf.2014.08.007. PMID: 25220487

Trinczek, B., Köpcke, F., Leusch, T., Majeed, RW., Schreiwies, B., Wenk, J., Bergh, B., Ohmann, C., Röhrig, R., Prokosch, HU., Dugas, M.: Design and multicentric Implementation of a generic Software Architecture for Patient Recruitment Systems reusing existing HIS tools and Routine Patient Data. *Applied Clinical Informatics* 2014;5(1): 264-83

Doods, J., Bache, R., McGilchrist, M., Daniel, C., Dugas, M., Fritz, F.: Piloting the EHR4CR feasibility platform across Europe. *Methods of Information in Medicine* 2014;53: 264–268

Krumm, R., Semjonow, A., Tio, J., Duhme, H., Bürkle, T., Haier, J., Dugas, M., Breil, B.: The Need for Harmonized Structured Documentation and Chances of Secondary Use – Results of a Systematic Analysis with Automated Form Comparison for Prostate and Breast Cancer. *J Biomed Inform* 2014; 51:86–99



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KEY FACTS

INSTITUTION

- Founded in 1973
- Institute of the Medical Faculty

RESEARCH TOPICS

- Health informatics
 - Medical data models
 - Electronic health records
 - Electronic data capture
 - Mobile documentation
- Biomedical informatics
 - Personalised medicine
 - Next generation sequencing
 - Clinical translation



ABOUT THE INSTITUTION

Today's supply chains (SCs) have to cope with growing uncertainties and complexity, e.g. from increasingly volatile customer demand, natural or human threats, or through an increasing number of actors in the value adding process. Tackling these issues is the major objective of the Chair for Information Systems (IS) and Supply Chain Management (SCM), directed by Prof. Dr.-Ing. Bernd Hellingrath. In particular, the Chair group develops application-oriented research contributions in the areas of SCM, logistics and operations management with regard to support from IS. Special focus lies in the development of modelling and planning methods, handling and incorporating large amounts of information collected by technologies like cyber-physical systems (CPS) effectively. In this way, the Chair group is actively investigating how new technology trends like Big Data or CPS can be used to improve SCM activities. In this context, research is fostered by a culture of internationalisation, exemplified by the growing number of international research partners and projects.

RESEARCH TOPICS

Meta-Heuristics for Supply Chain Planning: The complexity of SCM planning tasks constantly increases, often rendering established methods unable to create applicable plans in suitable timeframes. Therefore, our research assesses the applicability of meta-heuristics in SCP, develops these methods further and evaluates their effectiveness in comparison to established methods.

Decentralised Supply Chain Planning: The coordination of SC actors is a challenging task – especially for heterarchical SCs which

feature legally independent companies that are still highly inter-dependent in their actions. Within this topic, the Chair group concentrates on assessing and evaluating solutions of collaborative planning.

Supply Chain Flexibility: Flexibility in SC serves as a means to cope with uncertainty. Our research focusses on the questions how a flexible SC can be designed to adapt to changes, how a good balance between flexibility measures and flexibility costs can be determined, and how an efficient combination of flexibility measures can be selected.

Spare Parts Management: In order to preemptively identify potential breakdowns of technical systems, thereby increasing the availability of parts at the place of repair, the Chair group's research focusses on integrated as well as decentralised planning by means of modelling spare parts supply chain processes. Moreover, the Chair group develops improved forecasting methods for spare parts demand, incorporating condition monitoring data collected from monitored systems.

Supply Chain Security: Threatened by theft, smuggling, and other criminal activities, SCs need to be protected to ensure the global flow of goods and to maintain civil security. Our Chair focusses on the design and analysis of security relevant processes by means of business process management and enterprise architecture management.

Humanitarian Logistics: Responding to disasters effectively is a cornerstone of humanitarian logistics. In order to enable humanitarian organisations to improve their logistics performance, the Chair group

conducts research on modelling and measurement of humanitarian logistics, on the application of methods and tools for information gathering for infrastructure assessments after disaster occurrence, and on the development and evaluation of software for humanitarian logistics.

Impacts of Industry 4.0 on SCs: In order to stay competitive, SC partners are constantly looking at new technologies to improve SC activities. The Chair group's research focusses on the evaluation of the impact new technologies like Big Data, CPS or cloud computing have on SCM. A developed methodology enables the analysis of this impact using models and methods from enterprise architecture management.

RESEARCH PROJECTS

The Chair group's research is organised in a variety of research projects, closely aligned with its research topics.

Within the European Commission-funded demonstration project "Driving Innovation in Crisis Management for European Resilience" (DRIVER), the Chair group contributes through the application of a reference task model and a performance measurement for humanitarian logistics to the sub-project focussing on professional response in crisis management.

Together with Prof. Dr. Stefan Klein, the Chair group is part of the Marie Curie Initial Training Network dedicated to the international Graduate School "Networks, Information, Technology and Innovation Management" (NITIM). The Chair group supervises two PhD projects focussing on in the domain of humanitarian logistics (EC FP7, <http://www.nitim.org/>).

InPoSec (Integrated Postal Security) is a joint Franco-German project that aims at strengthening security in postal SCs. The project's results will be demonstrated in April 2015 (BMBF; Deutsche Post, La Poste, University of Bordeaux, WWU Faculty of Law). In addition, the Chair group is actively collaborating in four joint Brazilian-German projects.

Within **MetaSCP** (Application and Extension of Meta-Heuristics for Supply Chain Planning), innovative optimisation algo-

rithms for complex planning tasks in the context of SCM are evaluated and improved (DAAD PROBRAL, 2012–2014; UPE Penambuco, UFC Ceará).

CI SC Epidemics, also set in the context of meta-heuristics research, aims to apply computational intelligence algorithms to enhance today's capabilities for solving supply chain planning tasks and predicting the spread of epidemic diseases (BMBF 2013–2016; UPE Penambuco).

MatuFlex (Development of a Maturity Measurement Framework for Supply Chain Flexibility) targets the development of a maturity measurement framework for SCF (DAAD PROBRAL 2013–2014; UFSCar Sao Carlos, PUC Rio de Janeiro).

I2MS2C (Integrating Intelligent Maintenance Systems and Spare Parts Supply Chains) is related to the Chair group's research on spare parts management incorporating condition monitoring information (DFG 2012–2016; UFSC Florianópolis, UFRGS Porto Alegre, FURG Rio Grande).

EVENTS

BVL's International "Day of Logistics": On 10th April, Münster and its universities contributed to the Germany-wide event series with a dedicated program on humanitarian logistics. Besides the organisation of a field exercise in cooperation with the University of Tilburg and a lecture in the historical Town Hall, Prof. Hellingrath moderated a panel discussion with representatives from the Commissioner for Human Rights Policy of the German Federal Foreign Office, the German Red Cross, Humedica e. V. and the German Technical Relief Agency.

Also mirroring the interest in humanitarian logistics, together with Prof. Marc Haselkorn and Robin Mays from the University of Washington the Chair co-organised the track "Practitioner Cases and Practitioner-Centered Research" at the 11th International Conference on Information Systems for Crisis Response and Management at Penn State University, USA.

INDIN 2014: Prof. Hellingrath and Prof. Pereira (UFRGS Porto Alegre) jointly chaired

the "Special Session on Advances in Spare Parts Management" at the 12th IEEE International Conference on Industrial Informatics in Porto Alegre, Brazil. The session covered recent improvements in spare parts supply chain planning.

PUBLICATIONS

Böhle, C., Hellingrath, B., Cordes, A., Höhenberger, S. (2014). Towards a Common Reference Architecture for the Multidisciplinary Subject of Cyber-Physical Systems. *Multikonferenz Wirtschaftsinformatik, Paderborn.*

Hellingrath, B., Böhle, C., Vanauer, M., Könnig, M. (2014). The Impact of Big Data on Logistics and Supply Chain Management. *7th International Scientific Symposium on Logistics, Cologne.*

Hellingrath, B., Cordes, A. (2014). Conceptual Approach for Integrating Condition Monitoring Information and Spare Parts Forecasting Methods. *Production and Manufacturing Research: An Open Access Journal. Vol. 2, No. 1, pp. 725–737.*

Hellingrath, B., Link, D., Widera, A. (Eds.) (2013). *Managing Humanitarian Supply Chains: Strategies, Practices and Research (1st ed.).*

Horita, F., Port, d. A. J., Hellingrath, B. (2014). A Framework for the Integration of Volunteered Geographic Information into Humanitarian Logistics. *20th Americas Conference on IS, Savannah, USA.*

Link, D., Meesters, K., Hellingrath, B., Van de Walle, B. (2014). Reference Task-based Design of Crisis Management Games. *11th International ISCRAM Conference, State College (PA), USA.*

Terlunen, S., Horstkemper, D., Hellingrath, B. (2014). Adaption of the Discrete Rate-based Simulation Paradigm for Tactical Supply Chain Decisions, *2014 Winter Simulation Conference, Savannah, USA.*

DISSERTATIONS

Pfeiffer, D. (2014). Flexibility Planning in Distribution Networks – A Flexibility Planning Model for the Consumer Goods Industry.



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KEY FACTS

INSTITUTION

- 13 research assistants
- 1 postdoc
- 16 student assistants

RESEARCH TOPICS

- Supply chain flexibility
- Spare parts management
- Decentralised supply chain planning
- Meta-heuristics for supply chain planning
- Supply chain security
- Humanitarian logistics
- Impacts of industry 4.0 on SC

UNIVERSITY OF MÜNSTER – INSTITUTE FOR INFORMATION, TELECOMMUNICATION AND MEDIA LAW (ITM) – CIVIL LAW DEPARTMENT

itm

ABOUT THE INSTITUTION

The ITM is the leading Institute for Information, Telecommunication and Media Law in Germany. The Institute's work aims at exploring the legal framework and underlying policies of the information society with a particular focus on "information" as an economic and cultural good. The Institute emphasises the importance of interdisciplinary work since a proper understanding of technological or economic backgrounds is a prerequisite for successful regulation. Many activities are carried out in close cooperation with the Faculty of Economics of the University of Münster. In 2002, the ITM was appointed the Competence Centre in Information, Telecommunication and Media Law for North Rhine-Westphalia. Dr. Thomas Hoeren is a professor of civil law at the University of Münster and has been the director of the ITM since 1997. Due to international projects such as CONSENT, LAPSI, TIMBUS, and MonIKA, Prof. Hoeren has become recognised as a specialist in information law throughout Europe.



RESEARCH TOPICS

Our research focuses on Information Law, Telecommunication Law and Media Law as well as related areas such as Antitrust and Consumer Protection Law. Since Information, Telecommunication and Media Law is characterised as a cross-sectional matter, it cannot be fully covered by any of the traditional legal disciplines by itself. The ITM, therefore, strives for interdisciplinary research and teaching activities.

CURRENT RESEARCH PROJECTS

Currently, the ITM is involved in several EU-funded and national projects.

- **TIMBUS** (Digital Preservation for Timeless Business Processes and Services) is an interdisciplinary research project promoted by the Commission of the European Union and a part of the Seventh Framework Programme for research and technological development (FP7). Project partners are research institutes, NGOs and reputable companies (Project Coordination by SAP AG) from Germany, Portugal, Austria, Ireland and Great Britain. The main objective of TIMBUS is to extend the field of application of digital preservation from static data to the area of holistic and on-

going business processes. TIMBUS will explore data filtering and data storage formats for the activities and mechanisms that are considered necessary for a continuous access, retrieval and validation of current business processes. In the context of Business Continuity Management a new toolkit will be developed: Legalities Lifecycle Management will present an innovative and comprehensive legal solution for long-term preservation of business processes and will establish the next generation Holistic Escrow Services.

- **CONSENT** (Consumer Sentiment Regarding Privacy on User Generated Content Services in the Digital Economy) is an interdisciplinary research project at the EU-level. CONSENT aims to examine consumer sentiment regarding privacy on user generated content (UGC) services such as Youtube, Facebook and MySpace in the digital economy.

- **MonIKA** (Monitoring Through Fusion and Classification of Information for the Detection of Anomalies), a project funded by the German Federal Ministry for Education and Research, is conducted in cooperation with partners in the field of science and industry, namely the Fraunhofer-Institut FKIE, the Unabhängige Landeszentrum für Datenschutz Schleswig-Holstein as well as the EADS-associated enterprise Cassidian. As a result, effective procedures for the detection of security-related anomalies in networks and IT-infrastructures will be developed and established, complying with general legal conditions and Data Protection Law in particular.

- **Within the LAPSI project** (Legal Aspects of Public Sector Information), the institutions involved explore legal problems regarding Public Sector Information and means of solving them on an international level.

- The ITM also hosts the Research Centre for Industrial Property Rights, which offers training and conducts research activities in the field of industrial property rights.

- Moreover, the ITM is part of the German Research Network (Deutsches Forschungsnetz/DFN) that supports communication and exchange of information between representatives of science, research, education and culture in national and international networks. Increasingly, our DFN-members are being faced with issues regarding legal questions of liability, telecommunications and data protection. Therefore, the ITM acts as a legal consultant in terms of information and communication services.

DISSERTATIONS

Martin Hecheltjen (2014): Urheberrechtliche Bewertung vorübergehender Reproduktionen im digitalen Kontext

Arne Neubauer (2014): Internetvertrieb im Kartellrecht

Tobias Born (2014): Die Datenschutzaufsicht und ihre Verwaltungstätigkeit im nicht-öffentlichen Bereich

Christoph Buchmüller (2014): Das nichteingetragene Gemeinschaftsgeschmacksmuster

Manuela Gürtler-Bayer (2014): Der behördliche Datenschutzbeauftragte

Claudia Kodde (2014): Der Streitgegenstand bei Marken



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KEY FACTS

INSTITUTION

- Founded in 1997
- 18 researchers
- 3 additional education programmes

RESEARCH TOPICS

- Information law
- Telecommunication law
- Media law
- Informatics in the legal profession



ABOUT THE INSTITUTION

Our research explores the impact of information and communication infrastructures in an organisational context. We are interested in the development of the digital organisation: how do organisations and leaders respond to the challenges and opportunities of an informed society and economy. In particular we study new modes of organising, coordination and collaboration from the micro level of work practices, to the meso level of group practices and the macro level of infrastructure development.

We aim to understand the dynamics of transformation in a historical, societal, regulatory, and economic context. Our work is theoretically and empirically grounded, and we employ multiple methods and research approaches with an emphasis on qualitative, interpretative approaches.

It is our research philosophy that the implications of innovative ICT become visible and understandable in the context of (communities of) practices. In order to study practices in situ, we advocate a Living Laboratory and Learning Community approach which emphasises research and experimentation in complex real world settings addressing business or societal innovation. Typically multiple stakeholders and researchers from different disciplinary backgrounds are involved.

RESEARCH TOPICS

We pursue this agenda through three inter-related fields of research:

1. The **Communication and Collaboration Management** group studies the impact of ICT infrastructures – specifically real-time collaboration (RTC) or social software – on new ways of organising and work from the individual up to the network level. The emphasis is first on

detailed multi method workplace studies in order to gain deep insights into work practices. Secondly we are looking at organisational “pace” as an indicator of occupational strain. And thirdly we are developing suggestions for organisational development and transformation.

A key theme of our research is the ambivalent outcomes of technology: at the organisational level we observe increasing scope for the design of collaborative and virtual work with performance gains next to increasing multi-tasking, fragmentation of tasks and time pressure with detrimental effects for the organisation. At an individual level, the convenience of technological tools is appreciated by employees (up to the point of addictive behaviour), yet at the same time, the downsides express themselves in terms of increased strain and stress as a result of creeping organisational and behavioural changes (always on).

2. The research group on **Strategic Information Management** comprises a team of researchers particularly interested in how management can make effective use of information and communication technology in support of the information age organisation. The research group’s current research is on

- IT strategies and their implementation via IT programmers,
- Organisational IT value, i.e. the organisational benefits of IT investments,
- IT sourcing and the governance of outsourcing relationships
- IT operations management with a focus on the feasibility und viability of the IT service management paradigm

The research group’s aim is to provide guidance to senior executives by of-

fering recommendations that are both theoretically well founded and carefully validated in industry practice.

3. The **Interorganisational Systems** group studies the evolution of information infrastructures, such as electronic markets or electronic platforms for the exchange of logistics or health care information, over long periods of time. We take a particular interest in the development and transformation of interorganisational information infrastructures and related theoretical and methodological questions. Specifically we study

- how to facilitate collective action in heterogeneous actor constellations or coalitions, as the development of infrastructures involves commitment and coordination of diverse actors
- how standards, which may affect strategic interests, can be developed and widely diffused
- how industry structures, specifically structures of intermediation, are transformed alongside the proliferation of ICT.

CURRENT RESEARCH PROJECTS

Interorganisational Information Infrastructures – Structures, Practices and Development Patterns, funded by the German Science Foundation (DFG)

Interorganisational information infrastructures have become the backbone of modern societies. Yet we know little about their role, impact and development across different segments of society. The project studies several initiatives for information infrastructure development in healthcare, which are not only practically relevant but also pose numerous theoretical challenges. Health care is highly regulated, with heterogeneous constellations of individual and collective actors, and interlinked developments at micro, meso and macro levels.



We have reconstructed the development of electronic prescription and automatic drug dispensing in Germany and compare and contrast the findings with similar initiatives in other European countries. The research design of this exploratory project covers the extension of methods such as ethnographic accounts and participatory observation (practice probes) as well as learning communities. Our main theoretical foundations are infrastructure and practice theory. Principal investigator: Dr. S. Schellhammer

A Cross-Country Analysis of Online Search Behavior

Online search is a crucial stage in the consumer journey and has a significant influence on buyer behaviour. The project, which is jointly conducted with Prof. Christopher Holland, Manchester Business School, conducts international, cross-sector study into consumer search behaviour using online panel data. Initial results indicate different patterns of usage of price comparison engines between online market segments, and relatively small online consideration sets. The project is supported by the Fonds National de la Recherche, Luxembourg (7842603). Principal investigator: J. Jacobs

Social Media as Knowledge Source for Small and Medium Tourism Enterprises (SMTE)

Social media have been recognised as a source of information, user generated content, e.g. reviews, and innovation support. Still, SMTEs in particular are struggling to use social media as input into their learning and innovation processes. The project studies current information practices in SMTEs and aims to identify obstacles to appropriating external information for learning and innovation processes. The project is supported by the Heinrich Hertz Foundation. Principal investigator: Dr. S. Kopera, Jagiellonian University, Krakow.

PUBLICATIONS

Gaebert, C.: Dilemma Structures between Contracting Parties in Software Development Projects. Proceedings of the 9th International Conference on Software Engineering and Applications, 29–31 August 2014. SCITEPRESS Science and Technology Publications 2014, pp. 539–548.

Gaebert, C.: Contract Design and Uncertainty in Software Development Projects. In: Proceedings of the 13th International Conference on Perspectives in Business Informatics Research, September 22–24. Springer (LNBIP 194) 2014, 217–229.

Klein, S., Schellhammer, S. (2014). Infrastructure Innovation in Health Care – The Example of Automatic Drug Dispensing in Germany. In A. Mongili & G. Pellegrino (Eds.), Information Infrastructures: Boundaries, Ecologies, Multiplicity. Cambridge: Cambridge Scholars Publishing.

Steiner van der Kruk, Susanna and Schellhammer, S. (2014) A Reflexive and Interactive Approach on Novice-based Data Collection to Investigate Information Infrastructure (II), in Proceedings of the Twenty Second European Conference on Information Systems, Tel Aviv, June 9–11 2014.

Teubner, R. A.; Diederich, S.: Managerial Challenges in IT Programmes. Evidence from Multiple Case Study Research. In: Becker, J. et al. (eds.): Working Papers, European Research Center for Information Systems, No. 22, Münster/Germany.

Teubner, R. A.; Klein, S.: The Münster Information Management Framework. In: Becker, J. et al. (eds.): Working Papers, European Research Center for Information Systems, No. 17, Münster/Germany.



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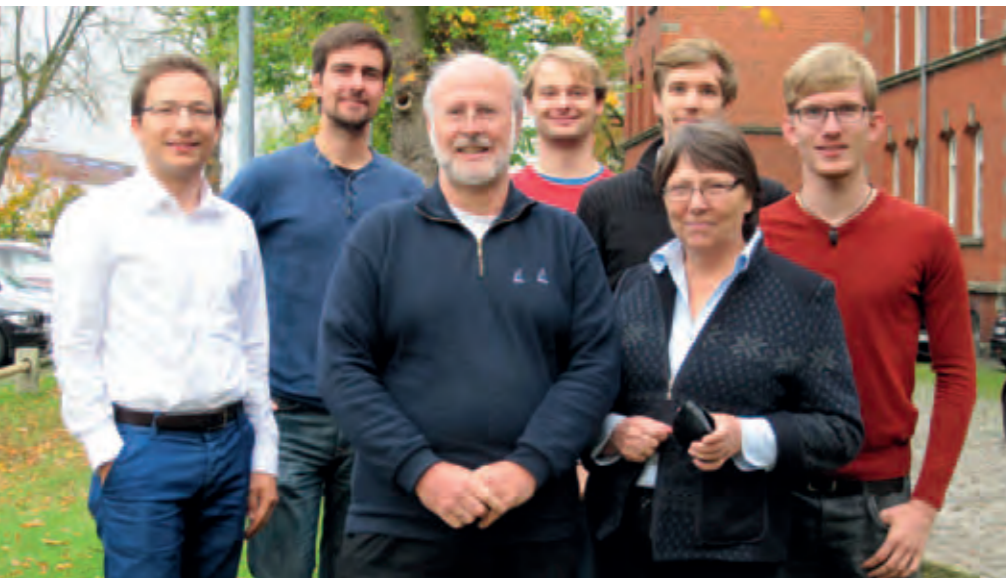
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KEY FACTS

RESEARCH TOPICS

- Information and communications infrastructures
- Strategic alignment
- IT value
- Organisation theory of IS
- Transformation of work
- Appropriation of communication infrastructures
- Communities of practice
- Collective action and standardisation
- Living Lab research approach

UNIVERSITY OF MÜNSTER – CHAIR FOR PRACTICAL COMPUTER SCIENCE



ABOUT THE INSTITUTION

Since 1997, the Chair of Practical Computer Science has been held by Prof. Dr. Herbert Kuchen. He is responsible for teaching in the area of software engineering, programming languages, and programming. Maintaining close partnerships and collaborations with several local companies, his group is offering students the chance to write bachelor's and master's theses with high practical relevance.

RESEARCH TOPICS

The research of the group focusses on selected aspects of Software Engineering. Our fields of research are Business Apps, Model Driven Software Development, Domain-Specific Languages, Testing, Parallel Programming, and e-Assessment.

CURRENT RESEARCH PROJECTS

With the increasing importance of mobile devices, mobile applications for business purposes (so called Business Apps) have become a major topic for software vendors and IT-departments of companies. In a joint project with regional companies, we have investigated the status quo of Business App development as well as typical requirements and problems. Based on these findings we pursue several topics that are both relevant for practice and pose research questions. We thereby contribute to the understanding of business app development and deployment. As a particular focus, we

explore cross-platform development approaches that handle platform heterogeneity. In this regard, we specifically look into model-driven approaches to app development. Our MD² framework enables the modelling of an app in a suitable domain-specific language (DSL) and automatically generates Android and iOS apps from this specification. While the basic development took place in 2012, the framework has been refined and evaluated in 2013. Work continues in cooperation with a geoinformatics company. Along with the development of MD², various topics in Mobile Computing have been investigated.

Practical exercises play an important role in academic teaching. Our e-Assessment system EASy aims at facilitating the management of exercises and supporting the preparation, execution and post-processing of exercises. It is now integrated in the university e-Learning system Moodle. EASy supports programming tasks and mathematical proofs as well as verification proofs. Currently, we are developing a further module to support assessing fundamental concepts of data structure operations (i.e. search, insert and delete operations) taught in Computer Science lectures.

Experience shows that the development of parallel programs is an elaborate and time-consuming task. The Münster Skeleton Library (Muesli) is a collection of high-level

concepts that facilitate the development of parallel programs. The library contains so-called algorithmic skeletons, i.e. frequently recurring parallel programming patterns, which can be easily and efficiently combined to develop parallel applications. Recently, we have extended Muesli for hybrid and heterogeneous architectures and have evaluated simultaneous executions on CPUs and GPUs.

Software testing is essential for the creation of high-quality software. Recently, we have improved the Münster Generator of Glass-box Test Cases (Muggl). In particular, we have added a finite domain constraint solver in order to increase efficiency. This has been done in a DAAD project in cooperation with our partners at the Universidad Complutense de Madrid.

PUBLICATIONS

Ernsting, S., Kuchen, H.: A Scalable Farm Skeleton for Hybrid Parallel and Distributed Programming. In: International Symposium on High-Level Parallel Programming and Applications (HLPP2013), G. Hains, Y. Khmelovsky, Eds., International Journal of Parallel Programming. Springer Verlag, 2014.

Hanschke, S., Ernsting, J., and Kuchen, H.: Integrating Agile Software Development and Enterprise Architecture Management. In: Proceedings of the 48th Annual Hawaii International Conference on System Sciences (HICSS), Computer Society Press, to appear.

Usener, C.: EASy-DSBuilder: Automated Assessment Tool for Tree Data Structures in Computer Science, submitted.

Majchrzak T. A. and Heitkötter, H.: Status Quo and Best Practices of App Development in Regional Companies. In: Lecture Notes in Business Information Processing (LNBIP), Springer, 2014.

Heitkötter, H., Majchrzak T. A., Ruland, B. and Weber, T.: Comparison of Mobile Web Frameworks. In: Lecture Notes in Business Information Processing (LNBIP), Springer, 2014.

Heitkötter, H., Kuchen, H., and Majchrzak T. A.: Extending a Model-Driven Cross-Platform Development Approach for Business Apps. Science of Computer Programming (SCP), 2014.

Hildebrand, K. F. and Majchrzak, T. A.: Analyzing the Impact of Game Vendors' Actions on the Monetary Value of Virtual Goods. International Journal of E-Business Research (IJEER), 10(1): 2014.

EVENTS

Prof. Kuchen served on the programme committees of the following conferences:
- Programme committee member of HLPP 2014, Amsterdam, The Netherlands.

- Programme committee member of WFLP 2014, Wittenberg, Germany.

- Programme committee member of 11th International Conference on Principles and Practices of Programming on the Java platform (PPPJ 2014), Krakow, Poland.

- Programme committee member of 8th IEEE International Conference on Software Security and Reliability (SERE 2014), San Francisco, USA.

- Programme committee member of 7th Working Conference on Programming Languages (Arbeitstagung Programmiersprachen, ATPS 2014), Kiel, Germany.

- Programme committee member of 29th Symposium On Applied Computing (SAC 2014), Gyeongju, Korea.

- Programme committee member of 6th International Conference on Advanced Geographic Information Systems, Applications, and Services (GEO-Processing 2014), Barcelona, Spain.

Moreover, he was:

- Member of the Scientific Advisory Board of IMDEA-Software (Research Institute on Technologies for Software Development), Spain.

- Managing Director of the Institute for Applied Informatics at the University of Münster.

- Editor of the Open Journal of Web Technologies.

Dr. Majchrzak served on the programme committees of the following conferences:

- Web Technologies track of the ACM 28th Symposium On Applied Computing (SAC) 2014.

- Information Systems Education & Curricula Workshop (ISEC) of the Federated Conference on Computer Science and Information Systems (FedCSIS 2014).

- 7th Annual SIGSAND/PLAIS EuroSymposium 2014.

- 10th International Conference on Web Information Systems and Technologies (WEBIST 2014).

Moreover, he was:

- Member of the Editorial Board of the Open Journal of Information Systems (OJIS).

- Member of the Editorial Board of the Special issue on Web Technologies of the Journal of Web Engineering, 2014.

- Co-Chair of the Special Session on Business Apps (BA 2014) in conjunction with the 10th International Conference on Web Information Systems and Technologies (WEBIST 2014).

- Co-organiser of the 14th. Juniorprofessoren- und Habilitandentreffen der Wirtschaftsinformatik (Junior Faculty and Assistant Professors' Meeting) at the University of Cologne.



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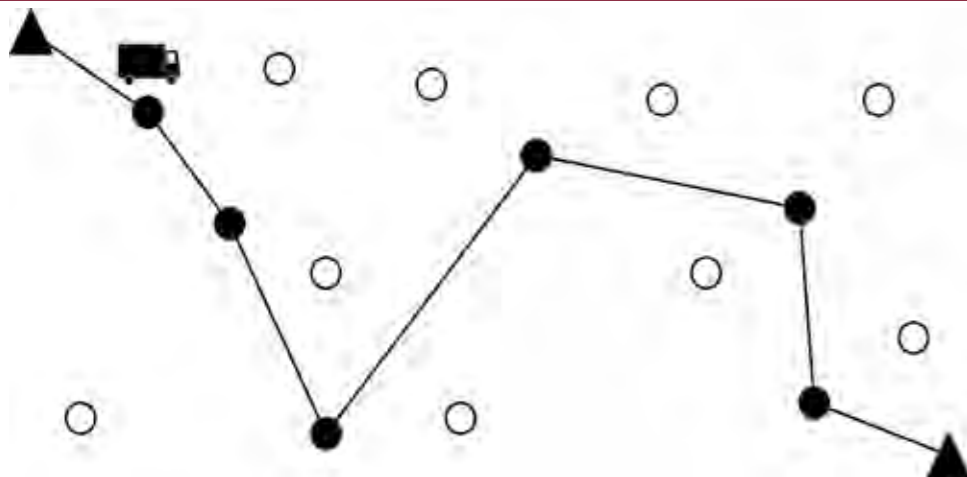
KEY FACTS

INSTITUTION

- Founded in 1997
- 6 researchers

RESEARCH TOPICS

- Business apps
- Model-driven software development
- Parallel programming
- Software testing
- Integration of programming paradigms
- E-Learning



ABOUT THE INSTITUTION

Quantitative Methods for Logistics is the most recently founded group in the Department of Information Systems at the University of Münster, Germany. It has been a member of the European Research Centre for Information Systems since June 2013.

The group's activities in both research and teaching primarily focus on optimal decision making in logistics and energy systems. Recently business operations within these fields have been subject to major challenges such as increasing resource prices, electronic commerce, mobile communication, renewable energies and real-time tracking and tracing.

The Quantitative Methods for Logistics group addresses these challenges by developing new models and methods that allow for best possible decision making in today's business operations.

As a natural counterpart of the complexity of modern decision processes, both the models and the methods developed to capture these processes need to rely on a number of different scientific disciplines. Consequently the activities of the group are highly interdisciplinary – combining and integrating techniques from fields such as mathematical optimisation, data mining, computer simulation, stochastic processes and databases.

The group is headed by Stephan Meisel, who was a postdoctoral research associ-

ate at Princeton University before joining the University of Münster in the summer of 2013. Stephan Meisel currently is an assistant professor in the Department of Information Systems.

RESEARCH TOPICS

The research activities of the group pursue two main goals. On the one hand a key focus is modelling operational decision problems and solving them by application of state-of-the-art methods. On the other hand the group's research also aims at advancing the algorithmic state-of-the-art by developing new methods that enable more efficient decision making.

As a response to the needs of today's processes in logistics and energy systems, the research activities revolve around the area

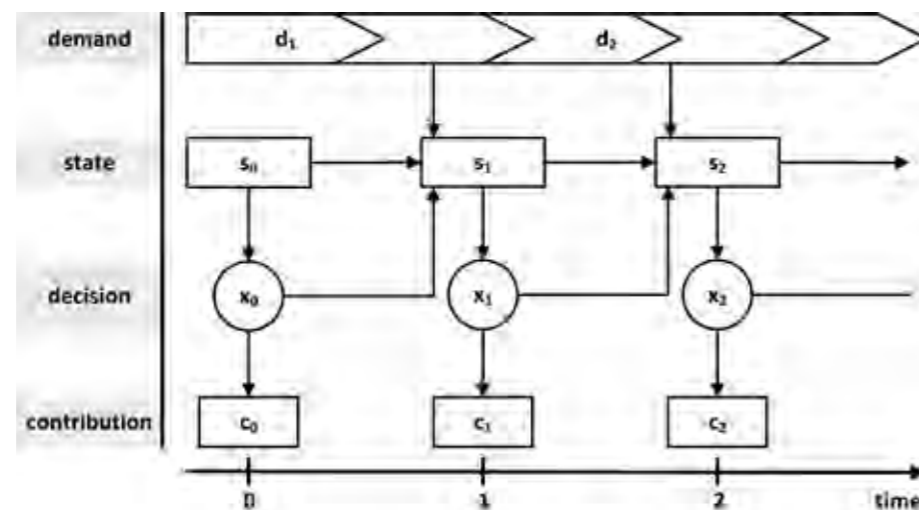
of Anticipatory Optimisation for Dynamic Decision Making, which serves as a general framework for studying multistage decision problems under uncertainty.

Uncertainty has become one of the main characteristics of real-world business processes. Today's companies continuously receive new information in terms of, e.g., customer orders, price changes or availability of resources such as renewable energy. Due to technological innovations such as GPS, mobile communication and Big Data, companies are able to use this newly arriving information for continuous adaptation of their current operational plans.

However, any plan revision that is made now does affect the future evolution of the business process under consideration. Coordination of planning decisions over time becomes the crucial point in adapting an operational process. Anticipatory Optimisation takes into account the decision maker's uncertainty about the future and aims at an optimal sequence of planning decisions within a given logistics process.

CURRENT RESEARCH PROJECTS

Most of the current research projects focus on multistage decision problems within a specific application domain. The main current projects are:



Dynamic Decision Making

Energy Storage Management

Together with our research partner at Princeton University we have been working on a universal policy for making energy storage decisions. As an intermediate result we recently completed a tutorial paper on stochastic optimisation models and policies for energy systems.

Energy storage management has become very important with renewable energies. Sources of renewable energy, such as wind or solar, are intermittent and energy prices tend to be varying over time. Therefore companies relying on renewable energy make use of energy storage devices.

The main research question is how to repeatedly make good decisions about how much energy to store and how much energy to buy from electricity providers.

Stochastic Network Interdiction

Together with Professor Ricardo Collado, ER-CIS partner at Stevens Institute of Technology in Hoboken, New Jersey, we have been working on risk-averse approaches to stochastic network interdiction.

Stochastic network interdiction is a multistage decision process for protecting a network against threatening activities. Interdiction problems arise naturally in a variety of areas, such as humanitarian logistics, infectious disease control and security checks in traffic networks.

An interdictor's goal is to protect his network with high probability by using limited resources. In order to allocate resources, such as, e.g., monitoring stations, in the network, the interdictor must rely on assumptions about how the threatening activity is going to move in the network. The main research question is how to cope with the risk introduced by errors in these assumptions.

Dynamic Service Vehicle Routing

Service vehicles play an important role in many business models. Grocery shopping home delivery, less-than-truckload trucking

and on-site maintenance services are just a few examples. In each of these examples a company running a fleet of service vehicles aims at either minimisation of operational costs or maximisation of customer satisfaction. In order to achieve these goals, the company has to make repeated decisions on the assignment of customers to vehicles and on the vehicles' routing plans. Each time a new customer calls in, both current customer assignments and routing plans need to be revised.

The main research question is how to do plan revisions such that the decision maker's goal is achieved at the end of the day.

PUBLICATIONS

W. Powell, S. Meisel (2014). Stochastic Optimization Models and Policies for Energy Systems. IEEE Transactions on Power Systems (submitted)

R. Collado, S. Meisel, L. Priekule (2014). Risk-Averse Stochastic Interdiction on a Network. European Journal of Operational Research (submitted)

R. Ball, J. Branke, S. Meisel (2014). Optimal Stochastic Annealing. Operations Research (submitted)

J. Ehmke, S. Meisel, D. Mattfeld (2012). Floating Car Based Travel Times for City Logistics. Transportation Research Part C: Emerging Technologies, 21(1), 338–352

S. Meisel (2011): "Anticipatory Optimization for Dynamic Decision Making"; Operations Research/Computer Science Interfaces Vol. 51; Springer; New York

S. Meisel, D. Mattfeld (2010): "Synergies of Operations Research and Data Mining" European Journal of Operational Research, 206(1), 1–10

J. Branke, S. Meisel, C. Schmidt (2008): "Simulated Annealing in the Presence of Noise"; Journal of Heuristics, 14(6), 627–654



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KEY FACTS

RESEARCH TOPICS

- Transportation and logistics
- Energy systems
- Dynamic decision making
- Anticipatory optimisation
- Computational stochastic optimisation
- Approximate dynamic programming
- Simulation optimisation

UNIVERSITY OF MÜNSTER – RESEARCH GROUP FOR COMMUNICATION AND COLLABORATION MANAGEMENT

> University of Münster www.wi.uni-muenster.de/kuk



ABOUT THE INSTITUTION

Organisations are increasingly relying on information technology to support communication and collaboration among their employees. This is caused by a growing number of distributed tasks, the need for expert knowledge, and project-based work. At the same time, the use of public social media (e.g., Twitter and Facebook) and mobile services has tremendously influenced today's society and therefore strongly affects organisations.

The ERCIS Research Group for Communication and Collaboration Management at the University of Münster, headed by Prof. Dr. Stefan Stieglitz, investigates organisational, social, and economic impacts of those massive changes of the organisational environment. The research group, consisting of three research assistants and six student assistants, experienced a very busy and exciting year in 2014.

First of all, we are very happy to report that our current project "Issue Dynamics of Public Online Communication" will be funded by the German Research Association (DFG) for two more years. This will allow us to extend our research on network dynamics and content analysis of current topics on Twitter until 2017.

In 2014, Stefan Stieglitz traveled to Sydney to start the new international project "Crisis Response Information Classification Framework (CRIF)" which runs in cooperation with the University of Sydney (Prof. Dr. Deborah Bunker and Prof. Dr. Kai Riemer). The German Academic Exchange Service (DAAD) funds the project for two years. The key questions to be answered are: How can social media be used during crisis situations? How can emergency service agencies use social media data to get additional information about certain crises?

Further, we proudly presented the intermediate results of our BMBF project "Analysis of Discourses in Social Media", funded by the Federal Ministry of Education and Research, at the computer science fair CEBIT in Hannover.

As a joint project with the research group of Prof. Klein, we developed a training concept for enterprise social networks for consultants at GAD. The GAD eG is an IT service provider for financial service companies (mostly banks).

In 2014, the research group published more than 17 research articles in journals like Business and Information Systems Engineering (BISE), Information Technology, and the Business Process Management Journal (BPMJ). Besides this, the research group presented research activities at

well-recognised conferences such as the International Conference on Information Systems (ICIS) in Milan and the European Conference on Information Systems (ECIS) in Tel Aviv.



CCM@ECIS

Stefan Stieglitz is also academic head of the ERCIS Competence Centre Connected Organisation. (see page 80).

RESEARCH TOPICS

The research group focusses on four research fields:

Social Media Analytics

Social media have led to wide-ranging changes in public communication and in communication between enterprises and customers. As a result, new requirements for companies and political actors arise with respect to comprehension of this communication and participation in it.

Enterprise Social Networking

Communication in social networks is based on voluntariness and openness. However, the introduction and operation of social software can also be understood as a project, which requires transformation and management activities. Empirical studies are needed to investigate the contradictory contexts of voluntariness and organisational hierarchies.

Blended Learning

The establishment of social media, mobile devices, and other communication and collaboration systems results in new potentials for teachers, learners and educational institutions. In this area, we examine the influence of new technologies on knowledge transfer and collaborative learning.

Mobile Enterprise

In recent years, the diffusion of smartphones and other mobile devices has rapidly increased. This offers new potential for organisations and significantly influences society (e.g. Work-Life Integration). The research group investigates how mobile devices enable business values in enterprises and how IT executives can efficiently manage the transformation process.

CURRENT RESEARCH PROJECTS

Issue Dynamics of Public Online Communication

In this project we closely cooperate with Ludwigs-Maximilians-University Munich (Prof. Dr. Neuberger). We apply methods such as network analysis and text mining on Twitter data that we have collected. The data sets include structured as well as unstructured data from communication on Twitter. The overall goal of the project is to detect mechanisms of rising topics in Twitter, that have economic or political relevance. The project was selected by the DFG to be presented at "Terra Digitalis" (<http://www.terra-digitalis.dfg.de/32-wer-zwitschert-lauter.html>) and will be funded until 2017.

Discourse Analysis in Social Media

In this interdisciplinary research project started in May 2012 and funded by the Federal Ministry of Education and Research (BMBF), four German universities cooperate to investigate and develop new methods for social media analytics and eHumanities. To this end, we track content on Facebook, Twitter, and blogs and analyse it on a large scale. Stefan Stieglitz as a researcher of information systems coordinates the overall project (www.social-media-analytics.org).



Presentation of BMBF Collaborative Project at CEBIT 2014

Sync & Share NRW

Sync&Share NRW is an upcoming on-site cloud service for up to 500,000 users, hosted by the Universities of Münster, Bonn and Duisburg-Essen. In cooperation with the Centre for Applied Information Technology of Münster University (ZIV), we conduct research on cloud services in higher education in order to get information for successful decision making.

AWARDS

The students project seminar team "Mobile Learning", supervised by the Research Group for Communication and Collaboration Management, won the "Best of Mobile Award 2014" with their m-learning application at the largest German mobile fair "M-Days" in Frankfurt.

PUBLICATIONS

Stieglitz, S., Dang-Xuan, L., Bruns, A., & Neuberger, C. (2014). Social Media Analytics: An Interdisciplinary Approach and Its Implications for Information Systems. Business and Information Systems Engineering.

Stieglitz, S., Meske, C., Vogl, R., & Rudolph, D. (2014). Demand for Cloud Services as an Infrastructure in Higher Education. In Proceedings of the 35th International Conference on Information Systems (ICIS), Auckland, New Zealand.

Bruns, A., & Stieglitz, S. (2014). Twitter Data: What Do They Represent? *Information Technology*, 56(5), 240–245.



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www.youtube.com/wikukunims

KEY FACTS

INSTITUTION

- Founded in April 2010
- 3 researchers
- Joint projects with international researchers (University of Sydney and Queensland University of Technology) and industry partners

RESEARCH TOPICS

- Enterprise social networking
- Social media monitoring and analytics
- Collaboration in virtual worlds
- Blended learning
- Mobile enterprise



ABOUT THE INSTITUTION

The Information Systems and Statistics group was founded in April 2013. Heike Trautmann is head of the group and member of the ERCIS directorate. The team contributes to the research areas of multi-objective optimisation, evolutionary computation, algorithm evaluation and selection, and computer games, as well as statistical quality management, data retrieval and clustering techniques in several international collaborations. Additionally, the group offers many courses in bachelor's and master's degree programmes with mathematical, statistical, and algorithmic foci.

RESEARCH TOPICS

Multi-objective Optimisation deals with the simultaneous optimisation of (at least partially) contradictory objectives. We usually focus on the a posteriori case, where an optimisation technique offers a set of Pareto-optimal solutions from which a decision maker can pick a subset afterwards. As most multi-objective problems cannot be solved exactly, we apply optimisation techniques from Evolutionary Computation.

In the context of **Algorithm Benchmarking** activities, the group evaluates the performance of different evolutionary and nature-inspired techniques and contributes to algorithm development and enhancement. For multi-objective evolutionary techniques, the development of quality indicators is a major research topic. Measures for approximation quality with respect to the precision and spread of solution sets are investigated and integrated into new algorithmic approaches. Directly related to benchmarking

and the identification of characteristics of optimisation problems, **Algorithm Selection** means the selection process for suitable algorithmic approaches. Methodologically, identified problem properties are matched to known algorithms' solving characteristics in order to find the best performing approaches for a given problem. Due to cooperation with German and international researchers, the group is strongly involved in this area. For practical applicability of evolutionary multi-objective techniques, the usability of algorithmic approaches and inclusion of additional knowledge (e.g. specific expert knowledge on real world problems) is a major challenge. Therefore, the group develops and evaluates new algorithm architectures and hybridisation principles with a user-centric perspective. Computational Intelligence methods are also well suited to **Computer Game AI** problems because they can deal well with partial information, uncertainties, and real-time conditions. We are currently mainly dealing with two hot topics in Game AI, namely non-player character control (in the widest sense, up to developing car racing controllers or improving team dynamics), and procedural content generation, with a focus on real-time strategy games. Additionally, we also take "non-leisure" games into account and employ current Game AI techniques for Gamification and Serious Games. Furthermore, we are interested in statistical quality control. In this context, a project seminar in collaboration with a print media company was organised in the 2014–2015 winter term.

CURRENT RESEARCH PROJECTS

The DFG funded cooperation project "Addressing Current Challenges in Evolutionary Multi-Objective Optimization: Indicator-based Selection, Convergence, and Applicability" together with the Laboratório de Inteligência e Robótica Aplicada at Rio de Janeiro University, Brazil, started in January 2014. In March a research visit of group members from Münster and partners from TU Dortmund took place. The project fosters trans-atlantic collaboration in indicator-based multi-objective evolutionary optimisation. A research visit by the Brazilian partners is scheduled for the end of 2014. To deepen collaboration further, a follow-up proposal has been submitted to the DAAD.

The DAAD funded two-year collaboration project "Hybridization of Indicator-based Metaheuristics with Modern Local Search Methods in Multiobjective Optimization" together with TU Dortmund University and CINVESTAV-IPN, Mexico, started in January 2014. This project realises international expertise exchange between German and Mexican researchers in the context of hybrid evolutionary multi-objective optimisation. A special focus lies in integrating local search into state-of-the-art meta-heuristics. The research stay of the German team in July successfully fostered the collaboration and the Mexican team visited WWU Münster in November to work on the ongoing projects.

The COSEAL (Configuration and Selection of Algorithms) research group (<http://code.google.com/p/coseal/>) is an international consortium of researchers from Canada, Ireland, Denmark and Germany that addresses current challenges in Algorithm Selection, Algorithm Configuration and Machine Learning. Specifically, international cooperation has been intensified with Prof. Dr. Holger Hoos from the University of British Columbia (Vancouver, Canada) who additionally spent a few months as a guest researcher at WWU Münster.

Members of the COSEAL group, including the group from Münster, created an online platform for benchmarking algorithm selection problems and models. On September 29 and 30, the 2nd COSEAL workshop was held at the University of Freiburg. An application within the DAAD funded Group

of Eight Australia-Germany (Go8) Joint Research Cooperation Scheme with the School of Mathematical Science at Monash University was submitted, dealing with "Problem-based Algorithm Selection and Design for Multi-objective Optimization". A DFG proposal entitled "Architectures for Evolutionary Multi-Objective Algorithms to Support User Expertise Integration" was submitted to investigate and advance the applicability of current evolutionary algorithm architectures. In the context of the upcoming ECIS 2015 event in Münster, the group started cooperation with the Quantitative Methods in Logistics group to address and solve orienteering and cost-efficient transportation problems in a multi-objective way.

EVENTS

Several recent works of the Information Systems and Statistics group in energy system optimisation and game AI have been presented at the Evo* conference in Granada (April 23–25, 2014).

The EVOLVE 2014 conference in Beijing, China (July 1–4, 2014) was strongly influenced by the group. Along with the co-organisation of the track on "Evolutionary Multi-Objective Optimisation", several research results were presented and published at the conference.

The group also took part in the Multi-Player2 conference that was held on August 14–15, 2014 in Münster, and attracted many researchers from different disciplines, all interested in current developments in games and their impact on the society.

From August 26–29, the group co-organised the IEEE Computational Intelligence and Games conference 2014 in Dortmund, which attracted around 100 participants from more than 20 countries. The event was supported by ERCIS and the alumni of the computer science faculty of TU Dortmund.

The group also participated in the ERCIS PhD Colloquium (September 8–10, 2014) and the 5th Annual ERCIS Workshop (September 12–14, 2014).

At the Parallel Problem Solving from Nature (PPSN) conference in Ljubljana (September 13–17, 2014), the group co-organised a workshop on "Advances in Multimodal Opti-

mization", gave a tutorial on Multimodal Optimization, and presented their recent work on stopping criteria.

At the upcoming ECIS 2015 event in Münster, group members will serve as track chairs and associate editors in the decision support and Big Data tracks.

PUBLICATIONS

D. Brockhoff, T. Wagner, H. Trautmann (2014). R2 Indicator Based Multiobjective Search. Evolutionary Computation Journal

O. Mersmann, M. Preuss, H. Trautmann, B. Bischl, C. Weihs (2014). Analyzing the BBOB Results by Means of Benchmarking Concepts. Evolutionary Computation Journal

G. Rudolph, C. Grimme, O. Schütze, H. Trautmann (2014). An Aspiration Set EMOA Based on Averaged Hausdorff Distances. LION 8

S. Wessing, M. Preuss, H. Trautmann (2014). Stopping Criteria for Multimodal Optimization. PPSN XIII

P. Kerschke, M. Preuss, C. Hernández, O. Schütze, J. Sun, C. Grimme, G. Rudolph, B. Bischl, H. Trautmann (2014). Cell Mapping Techniques for Exploratory Landscape Analysis. EVOLVE

G. Rudolph, O. Schütze, C. Grimme, H. Trautmann (2014). A Multiobjective Evolutionary Algorithm Guided by Averaged Hausdorff Distance to Aspiration Sets. EVOLVE

J. Quadflieg, M. Preuss, G. Rudolph (2014). Driving as a human: a track learning based adaptable architecture for a car racing controller. Genetic Programming and Evolvable Machines

P. Burelli, M. Preuss (2014). Automatic Virtual Cinematography: a Dynamic Multi-Objective Optimisation Perspective. EvoApplications

M. Preuss, P. Voll, A. Bardow, G. Rudolph (2014). Looking for Alternatives: Optimization of Energy Supply Systems without Superstructure. EvoApplications

M. Preuss, A. Liapis, J. Togelius (2014). Searching for Good and Diverse Game Levels. Computational Intelligence and Games

T. Liboschik, P. Kerschke, K. Fokianos, R. Fried (2014). Modelling interventions in IN-GARCH processes. International Journal of Computer Mathematics



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KEY FACTS

INSTITUTION

- Founded in April 2013
- 5 researchers

RESEARCH TOPICS

- Multi-objective Optimisation
- Evolutionary computation
- Algorithm benchmarking
- Algorithm selection
- Computer games: Gamification and serious games
- Hybridisation of algorithms
- Statistical quality management
- Model selection
- Clustering

OUTLOOK

Prof. Trautmann is co-chair of the Decision Support track of the ECIS 2015 conference held in Münster.

UNIVERSITY OF MÜNSTER – CHAIR OF COMPUTER SCIENCE – DBIS GROUP



ABOUT THE INSTITUTION

Databases and database systems have always been at the heart of information systems. While their visibility has been decreasing in recent decades, their importance as a core infrastructure underlying modern IT systems, including those on the Web and in the cloud, has always been growing. This is due to the fact that database systems offer functionality, such as high-level querying or transactional contracts, that is central to many applications, and that they have adapted to the growing requirements regarding availability, scalability, and data modelling. The DBIS Group in the Department of Information Systems at the University of Münster, is a member of the European Research Centre for Information Systems (ERCIS) and as such studies challenges regarding the adoption, application, exploitation, and usage of databases, data warehouses, and other data management systems in business-oriented domains.

Dr. Gottfried Vossen, Professor of Computer Science and head of the group, is a Fellow of the German Computer Science Society (GI), Honorary Professor at the University of Waikato Management School in Hamilton, New Zealand, and the European Editor-in-Chief of Information Systems, an International Journal. He is also Associate Editor of the International Journal on Semantic Web and Information Systems and university contact person for the German Computer Science Society, as well as speaker of the local GI chapter. Furthermore, he is deputy chairman of the steering committee of the German information technology certification

agency Cert-IT and serves on several editorial boards and programme committees.

RESEARCH TOPICS

Research topics currently studied by the DBIS Group include challenges involving data and processes, data warehousing, (social) business process management, Big Data processing and handling, data marketplaces, data pricing, information provisioning and specific modern applications involving social media. Our approach is based on the conviction that (business) processes and process models are elementary tools for perceiving and analysing applications. In order to execute a process, however, appropriate means for managing the data that arises are needed. This data typically comes in high quantities, high frequency, and high variety, and hence requires suitable tools for its processing. This is where we derive our research topics from.

CURRENT RESEARCH PROJECTS

Big Data Lab

The DBIS Group's Big Data Lab is an environment for familiarising small and medium enterprises (SMEs) in particular with concepts related to Big Data. While large organisations lead the use and adoption of Big Data technologies, SMEs are still hesitant to follow. Built with modern software on top of commodity hardware, the Lab is designed as a playing field that can be used as an entry point to conveniently try out Big Data technologies. The Lab architecture facilitates an exploitation of traditional technologies through data warehousing with Pentaho BI Servers for OLAP

and novel Big Data technologies through Hadoop 2.0, which includes the distributed storage engine HDFS and MapReduce. The Lab features two sample use cases as demonstrators that are tailored for the resource situation in SMEs, where existing analytics are not abolished but enhanced with Big Data technology.

Gamification of Business Process Modelling

Business Process Modelling is an activity during which a modeller creates a graphic representation of the business processes of an organisation. As part of its research portfolio, the DBIS Group is working together with Horus software GmbH from Ettlingen to analyse the potentials of Gamification within this context. The relatively novel term Gamification describes the use of game elements within non-game contexts to enable the design of better products and services and to increase customer engagement. The goal of this research endeavour is the conceptualisation, implementation, and evaluation of a Gamification module for the Horus Business Modeler, a process modelling software developed and marketed by Horus software GmbH. Expected benefits are an increased motivation of process stakeholders to participate in modelling, a higher quality of process models through timely and suitable feedback, and process modelling "learning-by-doing."

WiPo

Web in Your Pocket (WiPo) is a research project conducted by the DBIS group in close cooperation with an ERCIS partner, Department of Management Systems in Hamilton, New Zealand. WiPo is based on the observation that even though the Web offers a plethora of data and information, highly specialised or complex search queries – such as queries regarding rare illnesses or a comprehensive holiday-itinerary – cannot currently be answered by common search engines in a satisfying way. The WiPo approach differs from traditional search engines by exploiting comprehensive (pre-) processing of Web data, most importantly including curation, i.e., the partially manual supervision of data sources and data



quality with regard to a given subject area. Furthermore, "in your pocket" refers to the fact that parts of the information gathered in this way are made available offline on a portable device, in order to allow users to access the information even when mobile internet connections are not available or prohibitively expensive.

EXECUTIVE EDUCATION

On 27th January 2015 a new executive programme will start entitled Postgraduate Certificate in Management – Emergent Business Technologies. This programme has been developed and will be taught jointly by WWU Weiterbildung and the University of Waikato Management School in Hamilton, New Zealand. It is intended to help middle to upper management get up-to-date with the technology and technological advancements that are happening today and to keep up with them in future IT decision making.

PUBLICATIONS

St. Dillon, K. Rastrick, F. Stahl, G. Vossen: Cases for the Web in the Pocket (WiPo): Surviving Offline with Online Data; to appear in International Journal of Information Technology and Web Engineering, 9(3), 2014.

St. Dillon, G. Vossen: SaaS Cloud Computing in Small and Medium Enterprises: A Comparison Between Germany and New Zealand; to appear in International Journal of Information Technology, Communications and Convergence 2014

T. Haselmann, G. Vossen: EVACS: Economic Value Assessment of Cloud Sourcing by Small and Medium-sized Enterprises; EMISA Forum 1/2014, 18-31

J. Lechtenbörger, G. Vossen: NoSQL, NewSQL, MapReduce und Hadoop; in: P. Chameni, P. Gluchowski (Eds.): Analytische Informationssysteme: Business Intelligence-Technologien und -Anwendungen, 5. Auflage, Springer-Verlag, Berlin 2015

N. Pflanzl, K. Bergener, A. Stein, G. Vossen: Information Systems Freshmen Teaching – Case Experience From Day One; Becker, J., Backhaus, K., Hellingrath, B., Hoeren, T., Klein, S., Kuchen, H., Müller-Funk, U., & Vossen, G. (Eds.), ERCIS Working Papers: Vol. 21. Münster, 2014

N. Pflanzl, G. Vossen: Challenges of Social Business Process Management; Proc. 47th Hawaii International Conference on System Sciences (HICSS) 2014, Waikoloa, Big Island, Hawaii, 3868-3877

F. Stahl, A. Godde, B. Hagedorn, B. Köpcke, M. Rehmer, G. Vossen: Implementing the WiPo Architecture; M. Hepp, Y. Hoffner (Eds.): Proc. 15th International Conference on Electronic Commerce and Web Technologies (EC-Web) 2014, Munich, Germany, Springer LNBI Vol. 188, 2014, 1-12

F. Stahl, A. Löser, G. Vossen: Preismodelle für Datenmarktplätze; Informatik-Spektrum 37, 2014 (DOI 10.1007/s00287-013-0751-7)

F. Stahl, F. Schomm, G. Vossen: The Data Marketplace Survey Revisited; Proc. 11th International Baltic Conference on Databases and Information Systems (Baltic DB&IS) 2014, Tallinn, Estonia, 135-146

F. Stahl, G. Vossen: Sicherung der Privatheit in einer experimentellen Bankfiliale bei Facebook; DOAG Business News, Ausgabe Sommer 2014

G. Vossen: Big Data as the New Enabler in Business and other Intelligence; Vietnam Journal of Computer Science 1 (1) 2014, 1-12; DOI 10.1007/s40595-013-0001-6

G. Vossen: Big Data: Der neue Katalysator für Business und andere Intelligenz; in: T. Schwarz (Eds.): Leitfaden Marketing Automation; marketing-BÖRSE, Waghäusel, 2014

DISSERTATIONS/HABILITATIONS

Christian Forster: Webanwendungsentwicklung mit XML-Techniken, Universität Münster, urn:nbn:de:hbz:6-22369579745, 2014



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KEY FACTS

RESEARCH TOPICS

- (Social) Business process management and gamification
- Big Data processing and handling
- Data marketplaces and data pricing
- Data warehousing, ETL processes, data profiling
- Information provisioning (Web in Your Pocket)
- Modern applications involving social media

EVENTS

- ERCIS Launch Pad, annually in fall, in 2014 on 26th November
- Postgraduate Certificate in Management – Emergent Business Technologies starting 27th January 2015

KEDGE BUSINESS SCHOOL – DEPARTMENT OF OPERATIONS MANAGEMENT AND INFORMATION SYSTEMS

› Kedge Business School – Department of Operations Management and Information Systems www.kedgebs.com



KEDGE
BUSINESS SCHOOL

ABOUT THE INSTITUTION

Kedge Business School

Kedge Business School offers a large portfolio of degree programmes ranging from bachelor's and master's degrees to MBAs and Executive Education. Research performed by its faculty is highly regarded, and covers such areas as global responsibility, supply chain management, wines and spirits management, arts and culture management and innovation in SMEs. International students can also take a semester abroad in one of its 280 partner universities.

Kedge Business School holds three accreditations – from EQUIS, AACSB and AMBA – and has been ranked by the Financial Times since 2008. Kedge Business School is committed to excellence, social responsibility and diversity. Therefore, it has decided to offer financial support to talented international students.

The Department of Operations Management and Information Systems is valued for its competency in purchasing, logistics, and supply chain and information systems management. The team members are highly recognised for expertise in the area of Information and Decision Science, in the research fields of Knowledge Management and Organizational Learning.



RESEARCH TOPICS

The areas of research pursued by the team members are wide-ranging: developing business models of electronic marketplaces and measurements of electronic service quality, systemic analysis of organisational design and the performance of inventory control systems, formal modelling of the various organisational learning mechanisms and causal mapping applications in managerial decision-making.

CURRENT RESEARCH PROJECTS



The e-DENT Project

Many people are unable to have a regular consultation with a dentist. These include some of the most vulnerable populations, such as prisoners, the frail, the elderly and the disabled. Yet despite an increased awareness of the importance of oral health, tele-medicine is rarely used in dentistry. To address this problem, the University Hospital of Montpellier launched the e-DENT pro-

ject to provide remote consultations – “tele-consultations” – for this type of patient.

Five “intraoral” cameras have been acquired that use fluorescent light to highlight various problems with oral health. The cameras are small and easy to transport. They are operated by specially trained nurses and can be connected to a laptop computer in the patient's home. The images from the camera are sent via a secure link to a server that allows a dentist to view the images some time later. The dentist can take snapshots and videos and decide whether the patient requires further treatment and what sort of intervention might be required.

Initially, the project is running at 16 sites in the Languedoc-Roussillon region and 800 patients (100 prisoners, 100 frail people and 600 elderly people) are involved. I am part of a team based at the University of Montpellier II that will provide: (a) an assessment of the economic benefits of tele-dentistry, specifically the business model used for tele-dentistry, and (b) an evaluation of the acceptability of the technology and of the concept of tele-consultations by dentists, nurses and patients.



Journal: Global Business and Organizational Excellence

Global Business and Organizational Excellence is published six times a year by Wiley in collaboration with Kedge Business School. GBOE publishes original applied research and case studies that provide practical guidance on operational issues for global organisations. Articles should stress the practical/applied value of the work rather than the contribution it makes to theory. In general, the theoretical content of the article should be used to provide context for the subject rather than being the principal focus of the article. Articles should not exceed 7,500 words.

The full contents of issue 33(2) are freely available for inspection here: <http://onlinelibrary.wiley.com/doi/10.1002/joe.v33.2/issuetoc>

Detailed author guidelines are available here: [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1932-2062/homepage/ForAuthors.html](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1932-2062/homepage/ForAuthors.html)

Articles should be submitted directly to Chris Kimble: chris.kimble@kedgebs.com

PUBLICATIONS

Bourdon, I., Kimble, C., Tessier, N. (2014, Forthcoming). “An Alternative Approach to Understanding Knowledge Sharing in Online Communities”, *Journal of Business Strategy*.

Kimble, C., Bourdon, I. (2013). “The Link among Information Technology, Business Models, and Strategic Breakthroughs: Examples from Amazon, Dell, and eBay”, *Global Business and Organizational Excellence*, Vol. 33, N°1, p. 58–68.

Kimble, C. (2014). “Electronic Health Records: Cure-All or Chronic Condition?”, *Global Business and Organizational Excellence*, Vol. 33, N°4, p. 63–74.

Milolidakis, G., Akoumianakis, D., Kimble, C., Karadimitriou, N. (2014). “An Excavation-Based Model for Business Intelligence in Social Media”, in J. Wang (Ed.), *Encyclopedia of Business Analytics and Optimization*, p. 897–908, Hershey: IGI Global.

Podinovski V. V., Ismail I., Bouzdine-Chameeva T., Zhang W. (2014). “Combining the assumptions of variable and constant returns to scale in the efficiency evaluation of secondary schools”, *European Journal of Operational Research*, Vol. 239, N°2, Dec. 2014, p. 504–513, <http://dx.doi.org/10.1016/j.ejor.2014.05.016>.

Wang, H., Kimble, C. (2014). Business model innovation in Chinese auto aftersales market. Paper presented at the 22nd GERPISA International Colloquium: Old and new spaces of the automotive industry: towards a new balance? Kyoto, Japan, June, 2014.

DISSERTATIONS/HABILITATIONS

On June 23rd, 2014, Dr. Tatiana Bouzdine-Chameeva, a Senior Professor of Information and Decision Science, defended her second habilitation thesis (HDR) in the field of management sciences at the University of Bordeaux. In this thesis she presented and compared the different decision tools, in particular the mapping methods, employed in operations management, in marketing and in making strategic decisions.



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KEY FACTS

INSTITUTION

- Founded in 1874
- One of the oldest “Grandes Écoles” in France
- 20 programmes
- 160 permanent professors
- EQUIS, AMBA and AACSB accredited

RESEARCH TOPICS

- IS in operations management
- Purchasing and IS
- e-distribution, e-commerce, e-business
- Supply chain and OM decision making and decision analysis
- Organisational learning, knowledge management and competences
- Electronic marketplaces
- Serious games

QUEENSLAND UNIVERSITY OF TECHNOLOGY – SCIENCE AND ENGINEERING FACULTY – INFORMATION SYSTEMS SCHOOL

ABOUT THE INSTITUTION

QUT is one of Australia's premier institutions for Information Systems (IS), as evidenced by its number of under-graduate, post-graduate and PhD students, the international standing of its researchers and the quality, intensity and impact of its industry partnerships. Research informs and inspires teaching, making our courses innovative and our students well prepared for a future of increasingly challenging information environments.

The Information Systems School is one of six schools in the Science and Engineering Faculty at QUT. With more than 10,000 students including 1,000 PhD students and more than 650 researchers working towards new discoveries, the faculty is QUT's realisation of the goal to be a leader in the development of courses and research in the fields of science, technology, engineering and mathematics (STEM).

QUT's Information Systems School has a vision to change the world by connecting processes, information, services and people, and inspire future solutions in this field through excellent research, teaching and provision of services to the profession.

QUT is ranked higher than most universities in Australia and Europe for its research productivity, as measured by publications in the top eight Information Systems journals worldwide (2009–2013). Four of the last eight winners of the best Australian PhD thesis in Information Systems, including the winner in 2014, came from QUT. Our solid reputation has led to the university successfully hosting the most significant regional IS conferences in this discipline (e.g., BPM, ACIS, PACIS) and it has attracted some of the world's leading scholars to QUT.



RESEARCH DISCIPLINES

Research within the School is decomposed into three Disciplines:

- Business Process Management
- Service Sciences
- Information Ecology

The Business Process Management (BPM) Discipline is one of the most influential in the world, and its research is widely quoted and adopted by organisations. Research members have authored and edited leading BPM textbooks and developed core artifacts including the open source process modelling repository APROMORE, the open source workflow environment YAWL and a BPM maturity model that is now adopted globally.

Services Science expertise is diverse and has a dedicated focus on the theoretical foundations, applications, technologies and impacts of services across organisations, industries, ubiquitous computing environments and the Web. Key research focuses on empirical and business-related methodologies, conceptualisation of services, architecture and provisioning of services, service delivery platforms, public/private cloud infrastructure, and mobile and smart device service consumption. QUT aims to develop new models and capabilities for service innovation in complex business eco-systems and connected communities.

Information Ecology investigates understanding, modelling, enhancing and enabling contextual connections between information, people and their environment. It aims to improve how people and enterprises share, comprehend, and effectively use and interact with structured and unstructured information. Binding these investigations are the contextual connections from which meaning is developed from information, whether mediated through systems or interactions with other people, individually or in groups.

In 2014, the IT courses at QUT underwent a redesign and now the School is involved in the following under-graduate and post-graduate courses:

- Bachelor of Information Technology
- Bachelor of Games and Interactive Entertainment
- Master of Information Technology
- Master of Business Process Management
- Master of Information Science

CURRENT RESEARCH PROJECTS

The Information Systems School is hosting several large research initiatives, including:

- Airports of the Future
- Risk-aware Business Process Management
- Cost-aware Business Process Management
- Advanced Process Model Repositories
- Connected Communities
- Innovation Systems

The Information Systems School engages via industry-funded Chairs with selected industry partners. As Chair of Airport Innovation, Associate Professor Alexander Dreiling focusses on the design of a digital strategy and new revenue models uncovered via design-led innovation approaches. As Chair of Retail Innovation, Professor Jan Recker leads a team in developing new ways of identifying innovation potential in retail. A main impact of this initiative in 2014 has been a multi-million dollar savings for Woolworths based on massively improved forecasting algorithms for promotional stocks. At the end of 2014, the School finalised a third Chair, the PwC Chair in Digital Economy, with co-investments from Brisbane Marketing and Queensland State Government.

Further industry-funded projects are related to the deployment of cross-organisational process mining in the insurance sector (partner: Queensland Government), studying the upcoming changes in personal mobility and its implications (Suncorp) and the potential of C2C-relationship management in the finance sector (Bank of Queensland).

PUBLICATIONS

2014 has been another very successful year in terms of publications including a number of books, journal articles in Decision Support Systems, the European Journal of Information Systems, Information Systems, CAIS and Information and Management, among others, and a range of conference papers, including seven accepted ICIS 2014 papers.

We published a number of books, including 'Information Experiences' by Christine Bruce, Helen Partridge, Kate Davis, Hilary Hughes and Ian Stoodley and 'Design-led Innovation' by Cara Wrigley. Furthermore, we published the second edition of the Business Process Management Handbook (co-editors Jan vom Brocke and Michael Rosemann).

Selected journal papers

Schmiedel, T., vom Brocke, J., Recker, J. (2014): Development and Validation of an Instrument to Measure Organizational Cul-

tures' Support of Business Process Management. Information & Management, Vol. 51, No. 1, pp. 43–56.

Tate, Mary, Sedera, Darshana, McLean, Ephraim, & Burton-Jones, Andrew (2014) Information systems success research: the "20-year update?" panel report from PACIS 2011. Communications of the Association for Information Systems, 34, pp. 1235–1246.

H. Leopold, J. Mendling, H.A. Reijers, M. La Rosa. Simplifying Process Model Abstraction: Techniques for Generating Process model Names. Information Systems, Vol. 39, 2014.

Z. Meng and G. Gable: Towards Reconstructing Contribution for Broader Audience: Where is the Impact of Social Simulation Research in the Information Systems Discipline? Proceedings of the International Conference on Information Systems, Auckland (2014).

In addition to these publications, QUT members also made substantial contributions as keynote speakers at global and regional events, including the Gartner BPM Summit (Sydney, Marcello la Rosa), the Russian BPM Conference (Moscow, Michael Rosemann), the Fraunhofer R&D Conference (Stuttgart, Michael Rosemann) and the US Library 2.014 Virtual Conference (Christine Bruce).

Furthermore, QUT was the host of the 2nd Asia-Pacific Conference on Business Process Management in July 2014.

SELECTED DISSERTATIONS

Ayed Saif Alwadein: A Model of Enterprise Architecture Evolution.

Raffaele Conforti: Managing Risk in Process-aware Information Systems.

Elham Sayyad Abdi: Web Professionals: How Do They Experience Information Literacy?

Bevan Koopman: Semantic Search as Inference: Applications in Health Informatics.



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KEY FACTS

INSTITUTION

- Founded in 1989
- 46,000 students
- Information Systems School:
29 researchers, 90 PhD students

RESEARCH TOPICS

- Business process management
- Services sciences
- Information ecology



**Copenhagen
Business School**
HANDELSHØJSKOLEN



ABOUT THE INSTITUTION

The Department of Information Technology Management (ITM) is one of the largest ITM departments in Europe. ITM is a multi-disciplinary department that embraces theories and methods from the fields of information systems, business administration, computer science, organisation studies, political science, economics, sociology, psychology and communication theory. The mission statement of the department is: Co-creating knowledge with enduring consequences through the study of the interrelationships among people, information and technology.

The Association of Information Systems (AIS) is the core community of the department. The AIS community is inclusive and open to all the current research areas of the department. With our journal contributions to the Senior Scholars' Basket of Journals we are ranked number two in Europe. Other communities are also relevant, e.g., human-computer interaction, e-government, organisation studies, learning sciences, and software design and development.

We strive for a high level of collaboration with representatives from industry and society (also called engaged scholarship) while also organising our research to accommodate the fast-moving pace and radical innovation that characterises the IS research field. We achieve this by organising part of our research around themes that address societal or business challenges. The themes are topical, popular, interdisciplinary and dynamic in nature. In addition to the research themes, ITM still maintains the more

traditional research areas for the disciplinary development of its researchers.

The faculty and administrative staff of the department teach primarily within the following degree programmes: Bachelor of Business Administration and Information Systems, Bachelor of Information Management, MSc in Business Administration and Information Systems and MSc in IT (eBusiness).

RESEARCH TOPICS

The Department of IT Management conducts research within the following research areas related to information technology and information systems: Design, Implementation, Use and Exploitation and Information Management.

The research at ITM is organised around a number of cross-disciplinary themes and we cover a number of research areas, like mergers and acquisitions, social media, cashless society, internet of things and open Big Data.

Themes are emergent, topical, interdisciplinary and dynamic in nature. They emerge from bottom-up activities where researchers find that they share a common excitement about a new phenomenon, and encompass several tenured faculty members who meet regularly to discuss a common research phenomenon over a longer period of time.

Example Research Theme: IoT. The group 'Internet of Things' (IoT) has the objective of creating an Internet of People and Societies by creating multi-disciplinary

and cross-disciplinary approaches with researchers, politicians, citizens, NGOs and enterprises pursuing socially productive scenarios in the merging of our physical world and the virtual world.

CURRENT RESEARCH PROJECTS

Cashless Society. The vision behind Cashless Society is to make Denmark the first cashless society in the world. Compared with the rest of the world, the Danish based entirely unique, and the cashless society will only further strengthen Denmark's international competitiveness. The idea of a cashless society leads to a number of issues and challenges that will be explored and investigated. Some of the key research questions are: How does the digitisation of money affect the use and experience of money? How does the digitisation of transactions influence the performance of and preference for different payment systems? How can we design a digitised payment ecosystem? The complexity in the challenges requires us to apply multi-methodological approaches, including anthropological studies, field studies, experiments, and design science, in close collaboration with practice, including the Danish Bankers Association, NETS, Dansk Bank, Cell Point Mobile, IBM, and Innovation Lab.

Digital Piracy. There is almost no hard, independent data on game piracy, across AAA-levels to indie games, despite numerous reports about massive piracy rates reported for all types of games (as high as several hundred percent). The Digital Game Piracy project works in collaboration with international colleagues collecting extensive data about bittorrent activities for hundreds of games, correlating these with geographic, market and game variables to explore the patterns of game piracy across national boundaries. This research will aid the gaming industry by providing an understanding of the dynamics of the market and enable it to cater to it more effectively.

NEXT-TELL. Our vision of the 21st Century classroom is that of a technology- and data-rich environment that helps teachers

and students to use various sources of information generated in the classroom and during homework in pedagogical decision-making. Such an information infrastructure will improve instruction, diagnosis, workflow, and productivity as well as enhancing collaboration and communication among students, teachers, and other stakeholders, especially parents. Teachers in particular will be supported in their function as diagnosticians who have to make decisions constantly and rapidly in a highly dynamic and complex environment. To bring this vision to life, we collaborate on the project NEXT-TELL, an Integrating Project (IP) in the ICT challenge of the 7th framework programme of the European Commission. NEXT-TELL's main objective is to provide, through research and development, computational and methodological support to teachers and students.

3gERP. The enterprise resource planning (ERP) software market is deeply fragmented. For small and medium sized enterprises (SMEs) the number of vendors is around 10,000 globally. With so many options market leadership is difficult, standardisation next to impossible and the achievement of economy of scale not easy. In this context, the 3gERP project aims to develop a standardised, yet highly configurable and flexible, global ERP system for SMEs based on fundamentally new software architecture. This would make implementation and maintenance possible at a fraction of their current cost.

PUBLICATIONS

Uri Gal; Tina Blegind Jensen; Kalle Lyytinen: Identity Orientation, Social Exchange, and Information Technology Use in Interorganizational Collaborations. In: *Organization Science*, Vol. 25, No. 5, 2014, p. 1372-1390

Till Winkler; Carol V. Brown: Horizontal Allocation of Decision Rights for On-Premise Applications and Software-as-a-Service. In: *Journal of Management Information Systems*, Vol. 30, No. 3, 2014, p. 13-48

Ioanna D. Constantiou; Christiane Lehrer;

Thomas Hess: Changing Information Retrieval Behaviours: An Empirical Investigation of Users' Cognitive Processes in the Choice of Location-based Services. In: *European Journal of Information Systems*, Vol. 23, No. 5, 2014, p. 513-528

Mads Bødker; Gregory Gimpel; Jonas Hedman: Time-out/Time-in: The Dynamics of Everyday Experiential Computing Devices. In: *Information Systems Journal*, Vol. 24, No. 2, 2014, p. 143-166

Mari-Klara Stein; Sue Newell; Erica L. Wagner; Robert D. Galliers: Felt Quality of Sociomaterial Relations: Introducing Emotions into Sociomaterial Theorizing. In: *Information and Organization*, Vol. 24, No. 3, 7.2014, p. 156-175

Michel Avital: Constructing the Value of Information Systems Research. In: *Communications of the Association for Information Systems (CAIS)*, Vol. 34, 2.2014, p. 817-822

Annemette Leonhardt Kjærgaard; Tina Blegind Jensen: Using Cognitive Mapping to Represent and Share Users' Interpretations of Technology. In: *Communications of the Association for Information Systems (CAIS)*, Vol. 34, No. 57, 2014, p. 1097-1114

Jannis Kallinikos; Aleksi Aaltonen; Attila Marton: The Ambivalent Ontology of Digital Artifacts. In: *MIS Quarterly*, Vol. 37, No. 2, 6.2013, p. 357-370

Matthias Trier; Judith Molka-Danielsen: Sympathy or Strategy: Social Capital Drivers for Collaborative Contributions to the IS Community. In: *European Journal of Information Systems*, Vol. 22, No. 3, 5.2013, p. 317-335

Xiao Xiao; Christopher B. Califf; Saonee Sarker; Suprateek Sarker: ICT Innovation in Emerging Economies: A Review of the Existing Literature and a Framework for Future Research. In: *Journal of Information Technology*, 2.7.2013.

Karlheinz Kautz; Tina Blegind Jensen: Sociomateriality at the Royal Court of IS: A Jester's Monologue. In: *Information and Organization*, Vol. 23, No. 1, 2013, p. 15-27



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KEY FACTS

INSTITUTION

- 20 tenured faculty
- 16 PhD candidates
- Plus a number of assistants, lecturers, adjuncts, external employees

RESEARCH TOPICS

- Information management
- Social media management
- Social media analytics
- IT in mergers and acquisitions
- IT strategy and organization
- Internet of Things
- Open data, Big Data
- Electronic communication
- Human-computer interaction
- Systems development
- E-Government

UNIVERSITY OF TWENTE – CENTRE FOR TELEMATICS AND INFORMATION TECHNOLOGY

› University of Twente – Centre for Telematics and Information Technology www.utwente.nl/mb/iebis



UNIVERSITEIT TWENTE



IEBIS Department

ABOUT THE INSTITUTION

At the university of Twente, 3,300 scientists and professionals carry out groundbreaking research, bring about socially relevant innovation, and provide inspiring teaching for more than 9,000 students. The University of Twente has also generated more than 700 successful spin-off companies, including well known e-businesses such as Booking.com and Takeaway.com. The university's business park, Kennispark Twente, encourages and assists entrepreneurs to start new companies.

The UT has ICT and Information Systems Research among its focus areas. The Center for Telematics and ICT (CTIT) is the largest ICT research institute in the Netherlands and among the largest in Europe.

RESEARCH TOPICS

The research of CTIT is organised in centres:

- Dependable Systems & Networks (C.DSN)
- Cyber Security and Public Safety
- Interactive Service Robotics
- Green ICT
- Array Technology (CAT)
- Wireless & Sensor Systems (WISE)

- Healthcare Operation Improvement (CHOIR)
- Sustainable Supply Chain Innovation (SSI)
- Tele-monitoring & Coaching
- Service Science

Various departments are joining efforts in these centres to address research challenges in an interdisciplinary way. More information on the centres can be found via www.ctit.nl.

CURRENT RESEARCH PROJECTS

CTIT is active in dozens of research projects financed at the national and European levels and directly by industry. Departments directly related to ERCIS research themes are the IEBIS (Industrial Engineering and Business Information Systems) group and the SCS (Services, Cybersecurity and Safety) research group. They have several current research projects:

The IEBIS group is concerned with studying novel ways of managing business processes and supply chains using innovative techniques such as simulation, (social) data mining, multi-agent coordination and gamification.

The goal of the SCS group is to develop methods and techniques for developing IT-based services that balance service levels with safety and security levels, and to develop methods and techniques that make existing IT-based services more secure.

Selected research projects include:

Catalog – e-business architecture and fulfillment.

BME – A method to support business model engineering.

Social media content analysis – Data-driven service development. Integrating internet and social media content reports with internal log data for service development decisions.

TREsPASS – Methods and tools to analyse and visualise information security risks in dynamic organisations, as well as possible countermeasures.

Optimal Logistics and Patient Preferences in Acute Care (ZonMW) – Goal: To form a scientific foundation for how to reach an optimal process design for the Integrated Emergency Post (IEP), in which the patient is provided with the right care by the right caregiver, with optimal use of resources and without unnecessary delays, while taking patient preferences into account.

SBIC – Shared Business Intelligence Cell – This project aims at designing and validating a joint supply network control tower that is aimed at coordinating maintenance activities for the Dutch army. By sharing information between the Military and their suppliers and using analytics, various optimisations in the business network should be achieved.

SynchromodalIT – this project aims at designing advanced algorithms and business-IT architectures to facilitate dynamic planning of logistics across various modalities.

AWARDS

Researchers of IEBIS and SCS have been successful in winning several research grants funding new projects in the area of security and IT for sustainable logistics.

Daniel Smits, external PhD candidate at The University of Twente, Department of Industrial Engineering and Business Information Systems, won the Best PhD Paper Award at ECIME 2014. Daniel co-authored the paper with his supervisor Jos van Hillegersberg. The paper discusses a way to integrate both hard and soft elements into IT governance.

Chintan Amrit and Remco Bloemen were nominated for a best paper award at the ACM Working Conference on Mining Software Repositories for their paper with Stefan Kuhlmann and Gonzalo Ordóñez-Matamoros on Innovation diffusion in open source software: preliminary analysis of dependency changes in the gentoo portage package database.

PUBLICATIONS

Amrit, C., Daneva, M., Damian, D. (2014) Human factors in software development: On its underlying theories and the value of learning from related disciplines. A guest editorial introduction to the special issue. Information and Software Technology, 56 (12). pp. 1537–1542.

Mes, M., Iacob, M.-E., van Hillegersberg, J. (2014) A distributed barge planning game. In: Frontiers in gaming simulation: 44th International Simulation and Gaming Association Conference, ISAGA 2013 and 17th IFIP WG 5.7 Workshop on Experimental Interactive Learning in Industrial Management, Stockholm, Sweden, June 24–28, 2013. Revised Selected Lecture notes in computer science (8264). Springer, Cham, 214–221.

Spil, T., Klein, R. (2014) Personal health records success; Why Google Health failed and what does that mean for Microsoft Health Vault? In: Forty-seventh HICCS, Waikoloa, Hawaii, 6–9 January 2014, (pp. 2818–2827).

Wieringa, R. (2014) Empirical research methods for technology validation: Scaling up to practice. Journal of systems and software.

Wijnhoven, F., Amrit, C., Dietz, P. (2014) Value-Based File Retention: File Attributes as File Value and Information Waste Indicators. ACM journal of data and information quality, 4 (4)

Wijnhoven, F., Brinkhuis, M. (2014) Internet information triangulation: Design theory and prototype evaluation. Journal of the Association for Information Science and Technology

Folmer, E., van Sinderen, M., Oude Luttikhuis, P. (2014) Enterprise interoperability: information, services and processes for the interoperable economy and society. Information systems and e-business management

DISSERTATIONS

Tauseef Ali successfully defended his doctoral thesis entitled “Biometric Score Calibration for Forensic Face Recognition”.

Rudolf Haraksim successfully defended his doctoral thesis entitled “Validation of Likelihood Ratio Methods used for Forensic Evidence Evaluation: Application in Forensic Fingerprints”.

Arjan Jeckmans successfully defended his doctoral thesis entitled “Cryptographically-enhanced Privacy for Recommender Systems”.

Zornitza Bakalova successfully defended her thesis “Towards Understanding the Value-Creation in Agile Projects”.

Dina Hadžiosmanović successfully defended her doctoral thesis entitled “The Process Matters: Cyber Security in Industrial Control Systems”.

Indu I. Kaveti successfully defended her thesis “Organizing the un-organized? Evidence from Indian Diamond Industry.”

Robin Effing will defend his thesis titled: The social media participation framework: Studying the effects of social media on non-profit communities



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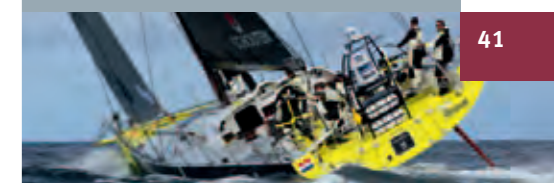
SCS: <http://scs.ewi.utwente.nl>
Head of Department:
Prof. Dr. Roel Wieringa

CTIT: www.ctit.nl
Scientific Director:
Prof. Dr. Jacco van der Pol

KEY FACTS

INSTITUTION

- Centre for Telematics and IT
- One of the largest academic ICT research institutes in Europe
- 375 researchers / 239 fte
- Budget: 29 million Euro





ABOUT THE INSTITUTION

With almost 33,000 students, eleven faculties and about 1,700 academic staff members, the University of Gdansk is the largest institution of a higher education in Poland. It offers the opportunity to study in almost thirty different fields with over a hundred specialisations.

The Department of Business Informatics (BI) of the University of Gdansk is involved in research and teaching in the field of Business Informatics at the bachelor, master and doctoral levels, according to Bologna process standards. The Department is the main contributor to the E-learning Educational Platform of the University of Gdansk.

Moreover, it coordinates the Pomeranian Regional CISCO Academy, conducting numerous courses in educating computer network administrators with international certificates. The master's theses and doctoral dissertations promoted by BI staff have been distinguished in the International Business Informatics Challenge, organised by Dublin University. The Department conducted the Observatory of Pomeranian

Digital Economy. In 1995 the Department founded NTIE – Naukowe Towarzystwo Informatyki Ekonomicznej (Polish Society for Business Informatics Research), and in 2006 PLAIS – the Polish Chapter of the Association for Information Systems. The Department has been a member of European Research Center for Information Systems (ERCIS) from its beginning.

The Department of Business Informatics of the University of Gdansk has cooperated with academic centres of the Baltic Sea Region in the following transbaltic initiatives:

- BSVC – Baltic Sea Virtual Campus, a consortium developing and implementing e-learning courses.
- BIR – Annual International Conference on Perspectives in Business Informatics Research.
- MINE – Doctoral Consortium on Methodologies for Interactive Networked Enterprises, financed by the Nordforsk Council of Ministers (2005–2009).

The Department is involved in the following international and research initiatives:



- Polish Chapter of the Association for Information Systems – PLAIS

- The Annual AIS SIGSAND/PLAIS EuroSymposium on Systems Analysis and Design



- The Annual International Conference on Perspectives in Business Informatics Research – BIR



- NTIE (Naukowe Towarzystwo Informatyki Ekonomicznej) – the Polish Society for Business Informatics Research

RESEARCH TOPICS

Research and competencies cover the following themes:

- Big Data
- Business informatics
- Business processes modeling
- Computer networks
- Computer programming
- Databases
- E-Business
- E-Learning
- Enterprise modelling
- ERP, CRM, SCM, WFM, BI systems
- Information systems development
- IS adoption and diffusion
- IS strategy and ethics
- UML and SysML

CURRENT RESEARCH PROJECTS

- Accomplishment and development of the specialisation of Master's Studies at the Faculty of Management of the University of Gdansk – Informatic Applications in Business (AiB).
- University of Tomorrow Project: Internationalisation of education at the University of Gdansk by co-operation with the University Houston-Downtown (USA): The determinants of the acceptance and adoption of up-to-date academic e-learning.
- IT World Project conducted by Prof. Prashant Palvia from the University of North Carolina, USA, with the planned participation of MIS research groups from 40 countries including Brazil, China, Estonia, Finland, Germany, Ghana, India, Israel, Italy, Malaysia, Pakistan South Africa, Taiwan, Turkey, USA and Poland. They have been selected according to an ERCIS principle – one research team for a given country – enabling the Multi-Kulti approach.

EVENTS

The 7th SIGSAND/PLAIS EuroSymposium 2014, Gdansk, Poland

PUBLICATIONS

Wrycza, S. (ed.) 2014. Proceedings of 7th SIGSAND/PLAIS EuroSymposium 2014, Information Systems: Education, Applications, Research, Series: Lecture Notes in Business Information Processing 193, Springer, Berlin

Wrycza, S., Kuciapski, M. 2014. "Model of Faculty E-Learning Acceptance", Prashant P. (ed.) Conference Proceedings of 15th Annual Global Information Technology Management Association (GITMA), Philadelphia, ISSN 1557-6574, pp 2–11

Maślankowski, J. 2014. "Data Quality Issues Concerning Statistical Data Gathering Supported by Big Data Technology", Communications in Computer and Information Science Vol 424, Springer, Berlin

Wrycza, S., Maślankowski, J. (eds.) 2014. "Proceedings of the SIGSAND/PLAIS EuroSymposium 2014, Volume 2, IS Development, IS Education, ERP/CRM Systems, IT and Globalization", Management and Finance Journal, Gdansk

Wrycza, S., Maślankowski, J., Marcinkowski, B. 2014. "Applications of Implementation Diagrams in System Infrastructure Modeling"

Maślankowski, J. 2014. "Big Data in Theoretical Business Informatics Studies"

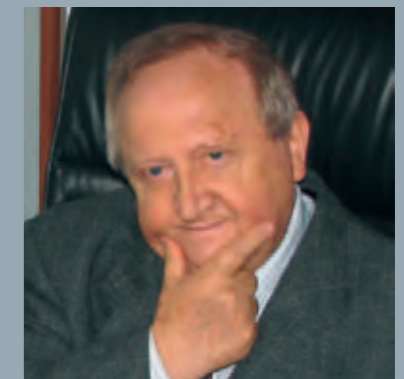
Kuciapski, M. 2014. "Methodology for elaboration and implementation of effective educational simulations systems – towards the priority view"

Gawin, B., Marcinkowski, B. 2014. "Enterprise Processes Simulation: Prerequisites, Data Acquisition Methods and Tool Support"

Buchnowska, D. 2014. "Social CRM for Customer Knowledge Management"

Kralewski, D., Woźniak, M. 2014. "The impact of IT Culture on IT alignment"

Jatkiewicz, P. 2014. "Authorisation conditions in IT systems"



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KEY FACTS

ABOUT THE PERSON

- Head of Department of Business Informatics at the University of Gdansk
- Senior Editor of Information Systems Management Journal (IF=0.35)
- Editorial Review Board of Journal of Database Management (IF=2.121)
- Advisory Board of Information Systems Journal (IF=1.381)
- Editorial Board of Information Systems and e-Business Management (IF=0.605)
- President of PLAIS
- General Chair of SIGSAND/PLAIS EuroSymposium
- Steering Committee of BIR
- Honourable Ambassador of Polish Congresses

INSTITUTION

- Founded in 1967
- 12 faculty and 8 PhD students

KAUNAS UNIVERSITY OF TECHNOLOGY – DEPARTMENT OF INFORMATION SYSTEMS

› Kaunas University of Technology – Department of Information Systems isd.ktu.lt



KTU Information Systems Department at the ICIST 2014 Conference



ABOUT THE INSTITUTION

The Department of Information Systems at Kaunas University of Technology (KTU) was founded in 1993 as a result of more than 20 years of research in the field of information systems (IS). Since then, we have grown to become one of the leading departments in the KTU Faculty of Informatics. In 2012, the Department's Laboratory of Information Systems and Databases Design was restructured into the Centre of Information Systems Design Technologies (headed by Prof. R. Butleris). In 2014, the Centre has been expanded as part of the move to the newly established Integrated Science, Studies and Business Centre (Valley) "Santaka". Being among the leading IS research hubs in Lithuania, the Department has built good relationships with the local IT companies and accumulated valuable research experience with Lithuanian and international partners.

Our academic work is directed towards providing quality education on fundamental and advanced subjects in the field of information systems. The Department is responsible for both first and second cycle study programmes titled "Information Systems" and "Information Systems Engineering" respectively. In 2014, 30 students were accepted to the bachelor's programme, and 21 to the master's. There were also 10 PhD students in the Department.



RESEARCH TOPICS

The KTU Department of Information Systems specialises in topics related to Information Systems Engineering. The majority of our R&D activities are carried out within the following topics:

- Conceptual Modelling, Ontologies and Databases
- Model-driven and Service-oriented Development
- Modelling of Business Processes and Business Rules
- Requirements Specification
- Semantic Web Languages and Technologies
- Enterprise Modelling
- Information Systems Engineering
- Project Management
- Business Analysis and Intelligence
- Knowledge-based Systems
- Model-driven Testing of Information Systems
- Information Systems User Interface and Usability

CURRENT RESEARCH PROJECTS

Here are the main projects the Department staff has been involved in for 2014:

- Business Semantics Based Integration of Business Processes and Business Rules (2013–2015), with No Magic Europe. Financed by EU Structural Funds under the Human Resources Development Programme. Significant progress was made in 2014 as possibilities for automatic and automated transformations between three OMG modelling standards – BPMN, SBVR, and UML – were defined. Working prototypes developed for the MagicDraw CASE tool are now being finalised.
- Research and Development of Internet Technologies and their Infrastructure for Smart Environments of Things and Services (2012–2015). Financed by EU Structural Funds under the Human Resources Development Programme. In 2014, our main contribution to this large scale initiative was the development of the novel model-to-model transformation paradigm. Fully

customisable, drag-and-drop transformations have been demonstrated to work in CASE tools that support various modelling standards via UML profiles.

- Syntactic and Semantic Analysis and Search System for the Lithuanian Internet, Corpus and Public Sector Applications in Lithuanian Language (2012–2014). Financed by EU Structural Funds under the Economy Growth Activities Programme. Project coordinator: Vytautas Magnus University (Lithuania). The core tangible result of the project is the technology allowing the use of structured natural Lithuanian language when searching the Web for answers to questions concerning political, economic, and public administration issues.

- PROMIS: Professional Network of Master's Degrees in Informatics as a Second Competence (2013–2016). Financed by the Tempus Programme and coordinated by the Pierre Mendès-France University, this project is carried out by 5 European universities, 3 enterprises, and 9 beneficiary universities from five Central Asian countries.

- Provision of Youth Consulting and Guidance Services in the Public e-Space (2012–2015). Financed by EU Structural Funds under the Economy Growth Activities Programme. Project coordinator: Youth-Matters Department under the Ministry of Social Security and Labour of Lithuania.

As usual, a number of engineering-centred activities were carried out in cooperation with local enterprises. The most notable undertaking of this nature remains the ongoing development of the National Forest Inventory Information system carried out with the State Forest Survey Centre.

EVENTS

20th International Conference on Information and Software Technologies, ICIST 2014, Druskininkai, Lithuania, October 9–10.

PUBLICATIONS

K. Kapocius, T. Skersys, R. Butleris (2014): The Need for Business Vocabularies in BPM or ISD Related Activities: Survey Based Study // 2014 IEEE International Conference on Computer and Information Technology, IEEE, pp. 622–629.

G. Krisciuniene, L. Nemuraite, R. Butkiene, B. Paradauskas (2014): Lexical ontology model based on SBVR representations // CCIT 2014: proceedings of International Conference on Advances In Computing, Communication and Information Technology, London, UK. Santa Barbara: Institute of Research Engineers and Doctors, pp. 77–81.

J. Karpovic, G. Krisciuniene, L. Ablonskis, L. Nemuraite (2014): The comprehensive mapping of semantics of business vocabulary and business rules (SBVR) to OWL 2 ontologies, Information Technology and Control, T. 43, No. 3, pp. 289–302.

N. Sipaviciene, K. Smilgyte, R. Butleris (2014): Information Systems Requirements Specification and Usage in Test Case Generation // Information and Software Technologies 2014 Conference, Communications in Computer and Information Science, Springer, Vol. 465, pp. 24–34.

T. Skersys, P. Danenas, R. Butleris (2014): Approach for semi-automatic extraction of business vocabularies and rules from use case diagrams // Advances in Enterprise Engineering VIII: 4th Enterprise Engineering Working Conference, EEWC 2014, Cham: Springer, pp. 182–196.

T. Skersys, S. Pavalkis, I. Lagzdinyte-Budnikė (2014): Model-Driven Approach and Implementation of Partial Model-to-Model Transformations in a CASE Tool // Information and Software Technologies 2014 Conference, Communications in Computer and Information Science, Springer, Vol. 465, pp. 260–271.

DISSERTATIONS

Saulius Pavalkis: Model Traceability Based on Derived Properties



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KEY FACTS

INSTITUTION

- Founded in 1993
- Part of the KTU Faculty of Informatics
- More than 20 researchers



ABOUT THE INSTITUTION

The Department of Information Systems (IS) is one of four departments within the Faculty of Social Sciences at the University of Agder (UiA). With 18 researchers (15 in permanent positions and 3 adjunct professors), this is one of the largest IS departments in Norway.

The department offers a three-year bachelor programme in IT and Information Systems, a one year undergraduate study in IT and Information Systems, a two-year master's programme in Information Systems, and a three year PhD programme in Information Systems. The master's programme started in 1999 as the first IS master programme in Norway. The University of Agder also has a Department of ICT, responsible for education and research within computer science and ICT engineering.

The Department of Information Systems contributes actively to the IS community by publishing in leading IS journals, and hosting and participating in international conferences.

RESEARCH TOPICS

The research in the Department of IS is currently organised in two centres and one research group:

Centre on e-Government (CeG) focuses on how ICT can be used to improve government processes and communication with citizens, how citizen participation can be advanced through social networks and how ICT can further develop in the less developed parts

of the world. The Centre is involved in research, teaching and dissemination, and is a leading e-Government research group in Norway.

Centre for Enterprise Systems (CENS) was established as a response to the increasing demand for graduates with enterprise systems skills, from both the IS and business programmes. The Centre has two main goals: to provide hands-on enterprise systems modules in various IS and business courses, and to act as a resource centre for organisations on the acquisition, implementation and use of enterprise systems.

The Research Group on Information Systems Development (ISD) focusses on how information systems and software solutions are developed in and for organisations. In particular, the group views ISD as an interaction between the processes of technical construction of software applications and organisational implementation.

In addition, the Department is part of two multi-disciplinary centres at the University of Agder:

The Centre for e-Health and Health Care Technology focusses on teaching, research, development and testing of new technology

for the health and social sectors. Taking a user perspective, the aim of the centre is to make everyday life easier in today's health society by developing technological solutions such as smart house solutions and mobile home services.

The Centre for Integrated Emergency Management (CIEM) aims at releasing the potential of powerful evolving technologies for integrated emergency preparedness and management. The Centre conducts research on networks, mobile devices, human-centered sensing, social media, sensemaking, visualisation, decision support, collective intelligence and technology adoption.

CURRENT RESEARCH PROJECTS

SmartEMIS (Smart Emergency Management Information Systems) (2012–2015). Project funded by The Competence Development Fund of Southern Norway. The project focusses on how mobile devices such as smart phones, combined with different forms of social media, can be applied to improve information sharing and collaboration in crises. An important goal is to develop solutions and procedures for increased citizen participation in emergency preparedness and management.

Implementation of Welfare Technology. Digital surveillance in municipalities and its impact on innovation of services and organisation (2014–2017). Project funded by the Research Council of Norway. The project consortium consists of the University of Agder, the University College of Buskerud and Vestfold, five municipalities and one business partner. The project aims at researching innovation in business processes and learning needs.

AWARDS

Best Paper Award:

Carl Erik Moe and Maung K. Sein: "Dialectics and contradictions in public procurement of Information Systems", EGOV conference / IFIP 8.5, Dublin, September 1-3, 2014 (published in *Electronic Government*, Springer Berlin Heidelberg, pp. 289–300).

EVENTS

The 6th Kristiansand International Workshop on Information Systems Research (KIWISR) was held in June, with invited participants from IS research and practice. The workshop theme was "A Retrospective look at 15 years of KIWISR: What have we learnt and how has the field of Information Systems changed?"

PUBLICATIONS

Anaya, L. A. (2014). Developing business advantages from the technological possibilities of enterprise information systems. *International Journal of Information Systems and Project Management*, 2(2), 43–56.

Garmann-Johnsen, N. F., Mettler, T. and Sprenger, M. (2014). Service Robotics in Healthcare: A Perspective for Information Systems Researchers? *Proceedings of the 2014 International Conference on Information Systems (ICIS 2014)*, Auckland, New Zealand, December 14–17, 2014.

Iden, J. and Eikebrokk, T. R. (2014). Exploring the relationship between information technology infrastructure library and process management: theory development and empirical testing. *Knowledge and Process Management*.

Iden, J. and Eikebrokk, T. R. (2014). Using the ITIL process reference model for realizing IT governance: An empirical investigation. *Information Systems Management*, Vol. 31, 37–58.

Merschbrock, C. and Munkvold, B.E. (2014). How Is Building Information Modeling Influenced by Project Complexity? A Cross-case Analysis of e-Collaboration Performance in Building Construction. *International Journal of e-Collaboration*, 10(2), 20–39.

Moe, C. E. (2014). Research on Public Procurement of Information Systems: The Need for a Process Approach. *Communications of the Association for Information Systems*, Vol. 34, Article 78.

Sæbbø, Ø., Sein, M. K. and Thapa, D. (2014). Nepal Wireless Networking Project: Building infrastructure in the mountains from ground up. *Communications of the Association for Information Systems*, Vol. 34, Article 11.

Thapa, D. and Sæbbø, Ø. (2014). Exploring the Link between ICT and Development in the Context of Developing Countries: A Literature Review. *The Electronic Journal of Information Systems in Developing Countries (EJISDC)*, 64(1), 1–15.

DISSERTATIONS

Merschbrock, Christoph: Digital collaboration in the wood-based construction industry: deployment of building information modeling

Stendal, Karen: Virtual world affordances for people with lifelong disability

Westin, Soffi: Managing data and information quality in construction engineering: a system design approach



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KEY FACTS

INSTITUTION

- Founded in 1994 (full university status from 2007)
- Approximately 11,000 students and 900 staff

DEPARTMENT OF IS

- 18 researchers
- Approximately 300 bachelor's and master's students in IS
- 12 PhD students

RESEARCH TOPICS

- E-Government and benefits realisation
- E-Participation and e-Democracy
- ICT for development
- Enterprise systems implementation in SMEs
- Business process management and process modelling
- Knowledge management and e-collaboration
- Systems development practice
- Emergency management IS

LULEÅ UNIVERSITY OF TECHNOLOGY – ENABLING ICT – INFORMATION SYSTEMS

› Luleå University of Technology – Enabling ICT – Information Systems www.ltu.se



ABOUT THE INSTITUTION

Luleå University of Technology (Luleå Tekniska Universitet, LTU) is the northernmost university of technology in Scandinavia. The headquarters and the main campus are located at Luleå, Sweden, on the northern coast of the Gulf of Bothnia. In addition, the university has campuses in Kiruna, Skellefteå, Piteå, and Filipstad. In 2014, the university had around 1,700 employees and 19,000 students. Research is typically carried out in close cooperation with industry partners such as Shell, Ericsson, Scania, LKAB, Airbus, Volvo Aero, and IBM, as well as with partners from the public sector. Externally funded research has a turnover of more than 90 million Euro per year.

Information Systems (IS)-related research at LTU relates mainly to the area of Enabling ICT. It is one of nine strategic areas of excellence in research and innovation within the university. Enabling ICT focusses on new ICT-based knowledge and applications related especially to e-health, smart regions, data centres and cloud services. Within Enabling ICT, the research subject of Information Systems involves a faculty of 25 persons and 11 active doctoral students, in 2015. In addition, research closely related to IS is also conducted within other research subjects, such as Industrial Marketing and Mobile and Pervasive Computing. Externally financed projects are often organised and supported by three research centres: the Centre for Distance-Spanning Technology, the Centre for Long-term Digital Preservation, and the eHealth Innovation Centre.



RESEARCH TOPICS AND CURRENT RESEARCH PROJECTS

At LTU, Information Systems is defined as an interdisciplinary research subject, which covers design and use of information technology in relation to people, organisations and societies. Several research projects have recently focussed on Digital Service Innovation, Information Security, Sustainable Data and Information Management, e-Communication, e-Commerce, e-Government and e-Health.

Digital Service Innovation regards services as a driver for individual, organisational, and societal change. To achieve viable change, there needs to be continuous interaction between design and evaluation processes. The research and development challenges include enabling sustainable life through transformative services, creating and maintaining a service innovation culture, enhancing the service experience through co-creation, and assessing the value of services. Examples of contemporary research projects in 2014-15 include SATIN II, which aims to make it easier for end users to develop mobile services (<http://satinproject.se>), EAR-IT, which focusses

on existing challenges in using acoustic sensing in smart cities and smart buildings (<http://ear-it.eu>), and IoT Labs, which will research crowdsourcing to extend IoT (Internet of Things) testbed infrastructure for multi-disciplinary experiments and end-user interactions (<http://www.iotlab.eu>).

Information Security research focusses on the management and behavioural aspects of information security, network and infrastructure security and pedagogical issues of online security education. The research also covers security as a part of organisational practice, security and IT-management practices, business risk practices and technical design of enterprise security controls. LTU has an international online master's programme on information security and the group continuously develops an online information security laboratory for both educational and research purposes. The USEMP project studies how to empower individual data subjects with regard to sharing their personal data, while protecting their privacy by design (<http://www.usemp-project.eu>).



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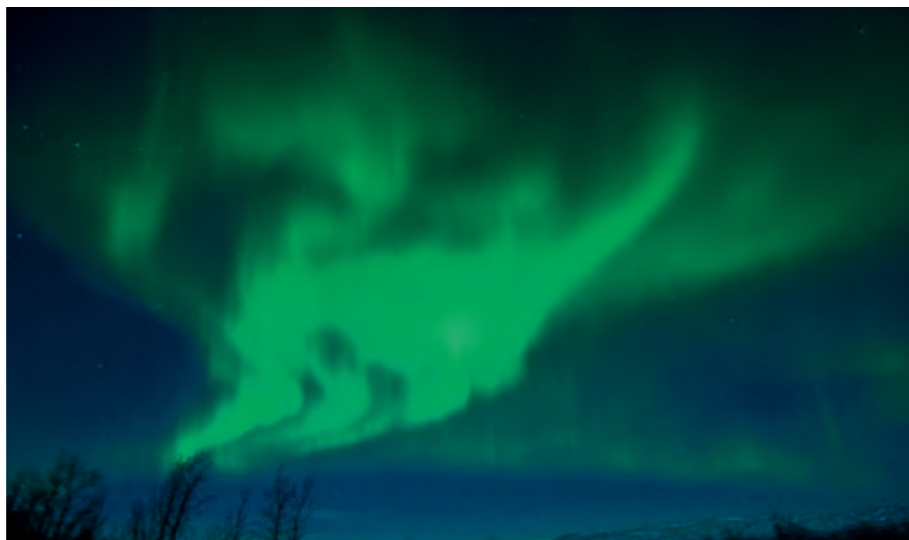
<http://www.ltu.se/research/areas-of-excellence/enabling-ICT?l=en>

KEY FACTS

INSTITUTION

- Founded in 1971
- Approximately 19,000 students and 1,700 staff members
- Within Information Systems: 25 IS researchers, 3 professors
- Enabling ICT: Several IS-related research areas and topics
- International online master's programme in Information Security; approximately 100 students
- Bachelor programmes in Systems Sciences and Digital Service Innovation: approximately 250 students

Sustainable Data and Information Management regards data, information, and knowledge as valuable resources that need to be managed, cultivated and utilised systematically throughout its life-cycle both in enterprises and in the public sector. The research and development challenges include effective knowledge creation and acquisition, processing and storage of Big Data, data and information quality, open data and information distribution, data mining and analytics for decision-making, enterprise content management, digital curation and long-term digital preservation of information beyond governance of individual services and applications. Exemplary ongoing projects include ForgetIT, which focusses on concise digital preservation by combining managed forgetting and contextualised remembering of archived information (<http://www.forgetit-project.eu/>); DURAARK, which focusses on the preservation of 3D architectural data (<http://duraark.eu/>); and D3D, focussing on the reuse of digital three-dimensional objects related to property and cultural heritage. The research area also participates in Cloudberry (<http://www.cloudberry-datacenters.com/>), which is a research and innovation centre aiming at more flexible, resource-efficient and environmentally friendly data centres and clouds.



The fields of e-Communication, e-Commerce and e-Government are studied from a market-oriented perspective, which involves understanding customers' needs, behaviour and attitudes; developing customised services, messages, and strategies; creating customer value; and understanding how customers' behaviour and attitudes can be influenced or changed.

The research team has good experience of multi-disciplinary research projects and of establishing and maintaining relationships with project partners (i.e., companies, organisations and researchers). The key projects include CUP (Customer Focus for Increased Use of Public e-Services), which focused on citizens' needs, behaviours and attitudes with regard to public e-services; EKO (Effective Communication in Crisis), which focussed on developing effective and coordinated communication in crisis situations; and DIGIVÅX (Digital Strategies for Growth in the Hospitality Industry), which aims to develop strategies for the use of digital channels to inform, communicate and interact with tourists.

The strategic research area of Enabling ICT also has several ongoing projects in the fields of e-Health, Mobile Pervasive Computing, and Smart Regions.

PUBLICATIONS

Afrasiabi Rad, Parvaneh; Nilsson, Jörgen; Päivärinta, Tero (2014). Administration of Digital Preservation Services in the Cloud over Time: Design Issues and Challenges for Organizations. In Proceedings of the International Conference on Cloud Security Management (ICCSM). Reading, UK, pp. 1–8.

Andersson, Ingemar; Lindqvist, Göran; Randers, Frode (2014). Preservation Services Planning: A Decision Support Framework. In Proceedings of the International Conference on Cloud Security Management (ICCSM). Reading, UK, pp. 9–17.

Awad, Ali; Hassanien A.E. (2014). Impact of Some Biometric Modalities on Forensic Science. In Computational Intelligence in Digital Forensics: Forensic Investigation and Applications. Studies in Computational Intelligence 555. Springer, pp. 47–62.

Bergvall-Kåreborn, Birgitta; Howcroft, Debra (2014). Persistent Problems and Practices in Information Systems Development: A Study of Mobile Applications Development and Distribution. Information Systems Journal 24(5), 425–444.

Bergvall-Kåreborn, Birgitta; Howcroft, Debra; Ståhlbröst, Anna (2014). Disregarding History: Contemporary IS Contexts and Participatory Design. Communications of the AIS 34(1), 1319–1332.

Charif, Bilal; Awad, Ali (2014). Business and Government Organizations' Adoption of Cloud Computing. In Intelligent Data Engineering and Automated Learning – IDEAL 2014: 15th International Conference, Lecture Notes in Computer Science 8669. Springer, pp. 492–501.

Edzén, Svante (2014). Table-top Exercises for Emergency Management: Tame Solutions for Wicked Problems. In Proceedings of the 47th Annual Hawaii International Conference on System Sciences (HICSS). IEEE.

Harnesk, Dan (Dec 2013). Collective IT Artifacts: Toward Inclusive Crisis Infrastructures. Journal of Information Technology Theory and Application (JITTA) 14(4), 27–48.

Iqbal, Sarfraz; Thapa, Devinder; Awad, Ali Ismail; Päivärinta, Tero (2015). Conceptual Model of Online Pedagogical Information Security Laboratory: Toward an Ensemble Artifact. In Proceedings of the 48th Annual Hawaii International Conference on System Sciences (HICSS). IEEE.

Karasti, Helena (2013). Reflections on 25 Years of Ethnography in CSCW. Computer Supported Cooperative Work 22(4-6), 373–423.

Lassinantti, Josefín; Bergvall-Kåreborn, Birgitta; Ståhlbröst, Anna (2014). Shaping Local Open Data Initiatives: Politics and Implications. Journal of Theoretical and Applied Electronic Commerce Research 9(2), 17–33.

Moe, Carl Erik; Päivärinta, Tero (Dec 2013). Challenges in Information Systems Procurement in the Public Sector. Electronic Journal of e-Government 11(1), 308–323.

Padyab, Ali; Päivärinta, Tero; Harnesk, Dan (2014/15). Genre-Based Approach to Analyzing Information and Knowledge Security Risks. (To appear in) International Journal of Knowledge Management.

Runardotter, Mari; Holst, Marita (2014). Views on Energy Efficiency: Findings from the CASSANDRA Project. In 20th International ICE Conference on Engineering, Technology and Innovation (ICE). IEEE.

Sattari, S. & Wallström, Å. (2013). Tourism websites in the Middle East – readable or not? International Journal of Leisure and Tourism Marketing 3(3), 201–215.

Styvén, M.E., Wallström, Å., Engström, A. & Salehi-Sangari, E. (forthcoming). To Use or Not to Use: Road Bumps for Citizens' Adoption of e-Services. Systems, Signs & Actions, Special issue on “Government – citizen communication through the web”.

Sæbø, Øystein; Sein, Maung; Thapa, Devinder (2014). Nepal Wireless Networking Project: Building Infrastructure in the Mountains from Ground up. Communications of the AIS 34.

Thapa, Devinder; Harnesk, Dan (2014). Rethinking the Information Security Risk Practices: A Critical Social Theory Perspective. In Proceedings of the 47th Annual Hawaii International Conference on System Sciences (HICSS). IEEE.

Thapa, Devinder; Sæbø, Øystein (2014). Exploring the Link between ICT and Development in the Context of Developing Countries: A Literature Review. Electronic Journal of Information Systems in Developing Countries 64.

Wallström, Å., Engström, A., Styvén, M.E. & Salehi-Sangari, E. (2013). From Crisis to Control – All about Communication? 42nd AMS Annual Conference, Monterey, USA.



RESEARCH TOPICS

- Digital service innovation
- Information security
- Sustainable data and information management
- Information and communication technologies for development (ICT4D)
- Information and knowledge infrastructures
- IT/IS-related development and management practices
- e-Health, e-Government, e-Communication, e-Commerce



INFORMATION SYSTEMS RESEARCH AND TEACHING AT MBS AND THE UNIVERSITY OF MANCHESTER

The Information Systems research group at Manchester Business School is comprised of three main areas: digital strategy; decision and cognitive sciences; and service systems. The digital strategy group continue to pursue a diverse research agenda centred on the strategic potential and consequences of new forms of digital technology in a business context, whether this is an organisation, a group of individuals, or a global network. The decision and cognitive sciences group are continuing to grow their MSc business analytics course, which is very popular with students who wish to develop management careers and exploit quantitative and technical approaches to business problems. Business and industrial partners, including Shell and Vodafone, have also warmly welcomed the new course. The service systems group focuses on two main areas, business intelligence and software services, and are involved in several high profile EU research grants, for example Adaptive Production Management and ECO2 clouds. Their industrial partners include Airbus, EADS and Atos. Notable publications and conference presentations include: Dr Liwei Liu presented the paper “Using Recommender Systems to Assist in Intelligent Service Composition” at the IEEE International Service Computing Conference in Alaska, US.



MBS IS researchers collaborate with other digital centres of excellence within the University of Manchester, notably Computer Science, and the National Centre of Text Mining (NaCTeM), the world’s first publicly funded text mining centre. NaCTeM has been particularly successful in attracting research funding and is participating in the Big Mechanism programme of the Defense Advanced Research Projects Agency (DARPA), working towards optimised cancer drug discovery based on patient case reports and scientific literature. As part of another effort, the Evidence-based Public Health project funded by the Medical Research Council, text-mining methods are being applied to the screening and searching of public health reviews.

RESEARCH COLLABORATION BETWEEN MBS AND UNIVERSITY OF MÜNSTER

Julia Jacobs has been awarded funding to pursue doctoral studies in online consumer behaviour using panel data. The research is supported by the Fonds National de la Recherche, Luxembourg (7842603). Stefan Klein from Münster and Chris Holland from MBS are supervising the research. Initial results concerning consumer search patterns and industry concentration in a paper titled “An Analysis of Consumer Search Behaviour in the US and Germany using Online Panel Data” were presented at the Academy of Management conference in Philadelphia, 2014.



RESEARCH PROFILE

Information Extraction using Text Mining in the Pharmaceutical Industry

Dr. Riza Batista-Navarro completed her dissertation on Information Extraction from Pharmaceutical Chemistry Literature in March 2014. She contributed to NaCTeM’s successful participation in each of the 2010 and 2013 editions of the BioCreative challenge, a community-wide effort for advancing and evaluating biomedical text mining methods. In the latter edition, her work figured in NaCTeM’s top performing systems for Comparative Toxicogenomics Database curation and Chemical Document Indexing. Now a postdoctoral researcher at NaCTeM, Riza is applying and expanding her expertise on information extraction while working on the Mining Biodiversity and Big Mechanism projects.

RECENT IS PUBLICATIONS AT MBS

Azadegan, Aida, Papamichail, K Nadia, and Sampaio, Pedro. “Applying collaborative process design to user requirements elicitation: A case study.” *Computers in Industry* 64, no. 7 (2013): 798–812.

Blackman, I.D.; Holland, C.P.; Westcott, T. “Motorola’s global financial supply chain strategy.” *Supply Chain Management: An International Journal* (2013)

Karimi, S., N. Papamichail and C.P. Holland (2014), “Purchase Decision Processes in the Internet Age”, in F. Dargam et al. (Eds.): *EWG-DSS 2013, LNBIP 184*, pp. 57–66. Springer International Publishing Switzerland. DOI: 10.1007/978-3-319-11364-7_6

Keeling KA, Keeling DI and McGoldrick PJ. “Retail relationships in a digital age.” *Journal of Business Research* 66, no. 7 (2013): 847–855.

Liwei Liu, César A. Marín, Nikolay Mehandjiev “Using Recommender Systems to Assist in Intelligent Service Composition” (SCC2014-4088) (University of Manchester, United Kingdom)

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KEY FACTS

INSTITUTION

- 7 senior members of staff
- 12 researchers
- 11 PhD and DBA students
- Several visiting faculty and researchers

RESEARCH TOPICS

- Online consumer behaviour
- Social media and Web 2.0 in international supply chains
- Social media platforms for SMEs in Europe and the US
- Online consumer behaviour in tourism and airline markets
- Economic models of digital strategy
- Online panel data to measure consumer sentiment
- Emergency management systems
- Decision analytic tools
- Text mining applications in business and science
- Service systems and software development



ABOUT THE INSTITUTION

The Faculty of Organizational Sciences is a founding member of the University of Maribor. It has been involved in research and education in the organisational and informational sciences for more than 50 years. Today it provides Bologna programmes of Information Systems, Human Resource and Educational Systems, Business and Work Systems. During this period, the Faculty has taught a large number of graduates who have pursued employment in the manufacturing and service industries as well as governmental and educational institutions. The research area of the Faculty of Organizational Sciences covers complex dynamic management systems, covering aspects of human resources, information systems, business processes and general management. Research is organised in many laboratories and in the eCenter. All are involved in research projects, prototyping, consulting, education and training at national and international level. Their activities have been organised and are run following the LivingLab approach, with a strong involvement of business and government organisations, users, IT providers and universities. The resulting eLivingLab is the Slovenian founding member of European Network of Living Labs (ENoLL).

The Faculty has a wide range of experience from many EU, national and industry projects. It is also very active in Living Lab

and cross-border regional development initiatives. The Faculty has established connections with numerous institutes, faculties and universities around the world and strives to enhance its internationally renowned reputation. Bilateral cooperation has occurred in several forms, including the exchange of higher education professors, participation in various research projects, and student exchange.

RESEARCH TOPICS

The significant focus is on the implementation of the newest ICT and their impact on new business model development, and the increasing effectiveness and efficiency of business and government organisations, ICT industry, universities and society as a whole.

Research topics at the Faculty of Organizational Sciences:

- Management of Information systems
- eCommerce, eBusiness
- ERP systems
- Inter-organisational systems
- eGovernment
- Mobile commerce
- eHealth and well-being
- eBusiness models
- Cloud computing
- Internet of Things (IoT)
- Enterprise 2.0
- Social media, Web 2.0, eCollaboration
- eLearning 2.0 & eEducation
- Business processes management

- elnnovations, open innovation, living labs
- Decision support systems
- Simulation systems and models
- Knowledge management
- Organisational learning
- Business intelligence
- Bid data, open data

CURRENT RESEARCH PROJECTS

European Projects:

CentraLab – Central European Living Lab for Territorial Innovation, Programme: CENTRAL EUROPE PROGRAMME, www.centralivinglab.eu

CO-Efficient – Collaborative framework for energy efficient SME systems Programme: Program Med – Transnational territorial cooperation

GEPSUS – Geographical Information Processing for Environmental Pollution-Related Security within Urban Scale Environments, Programme: NATO, www.graphitech.it/gepsus/

ESSENCE – Easy eServices to Shape and Empower SME Networks in Central Europe, Programme: CENTRAL EUROPE Programme 2011–2014

Bilateral projects:

Manpower control strategy determination with selfadapted evolutionary and biologically inspired algorithms
Programme: Bilateral project SI-RU

Development of green ports in supply chains based on modelling and simulation methods (Case studies of Slovenian and Montenegrin ports: Koper, Bar and Kotor)
Programme: Bilateral project SI-MNE

PUBLICATIONS

PUCIHAR, A., MALEŠIČ, A., LENART, G., KLJAJIČ BORŠTNAR, M.: User-centered design of a web-based platform for the sustainable development of tourism services in a living lab context. V: CAPORARELLO, Leonardo (ur.), DI MARTINO, Beniamino (ur.), MARTINEZ, Marcello (ur.). Smart organizations and smart artifacts: fostering interaction between people, technologies and processes, (Lecture Notes in Information Systems and Organisation, ISSN 2195-4976, 7). Cham: Springer, cop. 2014, str. 251–266.

DRAGOVIČ, B., ŠKURIČ, M., KOFJAČ, D.: A proposed simulation-based operational policy for cruise ships in the port of Kotor. Maritime policy and management, ISSN 0308-8839, 2014, in press.

KLJAJIČ BORŠTNAR, M., PUCIHAR, A.: Impacts of the implementation of a project management information system – a case study of a small R&D company. Organizacija, ISSN 1318-5454, 2014, let. 47, št. 1, str. 14–23.

ROZMAN, Č., ŠKRABA, A., PAŽEK, K., KLJAJIČ, M.: The development of sugar beet production and processing simulation model – a system dynamics approach to support decision-making processes. Organizacija, ISSN 1318-5454, May 2014, vol. 47, no. 2, str. 99–105.

MALETIČ, M., MALETIČ, D., DAHLGAARD, J., DAHLGAARD-PARK, S.-M., GOMIŠČEK, B.: The relationship between sustainability-oriented innovation practices and organizational performance: empirical evidence from Slovenian organizations. Organizacija, ISSN 1318-5454, 2014, let. 47, št. 1, str. 3–13.

MALETIČ, D., MALETIČ, M., AL-NAJJAR, B., GOMIŠČEK, B.: The role of maintenance in improving company's competitiveness and profitability: a case study in a textile company. Journal of manufacturing technology management, ISSN 1741-038X, 2014, vol. 25, no. 4, str. 441–456.

MALETIČ, D., MALETIČ, M., GOMIŠČEK, B.: The impact of quality management orientation on maintenance performance. International Journal of Production Research, ISSN 0020-7543, 2014, vol. 52, no. 6, str. 1744–1754.

OGRIS, V., KRISTAN, T., KOFJAČ, D.: Modified adaptive evolutionary algorithm for solving JSSP problems. WSEAS transactions on information science and applications, ISSN 2224-3402. [Online ed.], 2014, vol. 11, str. 149-159.

DISSERTATIONS/HABILITATIONS

Dissertations in progress:

Marjan Breljih: A Model of Quantitative and Qualitative Decision Knowledge Modelling Integration, supervisor: Uroš Rajkovič, assistant professor

Marko Bohanec: Decreasing sales forecast error by leveraging machine learning technics for B2B opportunity-based forecasting, supervisor: Mirjana Kljajič Borštnar, assistant professor

Katarina Hribernik: Integrated data model to support sustainable management of mineral resources, supervisor: Robert Leskovar, professor

Matjaž Kragelj: Development of methodology for automatic classification of electronic publications in Universal Decimal Classification – UDK, supervisor: Mirjana Kljajič Borštnar, assistant professor

Marjeta Marolt: Model of factors influencing social CRM adoption in SMEs, supervisor: Andreja Pucihar, assistant professor

Anka Mohorič Kenda: The continuous improvement of model of health care quality indicators with feedback information from e-complaints system, supervisor: Robert Leskovar, Professor

Vid Ogris: Self-adaptive evolutionary algorithm for production scheduling in a dynamic environment, supervisor: Davorin Kofjač, assistant professor

Finished dissertations in 2014

Peter Benedik: Model of nursing process supported by expert system, supervisor: Uroš Rajkovič, assistant professor

Kristina Bogataj: Vpliv dejavnikov poslovnega modela ponudnika na uvedbo računalništva v oblaku/Impact of providers business model factors on cloud computing adoption, supervisor: Andreja Pucihar, assistant professor

Borut Čampelj: Self-assessment model of level of school informatisation, supervisor: Vladislav Rajkovič, Professor emeritus, Eva Jereb, Professor

Igor Korelič: Adaptivna predstavitev večrazsežnega podatkovnega modela z uporabo metode večkriterijskega odločanja/ Adaptive presentation of Multidimensional Data Model Using MultiCriteria Decision Analysis, supervisors: Vladislav Rajkovič, Professor emeritus, Mirjana Kljajič Borštnar, assistant professor



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KEY FACTS

INSTITUTION: FACULTY OF ORGANIZATIONAL SCIENCES
- 64 employees
- 2,000 students



HIGHER SCHOOL OF ECONOMICS – MOSCOW

> Higher School of Economics – Moscow www.bi.hse.ru



HIGHER SCHOOL OF ECONOMICS MOSCOW

The Higher School of Economics (HSE) is a research university that carries out its mission through research, instruction, design, expert analysis, as well as social and cultural activities based on international academic and organisational standards. We see ourselves as part of the global academic community and believe that international partnerships and interaction among global universities are key elements of its advancement. The basis of its activity lies in theoretical and empirical research and the spread of knowledge. Without compromising the quality of research or limiting the teaching of basic scientific knowledge, the University strives to make a practical contribution to building a new Russia.

The university is a team of researchers, staff members and students. University employees processes internal commitment to maintaining high academic standards in their activities, and strive to provide the most favourable conditions for each of our members to develop.

The HSE is 4 campuses, 3000 faculty members, 20 000 students, 35000 alumni.

Founded in 2002, the HSE Faculty of Business Informatics was created with the active participation of leading Russian and multinational companies and is a pioneer in the new educational discipline of Business Informatics, which combines information technology (IT), informatics and management concepts. The faculty aims to attract talented and motivated young people to form Russia's future entrepreneurial and administrative elite professionals in business informatics.



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KEY FACTS

RESEARCH TOPICS:

- Business value of enterprise IS
- Industry 4.0
- PLM and production processes

HIGHER SCHOOL OF ECONOMICS – NIZHNY NOVGOROD

> Higher School of Economics – Nizhny Novgorod <http://nnov.hse.ru/bipm>



ABOUT THE INSTITUTION

The Higher School of Economics in Nizhny Novgorod (HSE NN) was founded in 1996. The main educational activities of the Faculty of Business Informatics and Applied Mathematics (BIAM) of the HSE NN are related to modern enterprise organisation, enterprise architecture, business mathematical and computer modelling. Two laboratories TAPRADESS (Theory and Practice of Decision Support Systems) and LATNA (Laboratory of Algorithms and Technologies for Networks Analysis) are the research units of the Faculty BIAM. In 2014 the Department of Fundamental Mathematics was opened.

RESEARCH TOPICS

The research of the Faculty BIAM focusses on the following directions:

- Cognitive science – the development of methods and techniques of receiving, processing, storing, using and managing professional knowledge
- Situational Modelling – multidimensional modelling of the behaviour and decision making processes of individual and collective agents in complex distributed systems.
- Decision Making Analysis: basic approaches for solving important problems like the reengineering of companies using advanced technologies of e-business and a consistent set of formal process-oriented models. This result allows us to effectively conduct a systematic analysis of economic and technological factors affecting the sustainable development of business and e-commerce.



Gubin Yuri / Shutterstock.com

- Original ways of formalising knowledge that is based on ontological engineering, and that is supplemented by practical methods of integration and verification of complex corporate service oriented systems.

- New mathematical models and multi-agent optimisation algorithms in distributed service-oriented systems applicable to different domains (transport, planning, training activities); the result defines new approaches to the creation and use of intelligent decision support systems in the modern service-oriented economy.

- Axiomatic approach to non-compensatory aggregation (decision making rules) and axiomatic approach to the general measure of power (power indices) in a voting body.

CURRENT RESEARCH PROJECTS

Knowledge technologies for improving multi-modal logistics operations in seaports
The project team is performing an analysis of business processes and information technologies in the framework of modern port logistics operations. The goal of the project is to develop high-level models of adaptive business processes and distributed software implementations using multi-agent technologies. The ontology-based specifications and principles of holonic self-organisation are being explored at the theoretical level, and JESS multi-agent platform is used for software prototyping. The project is conducted in co-operation with INSA-Rouen (France).

Development of the methodology for Value Assessment of SOA-based IS Projects

This research is aimed at adopting existing IT project assessment methods for measuring the value of SOA-based IS projects. The research considers the fact that SOA-based IS deployment and evolution could be split into separate flows, one per service.

AWARDS

In September 2014, LATNA Laboratory received a Russian Science Foundation grant for the project Clustering and Search Techniques in Large Scale Networks.

SELECTED PUBLICATIONS

Satunin S., Babkin E. A multi-agent approach to Intelligent Transportation Systems modelling with combinatorial auctions, Expert Systems with Applications, Volume 41, Issue 15, 1 November 2014, Pages 6622–6633

Vizgunov, B. Goldengorin, V. Kalyagin, A. Koldanov, P. Koldanov, P. M. Pardalos, Network approach for the Russian stock market, Computational Management Science January 2014, Volume 11, Issue 1–2, pp 45–55

Aseeva N.V., Gromov E.M., Malomed B.A., Tyutin V.V. Soliton dynamics in an extended nonlinear Schrödinger equation with inhomogeneous dispersion and self-phase modulation // Communications in Mathematical Analysis. 2014. Vol. 17

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STEVENS INSTITUTE OF TECHNOLOGY – HOWE SCHOOL OF TECHNOLOGY MANAGEMENT

› Stevens Institute of Technology – Howe School of Technology Management www.stevens.edu/howe



STEVENS
Institute of Technology

ABOUT THE INSTITUTION

Founded in 1870, Stevens Institute of Technology is a premier private university focused on research and entrepreneurship in technology-related fields. Located across the Hudson River from Manhattan in Hoboken, New Jersey, Stevens has a population of 3,700 graduate (master's and PhD) students and 2,300 undergraduate students. Stevens is committed to exploring the frontiers of engineering, science, and management through integrative research and education programmes. Stevens' three schools and one college support the mission of the Institute:

The Charles V. Schaefer, Jr. School of Engineering and Science, the Wesley J. Howe School of Technology Management, the School of Systems and Enterprises as well as the College of Arts and Letters. Businessweek ranked Stevens in the top 3% of US universities based on student return on investment. Notable graduates include Frederick Winslow Taylor, the father of scientific management, Henri Gantt, whose GANTT chart is a staple in most project managers' toolkits, and Alfred Fielding, the inventor of Bubble Wrap®.

The School of Technology Management has 40 full-time faculty and 200 undergraduates, 1,200 MS students, 120 MBA students, 80 executive master's students, 25 PhD students and numerous non-degree graduate and executive programme. Within the school, the Information Systems group is among the largest graduate programme in the US, with a mix of evening and weekend classes as well as online course offerings to students around the globe.

RESEARCH TOPICS

Within the School of Technology Management, two IS-related research groups operate in the areas of Business Process Innovation and Decision Technologies.

The **Center for Decision Technologies (CDT)** researches the networks that are around us and in us, because understanding these networks can assist in building technologies that augment decision making in a variety of domains. The Center helps decision makers integrate information through training and visualisation. This work combines perspectives from information sys-

tems, cognitive psychology, social network analysis, and various computational sciences. The center focusses on two main areas:

Understanding the dynamics of social networks. The ubiquity of networked technologies and the increase in location-aware mobile devices enable new forms of research that reveal the emergence of ideas. These ideas are generated and shared within communities, and leave electronic traces as they spread between people situated across time and space. Within this area of research, CDT members are looking at data from websites such as Digg and Twitter. CDT members are also looking at the ways communication within and between social networks can be used to predict political, cultural, and economic phenomena. In order to help decision makers identify trends in social network information streams, CDT members are exploring new ways of visualising data.



Improving the design of information systems. Systems are difficult to design, and little is understood about how to encourage the creative leaps that lead to simple but powerful designs. Specifically, CDT members are looking at how diagrams, gesture, and language interact in the design process.

The **Center for Business Process Innovation (CEBPI)** researches how process innovation improves organisational performance, and how business process technologies can be better managed in organisations. CEBPI hosts a state-of-the-art BPM technology lab with different commercial and open source BPM tools, and provides executive education on process innovation, a graduate certificate on BPM and Service Innovation, as well as courses to build business process management skills for the undergraduate Business & Technology programme at Stevens. CEBPI hosted the 2010 International Conference on Business Process Management and conducts research in two areas:

Semantic Enterprise Architecture. Enterprise Architecture (EA) helps stakeholders understand, manage, and/or change organisations and their technical infrastructure. EA facets are typically organised according to the views they describe, such as process, data, rules and organisation models. For organisations that engage in large architecture projects, a systematic organisation of the architecture content is essential. To date, this has meant choosing either a single modelling framework and language, or sticking to a particular architecture tool. Semantic Enterprise Architecture uses techniques born of the Semantic Web efforts to better understand and analyse the information generated in Enterprise Architecture projects, irrespective of the tool or method used.

Emergent Processes in Standardisation Organisations. Standards organisations produce specifications that regulate many aspects of commerce and private life – from the way we connect peripherals to our laptop to the way health insurers and hospitals share information. While the adoption of standards has been subject to some scrutiny, the development of standards has received much less attention. CEBPI members are studying the collaboration patterns of standard makers in the development of new Web standards. We seek to explain how standards makers make decisions, and factors affect the effectiveness of the standardisation process.



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KEY FACTS

INSTITUTION

- 40 full-time faculty
- 200 undergraduate students
- 1,320 master's and MBA students
- 25 PhD students

RESEARCH TOPICS

- Semantic enterprise architecture
- Standardisation development
- Information systems design
- Social network dynamics
- Business intelligence and analytics
- Process innovation

AWARDS

- Ranked in the top 100 among US universities (US News & World Report)
- Ranked in the top 3% for student ROI for US universities (Businessweek)
- Hoboken ranked 12th-best college town in the United States (Princeton Review)
- Stevens WebCampus platform

CHARLES UNIVERSITY IN PRAGUE – FACULTY OF MATHEMATICS AND PHYSICS – DEPARTMENT OF SOFTWARE ENGINEERING



ABOUT THE INSTITUTION

The natural sciences have been a part of research teaching at Charles University since its founding in 1348.

The Faculty of Mathematics and Physics was created by separating a part of the Faculty of Natural Sciences on 1 September 1952. Now, it is composed of three schools: the School of Physics, the School of Mathematics and the School of Computer Science.

The School of Computer Science in the Faculty of Mathematics and Physics includes seven prestigious teaching and scientific workplaces. The quality of their graduates is widely recognised. Among them are a number of top experts working as computer programme developers and technological innovators. They are also successful as entrepreneurs. Members of the School of Computer Science achieve outstanding scientific results in discrete mathematics, especially in graph theory and its application in intelligent systems, optimisation, programming methods, semantics and building large software systems, processing natural language and many others.

The Department of Software Engineering is focused on research and teaching in the areas of database systems, semantic web, similarity search, XML technologies, parallel computing, Big Data, and e-science.

RESEARCH TOPICS

There are three research groups in the department:

Similarity RETrieval Research Group (SiRet) <http://siret.ms.mff.cuni.cz/>

SiRet, founded in 2006, deals with database methods for efficient and effective

similarity search in databases of complex unstructured objects. In particular, SRG is interested in three areas – general methods of indexing similarity (metric and non-metric spaces), biological applications of the similarity search, and indexing image databases for content-based retrieval.

XML and Web Engineering Research Group (XRG) <http://www.ksi.mff.cuni.cz/xrg/>

XRG focusses on XML and Web technologies and their exploitation, service-oriented architectures (design, implementation, management), evolution, change management

and adaptability of applications, efficient processing of graph data (XML, RDF, linked data), ontologies, Web 2.0, and semantic web services. Recently, we have extended our focus to Linked Data research, dataset creation, graph databases and data provenance as a part of the Opendata.cz initiative.

Parallel Architectures/Algorithms/Applications Research Group (PARG) <http://www.ksi.mff.cuni.cz/parg/>

The PARG was officially founded in 2013; however, the individual research of the members began much earlier. It gathers researchers and PhD students from the Department of Software Engineering. The PARG research activities and topics of interest include multi-core CPUs and NUMA servers, many-core GPUs and GPGPU computing, emerging parallel architectures (Intel MIC, Parallela/Epiphany), distributed computing on tightly coupled clusters, parallel data processing and concurrency in database systems, languages (and compilers) for parallel processing.

CURRENT RESEARCH PROJECTS

The department members are involved in a number of research projects funded by the Czech Science Foundation, the Grant Agency of Charles University, and a number of international projects. The projects are the following: NoSQL-Net – Managing Linked Data in NoSQL Stores under Schema Evolution, Intelligent library – INTLIB, Highly Scalable Parallel and Distributed Methods of Data Processing in e-Science, Non-Metric Similarity Searching in Very Large Complex Databases.

PUBLICATIONS

Baqasah A., Pardede E., Holubová I., Rahayu W.: XS-Diff: XML Schema change detection algorithm, in International Journal of Web and Grid Services, ISSN: 1741-1106, 2014

Čermák M., Zavoral F.: Achieving High Availability in D-Box, in DBKDA 2014 The Sixth International Conference on Advances in Databases, Knowledge, and Data Applications, Chamonia, IARIA, ISBN: 978-1-61208-334-6, pp. 92–97, 2014

Falt Z., Bednárek D., Kruliš M., Yaghub J., Zavoral F.: Bobolang – A Language for Parallel Streaming Applications, in Proceedings of the 23rd International ACM Symposium on High-Performance Parallel and Distributed Computing, Vancouver, ACM, ISBN: 978-1-4503-2749-7, pp. 311–314, 2014

Polák M., Chytil M., Jakubec K., Kudelas V., Piják P., Nečaský M., Holubová I.: Data and Query Adaptation using DaemonX, in Computing and Informatics Journal, Vol. 2014, ISSN: 1335–9150, 2014

Chytil M., Polák M., Holubová I., Nečaský M.: Evolution of a Relational Schema and its Impact on SQL Queries, in Proceedings of the 7th International Symposium on Intelligent Distributed Computing, IDC 2013, Prague, Czech Republic, Springer International Publishing, Prague, Springer, pp. 5–15, 2014

Malý J., Nečaský M.: Model-driven Approach to Modeling and Validating Integrity Constraints for XML with OCL and Schematron, in Information Systems Frontiers, Vol. 16, Num. 1, ISSN: 1387-3326, pp. 1–35, 2014

Nečaský M., Klímek J., Mynarz J., Knap T., Svátek V., Stárka J.: Linked data support for filing public contracts, in Computers in Industry, Vol. 2014, ISSN: 0166-3615, 2014

DISSERTATIONS

Tomáš Barto, Non-metric similarity indexing, 2014

Zbyněk Falt, Towards Efficient Parallel Data Processing on Modern Hardware

EVENTS

NoSQL 2014, 1st International Workshop on NoSQL Databases and Linked Data Applications, September 1–5, 2014

IWCSN 2014, International Workshop on Computational Social Networks, October 12, 2014



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KEY FACTS

INSTITUTION

- University founded in 1348.
- Faculty founded in 1952.
- Department founded in 1993.
- 2 full professors
- 2 associate professors
- 5 assistant professors
- 3 researchers
- 17 PhD students

RESEARCH TOPICS

- Database systems
- Semantic web
- Similarity search
- XML
- Parallel computing
- Big Data



ABOUT THE INSTITUTION

The Research Center on Information Systems (CeRSI-LUISS) “Alessandro D’Atri” is the unit of the LUISS Guido Carli University in charge of both base and applied research in the areas of information systems (IS), enterprise software and knowledge platforms, organisation studies, and information and communication technologies. CeRSI-LUISS regularly runs scientific research and consultancy activities, and participates in national, European, and international R&D programmes. CeRSI-LUISS also promotes the development of research in cooperation with most prominent Italian and foreign scientific communities, and performs, upon request by public or private, national or international organisations, scientific counselling and researches in the aforementioned thematic areas.

CeRSI-LUISS is one amongst the most significant research centres in the area of IS in Italy, not only for the quality of the research activities performed, but also for having contributed to the birth and growth of the itAIS (www.itais.org), the Italian Chapter of the AIS (www.aisnet.org), and for having promoted and coordinated the role of the Italian academic and scientific community, especially at an international level. In the international landscape, even though it cannot compete with institutions with a larger and more solid experience, CeRSI-LUISS is credited with an important position

achieved mainly thanks to the participation in a high number of international research projects, the agreements on scientific cooperation, and the contributions to the organisation of several international events.

In 2014 the CeRSI-LUISS research center hosted six visiting scholars. Still in 2014, members of the CeRSI-LUISS research center visited foreign Departments in Europe, USA, and Australia. In this context, the ERCIS network still represents an important vehicle of opportunities, being a source of contacts for exchanges of scholars and joint research activities.

In 2014 Springer published the three volumes of the series Lecture Notes in Information Systems and Organization (LNISO), started by CeRSI-LUISS in 2012. More specifically these volumes contained invited papers from the ItAIS 2013 conference editions. Further volumes are planned to be issued in 2015. ERCIS members are invited to propose new volumes to be published in this series that aims to become an important platform for the dissemination of research results in the areas of IS and organisation.

RESEARCH TOPICS

Research at CeRSI-LUISS is done in conjunction with project activities in which CeRSI-LUISS members participate in the iterative phases of designing and evaluating IT artefacts. A multidisciplinary team of

IS scholars with backgrounds in computer science, engineering, economics, management, cognitive and political sciences collaborate in both project and research activities by bringing together a multiplicity of methods for planning interventions and analysing phenomena from different perspectives. This approach allows scholars to address relevant problems and engage in national and international cooperation with other universities and research institutions.

Research at CeRSI-LUISS focusses on three subject areas. The first is related to architectural and governance mechanisms of digital platforms supporting online communities. The second is related to organisational learning processes and capability development for digital transformation in private and public sectors. The third refers to IT governance models, methods and tools in relationship with the evolution of socio-technical systems. Among the more recent application domains for these concepts are e-health and social services, e-business, and e-participation. Beyond these topics-oriented studies the research group is engaged in a continuous quest for new research methods through meta-level studies on existing approaches and the application of emerging methods. This is the case for instance of agent based simulations which are considered a potential tool for exploring emergent phenomena such as online collaboration.

CURRENT RESEARCH PROJECTS

In 2014 the CeRSI-LUISS team has been engaged in disseminating the results of projects successfully completed in 2013 in the areas of e-learning (i.e. “Learning in Virtual Spaces: New Ways to Design and Implement Advanced Professional Education and Training Models”), e-culture (i.e. “Multimedia Information Distribution Using Bluetooth”) and e-health (i.e. “Help and Social Interaction for the Elderly on a Multimedia Platform with e-Social Best Practices”).

A new project has been started in the area of online collaboration whose objective is to define new modes of collaboration based on the Cooperative Commons principles (<http://www.cooperativecommons.coop>). The development of new citizens’ rights (e.g. self-determination) and new online services are the main objectives of this project which will deploy and evaluate pilots in the fields of e-health and e-participation.

A further area of interest is related to IS education and IT professionalisation, in which CeRSI-LUISS is contributing to the definition of the e-leadership academic curricula in Italy and is working on the definition of a EU project proposal in collaboration with ERCIS members.

Finally, the project on “Simulation studies in IS research” started in 2013 from the collaboration of the CeRSI-LUISS and the Institute of Information Management of University of St. Gallen, is moving ahead with a new plan for faculty exchanges and joint activities in 2015.

PUBLICATIONS

Baskerville R., Spagnoletti P., J. Kim (2014) Incident-Centered Information Security: Managing a Strategic Balance between Prevention and Response, Information and Management, Vol. 51, pp. 138–151, <http://dx.doi.org/10.1016/j.im.2013.11.004>

Consoli C., Rocchi P., and Spagnoletti P. An empirical study of offshore software development: the case of a ticketing application. *Journal of Computing and Information Technology*, to appear

Carillo K., Scornavacca E., and Za S., 2014, “An investigation of the role of dependency in predicting continuance intention to use ubiquitous media systems: combining a media system perspective with expectation-confirmation theories”, *Proceedings of the European Conference on Information Systems (ECIS) 2014*, Tel Aviv, Israel, June 9–11, 2014

North-Samardzic, A., Braccini A.M., Spagnoletti P. and Za S. (2014) Applying Media Synchronicity Theory to distance learning in Virtual Worlds: a Design Science approach. *International Journal of Innovation and Learning*, Vol. 15, No. 3, ISSN 1741-8089, pp. 328–346

Resca A., Spagnoletti P., (2014) Business development through digital transformation: the evolution of Amazon.com, In *IS, Management, Organization and Control: Smart Practices and Effects*, D. Baglieri et al., LNISO, forthcoming

Sabini, L. (2014). The Institutionalization of Project Management: An Analysis of the actors, strategies and paths that lead to the professionalization of a new discipline (p. 104). *Scholars’ Press.*

Sæbø, Ø., Braccini, A. M., & Federici, T. (2014). From the Blogosphere into Real Politics: The Use of ICT by the Five Star Movement. In L. Mola, F. Pennarola, & S. Za (Eds.), *From Information to Smart Society – Environment, Politics and Economics* (pp. 241–250). Springer.

Vom Brocke, J., Braccini, A. M., Sonnenberg, C., & Spagnoletti, P. (2014). Living IT infrastructures — An ontology-based approach to aligning IT infrastructure capacity and business needs. *International Journal of Accounting Information Systems*, 15(3), 246–274. doi:10.1016/j.accinf.2013.10.004



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KEY FACTS

INSTITUTION

- Amongst the most relevant research institutions in the IS research area in Italy
- 4 senior advisors
- 5 researchers
- A number of external national and international co-workers

RESEARCH TOPICS

- Digital platforms
- Digital transformation
- IT governance



ABOUT THE INSTITUTION

The Institute of Information Management at the University of St. Gallen (IWI-HSG), founded in 1989, is an autonomous research institution affiliated with the University of St. Gallen (HSG). The Institute pursues a mixed funding approach. Both public and privately funded research projects at the IWI-HSG are organised within the research programme, Business Engineering, which focusses on supporting business innovation through engineered generic artefacts, such as methods or reference models, or through innovative prototypes.

IWI-HSG comprises five departments run by full professors (as of autumn 2014): Andrea Back, Walter Brenner, Reinhard Jung, Jan Marco Leimeister, and Robert Winter. Fifteen postdocs, approximately 36 PhD students, approximately 12 support staff and several student assistants contribute to the Institute's mission.

SELECTED RESEARCH PROJECTS

Enterprise Transformation Management: The main research focus of the CC Corporate Intelligence is to develop "A Design Theory for Architectural Coordination of Enterprise Transformations". A theoretically grounded and customised method for a coordinated implementation of enterprise transformation is developed. For this purpose, various architectural elements, such as frameworks, modelling languages or model analysis, are integrated in a consortium of industry partners. Further information: <http://ci.iwi.unisg.ch>

Health Services Research: The CC Health Network Engineering focusses on optimising business processes in healthcare organisations, as well as on networkability within the public health sector. Current research topics include transformational healthcare, e-health, process and quality management in healthcare, cooperation and service engineering, as well as business models in the public sector. Further information: <http://ehealth.iwi.unisg.ch>

Corporate Data Quality: CC Corporate Data Quality is focused on the development of methods, architectures, reference models, and prototypes required for efficient

implementation of Corporate Data Quality Management (CDQM) in organisations. During consortium workshops and bilateral projects participating enterprises gain critical know-how concerning the successful establishment and maintenance of highly effective CDQM systems. Further information: <http://cdq.iwi.unisg.ch>

Design Thinking: The Design Thinking research group is focused on embedding human-centric innovation tools into corporate structures. The research team continuously strives to improve the capability of corporate IT using a holistic approach and to reduce costs and risks in innovation projects. Recent research findings have proven that a combination of verified tools with new agile processes and methods in organisations initiate the transformation into customer-oriented IT.

Sourcing in Financial Services: CC Sourcing (in cooperation with the University of Leipzig) develops concepts, instruments and prototypes for managing financial networks. Research activities concentrate on customer- and service-oriented innovations in networked banks. Further information: <http://sourcing.iwi.unisg.ch>

Independent Living: CC Independent Living is engaged in research topics related to quality-of-life enhancement with a special focus on elderly citizens. Besides working on innovative service solutions (e.g., outdoor and safety assistance on mobile devices), service marketplaces and corresponding business models, which facilitate local service provider networks to serve consumers with personalised well-coordinated service bundles, are developed and tested. Further information: <http://il.iwi.unisg.ch>

Crowdsourcing & IT Innovation: The research goals of the Crowdsourcing research group include development of models and instruments for the systematic design, introduction and use of crowdsourcing approaches and IT-based innovations. Further information <http://crowdsourcing.iwi.unisg.ch>



PUBLICATIONS

The following list represents a very limited extract of the IWI-HSG publications in 2014. A complete list of publications, as well as full texts of many papers, is available at <http://www.iwi.unisg.ch/publikationen>

Aier, Stephan: The Role of Organizational Culture for Grounding, Management, Guidance and Effectiveness of Enterprise Architecture Principles. In: Information Systems and E-Business Management 12 (2014), Nr. 1, S. 43–70.

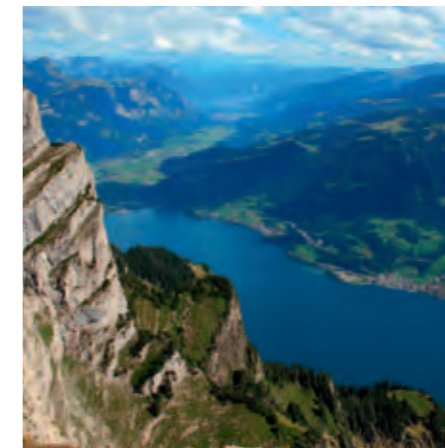
Bittner, E. A. C.; Leimeister, Jan Marco: Creating Shared Understanding in heterogeneous work groups - Why it matters and how to achieve it. In: Journal of Management Information Systems 31 (2014), Nr. 1, S. 111–143.

Brenner, Walter; Karagiannis, Dimitris; Kolbe, Lutz; Krüger, Jens; Lamberti, Herman Josef; Leifer, Larry; Leimeister, Jan Marco; Österle, Hubert; Petrie, Charles; Plattner, Hasso; Schwabe, Gerhard; Uebernickel, Falk; Winter, Robert; Zarnekow, Ruediger: User, Use & Utility Research: The digital user as new design perspective in Business & Information Systems Engineering. In: Business & Information Systems Engineering 6 (2014), Nr. 1, S. 55–61.

Mettler, Tobias; Eurich, Markus; Winter, Robert: On the Use of Experiments in Design Science Research: A Proposition of an Evaluation Framework. In: Communications of the Association for Information Systems 34 (2014), Nr. 1, S. 223–240.

Silic, Mario; Back, Andrea: Information Security – Critical Review and Future Directions for Research. In: Information Management & Computer Security 22 (2014), Nr. 3, S. 279–308.

Cleven, Anne; Winter, Robert; Wortmann, Felix; Mettler, Tobias: Process Management in Hospitals – An Empirically Grounded Maturity Model, in: Business Research, 7 (2014), 2, pp. 191–216.



EVENTS

In 2014 the 41st edition of the Anwenforum St. Gallen took place, focussing on enterprise architecture and transformation. Jointly with The Data Warehousing Institute, IWI-HSG hosted the business analytics-centric DW2014 conference in Zurich. IWI-HSG also organised the Business Engineering Forum, and the Mobile Business Forum.



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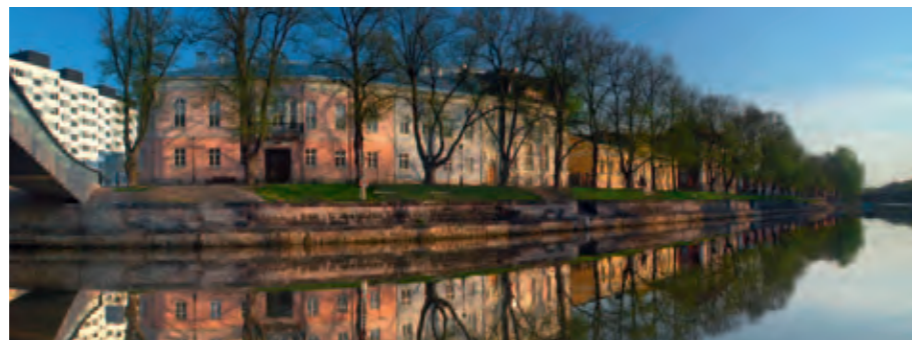
INSTITUTION

- Founded in 1989
- 5 chairs
- 56 researchers
- Executive education programmes: Executive Master's in Business Engineering, Diploma in IT Business Management

RESEARCH TOPICS

- Enterprise transformation management
- Health services research, Independent living
- Design thinking
- Service innovation and engineering
- Sourcing in financial services
- Mobile business solutions
- Crowdsourcing and IT innovation

UNIVERSITY OF TURKU – TURKU SCHOOL OF ECONOMICS – DEPARTMENT INFORMATION SYSTEMS SCIENCE



ABOUT THE INSTITUTION

The University of Turku is a multidisciplinary scientific university located on the Southwest coast of Finland, in the lively student city of Turku. With over 20,000 students and 3,300 employees, the University of Turku is one of the largest universities in Finland. The Institute for Information Systems has three full professors and a total staff of about 25 and has approximately 20 active doctoral level students. This year intake for students to the master's level having information systems science as their major subject is around 20 and of the annual intake of 250 of the whole Business School. In addition, every year there are approximately 40 master's level students in the two international master's programmes of the Institute: Global Information Systems Management and International master's in Management of Information Technology (which was ranked by the Eduniversal as the 33rd best major programme of 200 major programmes in the area of management of information systems).

The Institute is a member of the Turku Center for Computer Science (TUCS) for studies within information systems. TUCS is a joint unit held between the University of Turku, the Turku-based Swedish-speaking Åbo Akademi University and Turku Polytechnic.

The Institute for Advanced Management Systems Research (IAMSR) in Åbo Akademi University and Information Systems Science in the Turku School of Economics has formed the Turku Information Systems Research Alliance (TISRA). The objective is to increase the effectiveness and credibility of the teaching of and research in information systems science on the national level, and develop further cooperation and trust between the research units.

RESEARCH TOPICS

The focus of the research activities within the institute lies in understanding the use of information and communication technology in enterprises and other organisations. The research conducted within the institute covers most of the key areas of information systems. The research activities can be classified into five themes:

- Management of IS and Business IS
- Networks and Business Models
- Work Informatics
- Healthcare Information Systems
- IT ethics

In terms of research methods used, the institute has a track record and long tradition in conducting action research dating back to the 1980s. Today, the competence of the faculty members covers the whole methodological spectrum from qualitative to quantitative research, not forgetting the philosophical argumentation.

Despite being in a business school, the Institute runs a rich research tradition on public sector and third sector organisations also. E-health is a good example of this, where the role of public service cannot be forgotten. Research is done from the viewpoint of different organisational stakeholders: organisation's top management, information systems management, as well as individuals such as customers or workers. Recent developments put emphasis on the management and organisational aspects of data security and privacy, as well as IT governance issues.

CURRENT RESEARCH PROJECTS

One of the Institute's primary activities is the ICT-portti-project (from 2008) with the aim of promoting cooperation between industry and higher education, especially in the case of SMEs. A similar focus is the production of the Finnish ICT barometer. This research has been carried out since 2012 by Tomi Dahlberg in association with the Finnish Information Processing Association at the University of Turku.

During 2014 several research projects were also carried out with the City of Turku. The biggest was the Coper-pilot whose aim was to develop a citizen-centric web-based portal for cardiac patients. Other ongoing projects include D2I (Data to Intelligence) and an established Work Informatics User Experience (WIUX) laboratory, which focusses on usability research in various projects.

A new project in 2014 was the Material Value Chain Project in the project portfolio of Cleen Ltd, a Finnish Strategic Centre for Science, Technology and Innovation in the field of environmental technology.

EVENTS

WIS2014

The 5th International Conference on Well-being in the Information Society (WIS 2014) gathered around 100 participants from all over the world: researchers, health care practitioners, representatives of non-governmental organisation as well as businesses to discuss the opportunities, challenges and risk that cities and citizens face in the 21st century – in the era of digitalisation, social media and new health technologies.

HCC11

Human Choice and Computers – a series of conferences organised by the International Federation of Information Processing's (IFIP) Technical Committee 9 (TC9) – works to shape socially responsible and ethical policies and professional practices in the information society. In 2014, this conference series celebrated its fortieth year.

PUBLICATIONS

Li, H., Liu, Y. (2014). Understanding post-adoption behaviours of e-service users in the context of online travel services. *Information & Management*.

Rohunen, A., Markkula, J., Heikkila, M., & Heikkila, J. (2014). Open traffic data for future service innovation: addressing the privacy challenges of driving data. *Journal of theoretical and applied electronic commerce research*, 9(3), 71–89.

Suomi, R., Mäntymäki, M., Söderlund, S. (2014) Promoting Health in Virtual Worlds: Lessons from Second Life. *Journal of Medical Internet Research* Vol 16, No. 10), e229.

Mäntymäki, M. & Islam, A. K. M. N. (2014) Social Virtual World Continuance among Teens: Uncovering the Moderating Role of Perceived Aggregate Network Exposure, *Behavior & Information Technology*, 33 (5), 536–547.

Mäntymäki M., Merikivi J., Verhagen T., Feldberg F. & Rajala R. (2014) Does a contextualized theory of planned behavior explain why teenagers stay in virtual worlds?, *International Journal of Information Management*, Vol 34(5), 567–576.

Hyrynsalmi S., Seppänen M. & Suominen A. (2014) Sources of value in application ecosystems, *Journal of Systems and Software* 96, 61–72.

DISSERTATIONS

Lahtiranta Janne: New and Emerging Challenges of the ICT-Mediated Health and Well-Being Services.

Xiaoyu Xu: Understanding online game player's post-adoption behaviour: An investigation of social network games in China.



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KEY FACTS

INSTITUTION

- International environment
- Approximately 23 000 students
- Circa 3 500 staff members

THE INSTITUTE

- Yearly master's level intake around 30
- 3 professors, 25 staff members, 20 active doctoral students

IS MASTER'S PROGRAMMES

- Global IT Management (GITM)
- International Master's in Management of IT (IMMIT)

RESEARCH TOPICS

- Management of IS and business IS
- Networks and business models
- Work informatics
- Well-being and healthcare IS

ULSAN NATIONAL INSTITUTE OF SCIENCE AND TECHNOLOGY (UNIST) – SCHOOL OF BUSINESS ADMINISTRATION



ABOUT THE INSTITUTION

The School of Business Administration at UNIST aims to cultivate students who have the key talents needed for management positions and who will be able to lead the global economy era by combining science and technology principles with management skills. Toward this end, our students will cultivate the basic knowledge needed to be outstanding managers in a variety of positions through the undergraduate curriculum, which includes the following majors: technology management, management information systems, financing, accounting, marketing and international management. The School of Business Administration has about thirty faculty members, and they make important research contributions and actively publish their research.

BUSINESS ANALYTICS PROGRAMME

To meet the demands set by world trends and features of local industries, our school has developed a graduate programme in business analytics (BA).

Students in the Business Analytics programme will be trained for careers in a variety of business fields. By acquiring the latest analytical techniques as well as business knowledge in the programme, students will become analytics experts, good at analysing and interpreting business phenomena. The programme consists of business knowledge courses, training in analytical techniques, and analytics projects. The programme will help students to gain insight into business complexity in the Big Data era.

RESEARCH TOPICS

In the School of Business Administration, we have five research groups: Digital Business Strategy, Risk Management, Behavioural Decision Making, Energy Commodity Trading & Financial Engineering, and Financial Mathematics. Furthermore, the Center for A2 (Advanced Analytics) was launched in 2014. The center focusses on the development of innovative analysis methods and the cultivation of analytic professionals in the big data era. Our strategic focusses are analytic for manufacturing and healthcare. The center emphasises on active collaborations with industries and aims to contribute enhancement of industrial competitiveness in the country.

Some of the research topics are as follows:

- **Dr. Wooje Cho's** core research area is information technology strategy, which has two dimensions: (1) strategic management of IT for general firms and (2) strategy for IT firms. The first research dimension includes the topics of IT portfolio management, and information security. The second includes investment in software quality for vendors, software engineering issues and strategies for the merger with or the acquisition of IT firms.
- **Dr. Changyoung Lee** focusses mainly on: 1) future-oriented technology analysis, 2) systematic technology intelligence, 3) robust technology planning, 4) intellectual property management, and 5) service science.
- **Dr. Minseok Song** focusses on BPM and process mining. Special areas of research are process mining in healthcare industry and manufacturing process analysis. Currently, he is involved in several research projects with industry partners and tries to develop more practical process mining techniques considering industry characteristics.



CURRENT RESEARCH PROJECTS

This year, several projects in process mining are ongoing. The titles of the projects are as follows:

- Software development of automated business process analysis on enterprise big data for business tasks, and collaboration management (funded by the Ministry of Knowledge Economy, 2013–2014)
- Process mining in case handling processes (funded by National Science foundation of Korea, 2011–2016)
- Process mining in B2C Service industry (funded by Ministry of Knowledge Economy, 2011–2016)
- Development of a CP discovery & management system (Bundang Seoul National University Hospital, 2013–2014)

SELECTED PUBLICATIONS

Y. Jung and S. Kim, “Response to potential information technology risk: Users’ valuation of electromagnetic field from mobile phones”, *TELEMATICS AND INFORMATICS*, Vol.32, No.1, pp.57–66, 2014.

W. Cho, Y. Jung, and JH Im, “Students’ evaluation of learning management systems in the personal computer and smartphone computing environments”, *International Journal of Mobile Communications*, Vol. 12, No.2, pp.142–159, 2014.

Y. Jung and SD Pawlowski, “Understanding consumption in social virtual worlds: A sensemaking perspective on the consumption of virtual goods”, *JOURNAL OF BUSINESS RESEARCH*, Vol.67, No.10, pp.2231–2238, 2014

M. Cho, M. Song, and S. Yoo, “A Systematic Methodology for Outpatient Process Analysis Based on Process Mining”, *AP-BPM* 2014, pp. 31–42, 2014

C. Lee, B. Kang, and J. Shin, “Novelty-focused patent mapping for technology opportunity analysis”, *TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE*, 2014 (forthcoming).



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KEY FACTS

INSTITUTION

- Founded in 2009
- 5,000 students
- School of Business Administration with 30 faculty members

RESEARCH TOPICS

- Digital Business Strategy: IT-enabled organisational innovation, IT governance and security, IT economics, economics in the digital age, business process mining/Data mining, e-commerce, e-education, social media, Big data analysis
- Behavioural decision making
- Risk management
- Energy commodity trading and financial engineering



UNIVERSITY OF LIECHTENSTEIN – INSTITUTE OF INFORMATION SYSTEMS – HILTI CHAIR OF BUSINESS PROCESS MANAGEMENT

› University of Liechtenstein – Institute of Information Systems – Hilti Chair of Business Process Management www.uni.li/is

UNIVERSITÄT
LIECHTENSTEIN



ABOUT THE INSTITUTION

The Institute of Information Systems at the University of Liechtenstein was founded in the early 1990s and has been continuously growing since then. Members of the institute have published in leading IS journals, including *MIS Quarterly*, *Journal of the AIS*, *Journal of MIS*, and *Journal of Information Technology*. The institute offers a Master's in Information Systems with majors in Business Process Management and Data Science, a PhD programme in Information and Process Management, and a major in Information Management & IT within the Bachelor's programme in Business Administration.

The institute is a co-founder of the Hilti Fellowship Programme which provides highly motivated and committed master's students with the opportunity to do an internship at the Hilti Corporation in Liechtenstein while, at the same time, studying in the Master's programme in Information Systems at the University of Liechtenstein. Currently welcoming applications for the 16th call of the Hilti Fellowship, the programme is a vital element of student exchange within the ER-CIS network. In the last year, students from Estonia, Finland, Germany and Russia participated in the programme (more information available at www.uni.li/hilti-fellowship).

Starting from February 2015 onwards, students also have the opportunity to become a Student Research Fellow at the Institute of Information Systems. Students will be involved in the department's research activities while at the same time studying for their master's degree. Funding is provided

to support students with their living costs in Liechtenstein. (see www.uni.li/student-research-fellowship for details).

The institute represents the Association for Information Systems (AIS) in Liechtenstein through the Liechtenstein Chapter of the AIS (LCAIS). Iris Junglas (Florida State University, Tallahassee, USA); Marcello La Rosa and Jan Recker (both from the Queensland University of Technology, Brisbane, Australia); Günter Schmidt (Saarland University, Saarbrücken, Germany); Nicholas Berente (Terry College of Business, Athens, USA); and Christoph Schneider (City University of Hong Kong) have been awarded Liechtenstein Research Fellows. They visit the institute on a regular basis.

RESEARCH TOPICS AND PROJECTS

Evaluating IT Support for Creative Processes: Creativity is the origin of innovation. It is thus an indispensable factor in propelling economic growth and societal well-being.

eSociety and Open Innovation: In this project, funded by the International Lake Constance University Consortium, the Lake Constance Region is analysed as a case in which four countries (Liechtenstein, Switzerland, Austria, and Germany) interplay as an innovation cluster.

EU Project RISE_BPM: RISE_BPM is a recent ER-CIS project that networks world-leading research institutions and corporate innovators to develop new horizons for Business Process Management (BPM). BPM as a core research area of the group in Liech-

tenstein is a boundary-spanning discipline focussed on division and re-integration of work in organisations and on the analysis of process data for organisational decision-making.

Furthermore, we are member of the EU-funded projects PRAXIS (European Center for Project/Internship Excellence) and FETCH (Future Education and Training in Computing).

AWARDS

Stefan Debortoli (best publication) and Sonia Lippe Dada (best project) have been awarded the **Liechtenstein Young Research Award**.

The paper "Big Data & Inductive Theory Development: Towards Computational Grounded Theory?" by Nicholas Berente and Stefan Seidel received the **Outstanding Paper Award** in the Research Methods track at the 20th Americas Conference on Information Systems (AMCIS 2014).

Professor Jan vom Brocke was elected **Vice President of the AIS**, responsible for the area of education. In his term from July 2014 to July 2016 he intends to increase the societal contribution and recognition of the AIS through better transparency of IS educational programmes worldwide.

Professor Jan vom Brocke was elected **Vice President of the German Academic Association for Business Research**, which comprises nearly all 2000 business professors in Germany, Austria, Switzerland and Liechtenstein. Starting in January 2015 he will be responsible for the area of Design-oriented Research in Business.

Along with some 480 outstanding young academics from almost 80 different countries, Oliver Müller and Stefan Debortoli from the Institute of Information Systems at the University of Liechtenstein took part in the **Lindau Nobel Laureate Meeting on Economic Sciences** and met 19 Nobel prize winners on the shores of Lake Constance.

The Association for Information Systems (AIS) has awarded Professor Jan vom Brocke the **AIS Award for Innovation in Teaching**. Jan vom Brocke was honoured for his Collaborative Business course (also known as the ER-CIS virtual seminar) he has taught in collaboration with the Münster team for the third year running, involving students from over 30 countries.

PUBLICATIONS

Journal Publications:

Neff, A. A., Hamel, F., Herz, T. P., Uebernickel, F., Brenner, W., & vom Brocke, J. (2014). Developing a Maturity Model for Service Systems in Heavy Equipment Manufacturing Enterprises. *Information & Management*.

Seidel, S., Pimmer, C., Recker, J., vom Brocke, J. (2014). IT-enabled Sustainability Transformation—the Case of SAP, in: *Communications of the Association for Information Systems (CAIS)*,

Schmiedel, T., vom Brocke, J., & Recker, J. (2014). Development and Validation of an Instrument to Measure Organizational Cultures' Support of Business Process Management. *Information & Management*, 51(1), 43–56.

vom Brocke, J., & Liang, T.-P. (2014). Guidelines for Neuroscience Studies in Information Systems Research. *Journal of Management Information Systems (JMIS)*, 30(4), 211–234.

vom Brocke, J., Schmiedel, T., Recker, J., Trkman, P., Mertens, W., & Viaene, S. (2014). Ten Principles of Good Business Process Management. *Business Process Management Journal (BPMJ)*, 20(4), 530–548.

Müller, O., Schmiedel, T., Gorbacheva, E., & vom Brocke, J. (2014). Toward a Typology of Business Process Management Professionals: Identifying Patterns of Competence through Latent Semantic Analysis. *Enterprise Information Systems*,

Debortoli, S., Müller, O., & vom Brocke, J. (2014). Comparing Business Intelligence and Big Data Skills: A Text Mining Study Using Job Advertisements. *Business & Information Systems Engineering*, in press.

Books

J. vom Brocke & M. Rosemann (Eds.). (2015). *Handbook on Business Process Management*, 2nd Edition, Volume 1 und 2, Berlin et al.: Springer.

J. vom Brocke & A. Simons (Eds.). (2014). *Enterprise Content Management in Information Systems Research*, Foundations, Methods and Cases. Berlin et al.: Springer.

J. vom Brocke & T. Schmiedel (Eds.). (2015). *Business Process Management. Driving Innovation in a Digital World*. Berlin et al.: Springer.

DISSERTATIONS/HABILITATIONS

Dr. Stefan Seidel from the Institute of Information Systems has been awarded the *venia legendi* at the University of Liechtenstein. His habilitation "On Theory, Context, Design, and Impact in Information Systems Research," was supervised by Prof. Jan vom Brocke. The evaluation committee consisted of colleagues from the University of St. Gallen (Switzerland), the University of Innsbruck (Austria) and the University of Regensburg (Germany).

Both *Sonia Lippe Dada* and *Andrea Herbst* from the Institute of Information Systems were awarded their PhDs during the graduation ceremony on 26 September 2014. Both reached the highest marks (summa cum laude) for their research on: The Management of Collaborative Research Projects in Information Systems and Evaluating the Success of Enterprise Content Management, respectively.



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KEY FACTS

INSTITUTION

- Founded in 1991.
- 25 researchers

RESEARCH TOPICS

- Business process management
- IS-enabled Organisational transformation and green IS
- Creativity and innovation in IS
- Information and content management
- Big Data analytics

VIENNA UNIVERSITY OF ECONOMICS AND BUSINESS – INSTITUTE FOR INFORMATION BUSINESS

› Vienna University of Economics and Business – Institute for Information Business <http://www.wu.ac.at/infobiz/>



ABOUT THE INSTITUTION

The Department of Information Systems and Operations, Vienna University of Economics and Business (WU Vienna), was founded in the course of WU's organisational restructuring in 2005. Since then, it has consolidated the know-how and reputation of five highly renowned institutes and 16 professors with distinguished focusses in research and teaching, providing a broad representation of IS research topics. Our Bachelor's Programme in Information Systems is recognised as Austria's leading degree program in this field (according to Format Uni-Ranking, 2009).

The recently established Master's Programme in Information Systems (launched in winter semester 2013/14) ambitiously attempts to follow in these successful steps. It provides students with IT-related knowledge and skills, with a particular emphasis on management and research topics. It is a well-balanced mix of theory and practice and the inclusion of state-of-the-art research findings gives graduates the tools they need to question standard practices and develop innovative solutions. The Master's in Information Systems was designed, together with a board of leading Austrian stakeholders from industry and govern-

ment, to meet today's challenges and to provide a solid basis for tomorrow's demands.

RESEARCH PROJECTS

The department of Information Systems & Operations consists of five institutes. The Institute for Information Business conducts research in the area of business- and technology-driven innovations with a specific focus on business process management, knowledge management, decision support systems, and the semantic web. The Institute for Information Management and Control's focus is on responding to the needs of organisations and societies with regard to information and technology management, especially considering accountability. The research areas of the Institute for Information Systems and New Media emphasise two major areas: new media – in particular computational media, active media, and polymorphic media – and information systems – in particular highly flexible systems and application engineering. The Institute of Management Information Systems intends to use a wide range of methods to contribute to the development of aspects of sustainable technology. The institute's aim is to be a think tank for business and society that focusses on the sustainable design of information

technology. The Institute for Production Management focusses on research in the area of supply-chain management.

CURRENT RESEARCH PROJECTS

The Department of Information Systems and Operations is currently involved in numerous research projects, some of which started recently. To name a few:

In the context of GET Service, which is a project that develops a service platform for Green European Transportation (GET), that facilitates real-time aggregated planning, synchro-modal (re) planning, reduction of empty miles and co-modal planning, the following main events happened in the past year: WU Vienna hosted the General Assembly for GET Service, the first one after the Year 2 Review meeting held in Eindhoven). WU also attended the General Assembly that took place in Munich in May 2014 hosted by Transver GmbH, and Potsdam in September 2014, hosted by Hasso Plattner Institute at University of Potsdam. GET Service's topics and objectives were presented by Jan Mendling as part of the keynote of the EMoV Workshop at Modelierung 2014 in March 2014. Recent advancements were published as research papers, co-authored and presented by WU

members at EMoV 2014, BPMDS 2014, BPM 2014, and JCIS 2014.

The SHAPE (Safety-critical Human- & dAta-centric Process management in Engineering projects) project of the FFG (Forschungsförderungsgesellschaft) programme started on 1 October 2014 and it will be running for the next 30 months. In this project, the Institute for Information Business, in collaboration with Siemens AG, will develop ICT support for more rigorous and verifiable process management in recurring and adaptive engineering processes, by supporting modelling, monitoring and conformance checking in safety-critical engineering processes.

In the new EU-funded research project, SERAMIS (Sensor-Enabled Real-World Awareness for Management Information Systems), we want to push the boundaries of current RFID applications, thus turning them into powerful tools for intelligent information management. A special focus is on the privacy issues that may arise with innovative RFID applications. Project members from WU are (in alphabetical order) Sushant Agarwal, Jan Mendling, Andreas Rogge-Solti, and Sarah Spiekermann.

We started the project with the kickoff meeting hosted in Vienna.



AWARDS

In October 2014, Henrik Leopold received the TARGION dissertation award for his doctoral thesis „Natural Language in Business Process Models“. The TARGION award is the most highly remunerated award in the field of Information Systems research in Germany. It includes a price of €10.000, and is bestowed every three years by the management consulting company INTARGIA.events.

SELECTED PUBLICATIONS

Henrik Leopold, Jan Mendling, Hajo A. Reijers, Marcello La Rosa: Simplifying process model abstraction: Techniques for generating model names. Inf. Syst. 39: 134–151 (2014)

Di Ciccio, Claudio, Marrella, Andrea, Russo, Alessandro. 2014. Knowledge-intensive Processes: Characteristics, Requirements and Analysis of Contemporary Approaches. Journal on Data Semantics 1–29

Henrik Leopold, Jan Mendling, Artem Polyvyanyy: Supporting Process Model Validation through Natural Language Generation. IEEE Trans. Software Eng. 40(8): 818-840 (2014)
Umbrich, Jürgen, Hogan, Aidan, Polleres, Axel, Decker, Stefan. Forthcoming. Link traversal querying for a diverse web of data. Semantic Web – Interoperability, Usability, Applicability

Sarah Spiekermann, Jana Korunovska: The importance of interface complexity and entropy for online information sharing. Behaviour & IT 33(6): 636-645 (2014)

Kayikci, Yasanur, Stix, Volker. 2014. Causal mechanism in transport collaboration. Expert Systems with Applications 41 (4): 1561–1575.

Sigrid Schefer-Wenzl, Mark Strembeck: Modeling Support for Role-Based Delegation in Process-Aware Information Systems. Business & Information Systems Engineering 6(4): 215-237 (2014)

Sigrid Schefer-Wenzl, Mark Strembeck: Model-driven specification and enforcement of RBAC break-glass policies for process-aware information systems. Information & Software Technology 56(10): 1289–1308 (2014)

Bernhard Hoisl, Stefan Sobernig, Mark Strembeck: Modeling and enforcing secure object flows in process-driven SOAs: an integrated model-driven approach. Software and System Modeling 13(2): 513–548 (2014)



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KEY FACTS

INSTITUTION

- Founded in 2005.
- More than 70 researchers

RESEARCH TOPICS

- Business process management
- Process mining
- Supply chain operations planning
- Social aspects of IS
- Business programming
- Knowledge management
- Semantic web technologies
- Operations research
- Decision support systems
- Computer integrated manufacturing
- Online algorithms and decision theory
- New product development
- Data modelling and eLearning
- Relation theory
- eGovernment and eVoting
- eMarketing and Software agents
- Secure business systems



ABOUT THE INSTITUTION

The Waikato Management School is accredited by AACSB International, EQUIS – the European Quality Improvement System, and AMBA – the UK-based Association of MBAs. AACSB is the US-based Association to Advance Collegiate Schools of Business and is the world's oldest-established quality assurance body in management education.

These accreditations are reviewed every few years by a team of academics from business schools around the world to ensure Waikato Management School staff continue to offer high quality and relevant teaching and that our top research rankings, programming and planning are maintained to international standard. The Waikato Management School is the top-ranked business school in New Zealand based on PBRF research productivity assessments.

The Department of Management Systems is one of eight departments in the Waikato Management School and oversees the disciplines of e-business, e-commerce, supply chain management, and logistics. The Department also teaches project management, decision making and knowledge management. It was one of the first places in the world to introduce the Bachelor of Electronic Commerce degree, and complementary qualifications, including the Master's in Electronic Commerce and Postgradu-

ate Diploma in Electronic Commerce, have grown out of the Department's success in this area.

RESEARCH TOPICS

Our research reflects the multidisciplinary nature of the department. Recent relevant research projects focus on:

- Data curation
- IT project management
- Data marketplaces
- Mobile commerce
- Electronic government
- Systems intelligence
- Knowledge transfer
- Supply Chain Integration

CURRENT RESEARCH PROJECTS

One of the Department's key research projects, involving collaboration with Prof Gottfried Vossen from Muenster and his research assistant Florian Stahl, examines a range of related issues associated with data curation, presentation of curated data on mobile devices, and data storage and presentation without internet access. An important output of this work to date has been the Web In Your Pocket (WiPo) tool, which allows selected data to be 'pushed' to a digital device and remain available to the user, even in areas where there is no internet access. The WiPo tool has the potential to be used in a range of areas, in-

cluding e-tourism, emergency management and healthcare sectors. Another international collaborative project (involving Waikato, QUT & Muenster) that was funded as part of the NSS project, has contrasted the policy maker views around e-local government in each of Germany, Australia and New Zealand. A number of research publications are under way. Empirical research is also under way looking at the competencies of IT project managers. This project, carried out with the University of Washington, is uncovering a number of interesting attributes of successful IT project managers.

A number of other relevant research projects are ongoing in the areas of systems intelligence, knowledge sharing, supply chain integration, and emergency management.

HOSTED SEMINARS

The Department regularly hosts seminars by visiting speakers which span a range of topics, reflecting the multidisciplinary research interests of the Department. Recent seminar topics include "Using Change Management to Drive Sustainable Organisational Change", "Offshore Software Development and Maintenance from a Non-Anglo-Saxon Perspective: Project Selection and Success Factors", "Organising for Data Quality", and "The Web in Your Pocket – Bringing an Idea to Life".

PUBLICATIONS

Bohme, T; Williams, S; Childerhouse, P; Deakins, E; Towill, D (2014), Squaring the circle of healthcare supplies, *Journal of Health Organization and Management*, 28 (2): 247–265

Bohme, T; Deakins, E; Pepper, M; Towill, D (2014), Systems engineering effective supply chain innovations, *International Journal of Production Research*, online, 20 pgs

Chen, Jihong; McQueen, Robert; Sun, Peter (2013), Knowledge transfer and knowledge building at offshored technical support centers, *Journal of International Management*, -online, 1–15.

Dillon, Stuart; Stahl, Florian; Vossen, Gottfried; Rastrick, Karyn (2013), A contemporary approach to coping with modern information overload, *Communications of the ICISA*, 14 (1): 1–24.

Dillon, Stuart; Rastrick, Karyn; Stahl, Florian; Vossen, Gottfried (2014), Cases for the web in the pocket (WiPo): Surviving offline with online data, *International Journal of Information Technology and Web Engineering*, 9 (3): 20

Dillon, S; Buchanan, J; Al-Otaibi, K (2014), Perceived risk and online shopping intention: A study across gender and product type, *International Journal of e-Business Research*, 10 (4): 26 pgs

Dillon, S; Vossen, G (2014), SaaS cloud computing in small and medium enterprises: A comparison between Germany and New Zealand, *International Journal of Information Technology, Communications and Convergence*, online, 17 pgs

McQueen, Robert; Daud, Nordiana (2013), Relationships between micro-enterprises and web developers: Roles, misconceptions and communication, *International Journal of E-Entrepreneurship and Innovation*, 4 (1): 28–42.

McQueen, Robert; Yin, Zhaowen (2014), Perceptions of entrepreneurs about their zero employee web enabled businesses, *Journal of Small Business and Enterprise Development*, 21 (1): 26–48.

Rusly, F; Sun, YTP; Comer, J (2014), The impact of change readiness on the knowledge sharing process for professional service firms, *Journal of Knowledge Management*, 18 (4): 687–709

Zhang, Abraham; Lam, Jasmine Siu Lee (2014), Daily Maersk's impacts on shippers' supply chain inventories and implications for the liner shipping industry, *Maritime Policy and Management*, online, 17 pgs

Zhang, Abraham; Lam, Jasmine Siu Lee (2014), Impacts of scheduling reliability and sailing frequency on the liner shipping and port industry: A study of Daily Maersk, *Transportation Journal*, 53 (2): 235–253

Zhang, Abraham; Lam, Jasmine Siu Lee; Huang, GQ (2014), Port strategy in the era of supply chain management: the case of Hong Kong, *Maritime Policy & Management*, 41 (4): 367–383

Zhang, A (2014), Quality improvement through Poka-Yoke: from engineering design to information system design, *International Journal of Six Sigma and Competitive Advantage*, 8 (2): 147–159

DISSERTATIONS

Al Namani, Hamed: A Multi-level Technology Acceptance, Adoption and Implementation Model for Achieving Government-Citizen Dialogue: An Omani Case Study, 2014

Al Saifi, Said Abdullah: The Nature of the Relationships between Social Networks, Interpersonal Trust, Management Support, and Knowledge Sharing, 2014

Wilkinson, Gustav: Activity-based measurement extending attribute-based measurement of learning organisations, 2013



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KEY FACTS

INSTITUTION

- Founded in 1964.
- The Department of Management Systems is one of eight departments in the Faculty of management
- 6 full-time researchers

RESEARCH TOPICS

- IT project management
- Data marketplaces
- Data curation
- Website alignment
- Electronic government
- The IS research discipline
- Systems intelligence
- Knowledge transfer



CONCEPTUAL MODELING

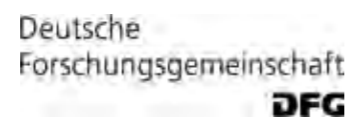
Nowadays, conceptual modeling supports a variety of business tasks aimed to improve the productivity of companies among different industries. Conceptual models capture various aspects of a company's structure and behaviour, such as business processes, business data, and organization. Documenting these aspects through diagrammatic representations provided by conceptual models, business analysts can gain a quick overview of how the company works in detail. Hence, conceptual models serve not only to document but also to analyze specific aspects of corporate reality in order to support economic decision making. For instance, the use of conceptual models supports Business Process Improvement, Benchmarking, Software Customizing, Workflow Management, and Compliance Management.

Due to their considerable potential to support decision making, many companies have started to create large collections of conceptual models. This makes it more and more difficult for analysts to analyze conceptual models in order to support their business tasks. Hence, the Competence Center of Conceptual Modeling focuses on the development of novel methodologies, providing automatic support for the design and analysis of conceptual modeling in different business domains. In particular, we worked on the following topics:

Generic Model Query Language (GMQL): GMQL is a structural query language for conceptual models that is based on graph pattern matching. With GMQL, analysts can search for sections in conceptual models that match a specific structure with specific contents. Such model querying serves in, for instance, identifying inefficiencies in business processes, searching for legal violations of information systems, or generating database tables automatically from a data model.

Diagrammed Model Query Language (DMQL): Like GMQL, DMQL is a graph pattern matching-based model query language. As opposed to GMQL, one can specify query patterns graphically, hence much in the same way that one would draw a conceptual model. In this way, we improved the ease-of-use of model querying and support the dissemination of model query languages into corporate reality.

Business Process Compliance Management (BPCM): We applied our knowledge of model querying to business process models to be checked for compliance. To prove the utility of model-driven Business Process Compliance Checking, we collaborate with companies from the financial sector. We successfully finished our research project on Business Process Compliance Management funded by the German Research Foundation (DFG) from 2012-09 to 2014-08.



Semantic Technologies in Business Process Management: To support the construction of consistent and unambiguous conceptual models in the field of business process management, a new research stream of our Competence Center is devoted to the use of semantic technologies to combine them with conceptual models. Such technologies include, amongst others, formal process ontologies, recommender systems, and computational linguistics services. To promote this topic, we founded a special

interest group within the German Computer Science Association (GI) in cooperation with the University of Osnabrück and the Karlsruhe Institute for Technology (KIT). The interest group has already organised a dedicated workshop on the conference Modellierung 2014 in Vienna. We will repeat the workshop at the ECIS 2015 conference in Münster. Furthermore, we created a joint research project on process modelling support systems together with our colleagues from Osnabrück.



Due to the frequent use of conceptual models in many domains, the Competence Center for Conceptual Modeling is closely linked to and cooperates with the Competence Centers of E-Government, ERP, and Service Sciences.

We are very happy that we could publish our research results in renowned, high-ranked outlets (such as Information Systems and Information Systems Frontiers). Recently, we were nominated for the Best Paper Award of the Wirtschaftsinformatik 2015 conference.

SELECTED PUBLICATIONS

Becker, J.; Delfmann, P.; Dietrich, H.-A.; Eggert, M.; Steinhorst, M.: Model-based Business Process Compliance Checking in Financial Industries – Conceptualization, Implementation, and Evaluation. *Information Systems Frontiers*. Accepted for Publication 2014-08-15, DOI: 10.1007/s10796-014-9529-y.

Delfmann, P.; Steinhorst, M.; Dietrich, H.-A.; Becker, J.: The Generic Model Query Language GMQL – Conceptual Specification, Implementation, and Runtime Evaluation. To appear in: *Information Systems* 47 (2015) 1, pp. 129–177.

Bergener, P.; Delfmann, P.; Weiss, B.; Winkelmann, A.: Detecting Potential Weaknesses in Business Processes – An Exploration of Semantic Pattern Matching in Process Models. To appear in: *Business Process Management Journal* 21 (2015) 1.

Delfmann, P.; Dietrich, H.-A.; Steinhorst, M.; Becker, J.: Comprehensive Tool Support for Enterprise Modelling and Evaluation. To appear in: *International Journal of Information System Modeling and Design* (2015).

Delfmann, P.; Höhenberger, S.: Supporting Business Process Improvement through Business Process Weakness Pattern Collections. To appear in: *Proceedings of the International Conference Wirtschaftsinformatik 2015*. Osnabrück 2015. Nominated for the Best Paper Award.

Breuker, D.; Delfmann, P.; Dietrich, H.-A.; Steinhorst, M.: Graph Theory and Model Collection Management – Conceptual Framework and Runtime Analysis of Selected Graph Algorithms. *Information Systems and e-Business Management (ISeB)* 12 (2014) 2.

Becker, J.; Beverungen, D.; Knackstedt, R.; Rauer, H. P.; Sigge, D.: On the Ontological Expressiveness of Conceptual Modeling Grammars for Service Productivity Management. *Information Systems and e-Business Management* 12 (2014) 3, pp. 337–365.

Knackstedt, R.; Heddier, M.; Becker, J.: Conceptual Modeling in Law: An Interdisciplinary Research Agenda. *Communications of the AIS (CAIS)* 34 (2014) 1.

Stein, A.; Heddier, M.; Knackstedt, R.; Becker, J.: Configuring the Supply Chain Operations Reference Model. *International Journal of Engineering, Science and Technology (IJEST)*, 6 (2014) 3, pp. 17–29

Havel, J.-M.; Steinhorst, M.; Dietrich, H.-A.; Delfmann, P.: Supporting Terminological Standardization in Conceptual Models – A Plugin for a Meta-Modelling Tool. In: *Proceedings of the 22nd European Conference on Information Systems (ECIS 2014)*. Tel Aviv 2014.

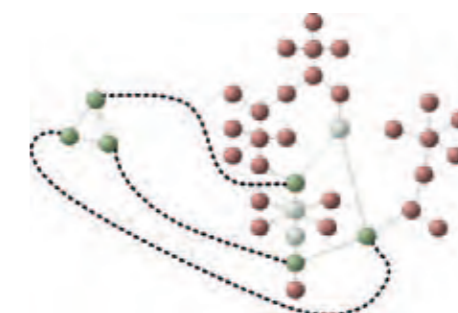
Becker, J.; Breuker, D.; Delfmann, P.; Matzner, M.: Designing and Implementing a Framework for Event-Based Predictive Modelling of Business Processes. In: *Proceedings of the International Workshop on Enterprise Modeling and Information Systems Architectures (EMISA 2014)*. LNI. Luxembourg 2014.

Breuker, D.; Dietrich, H.-A.; Steinhorst, M.; Delfmann, P.: Outlining a Graphical Model Query Approach Based on Graph Matching. In: *Proceedings of the International Workshop on Enterprise Modeling and Information Systems Architectures (EMISA 2014)*. LNI. Luxembourg 2014.

Breuker, D.; Delfmann, P.; Matzner, M.; Becker, J.: Designing and Evaluating an Interpretable Predictive Modeling Technique for Business Processes. In: *Proceedings of the 2nd International Workshop on Decision Mining & Modeling for Business Processes (DeMiMoP'14)*, held in conjunction with BPM 2014. LNBIP. Eindhoven 2014.

Delfmann, P.; Dietrich, H.-A.; Havel, J.-M.; Steinhorst, M.: A Language-Independent Model Query Tool. In: *Proceedings of the Conference Design Science Research in Information Systems and Technologies (DESRIST)*. Miami 2014.

Delfmann, P.; Hübers, M.: Entwicklung eines Katalogs von Regulationsmustern zur Unterstützung der Compliance-Überprüfung von Geschäftsprozessen im Finanzsektor. In: *Proceedings of the Workshop Dienstleistungsmodellierung (DLM)*, co-located with the conference Modellierung. Wien 2014.



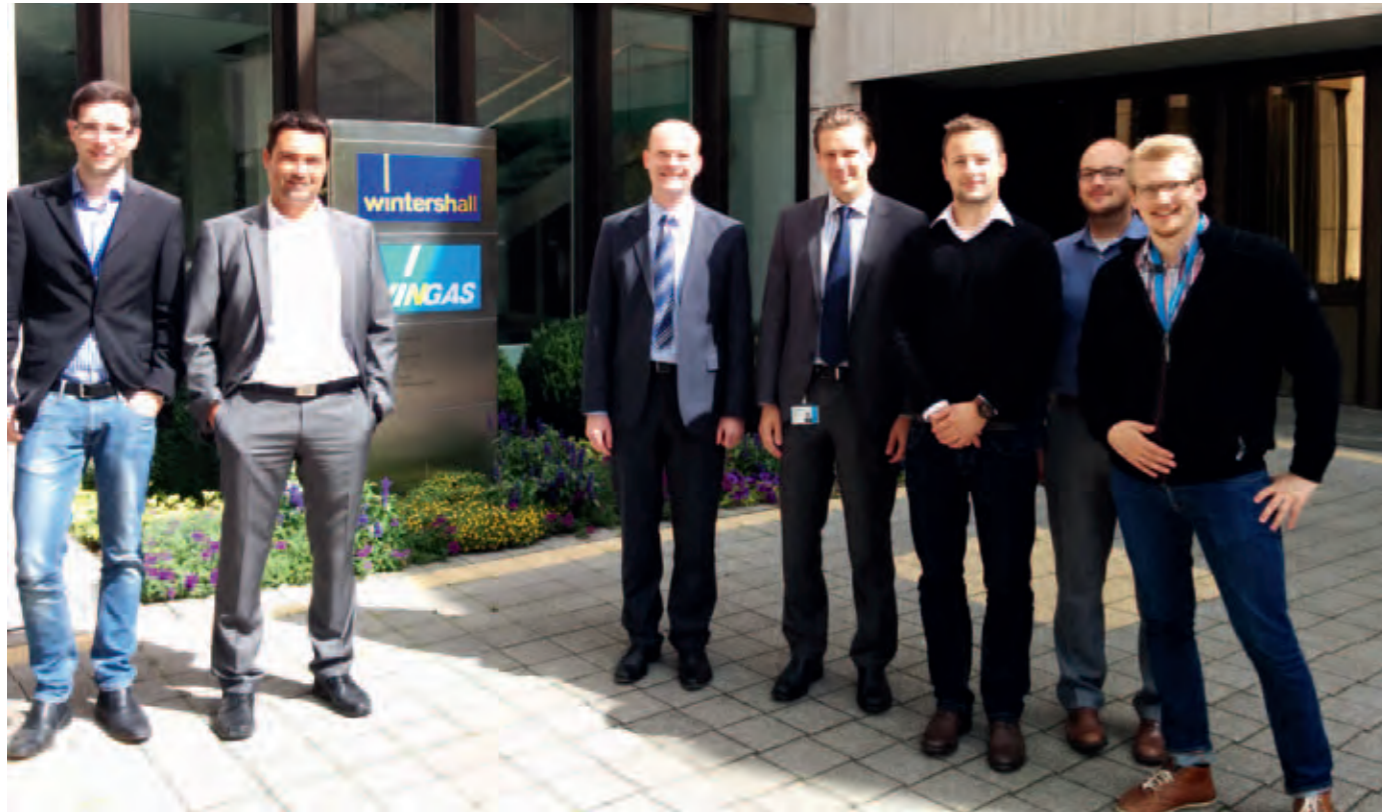
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Conceptual Modeling
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Student's Project – Mobile Applications at WINGAS Headquarters in Kassel

CONNECTED ORGANIZATION

The Competence Center Connected Organization (3CO) was founded in spring 2013 to examine the influence of upcoming IT technologies and trends in organizations. Caused by the introduction of new concepts and technologies on communication and collaboration, relations of companies, NGOs, and political actors to their stakeholders (citizens, customers, partners, interested parties, etc.) are heavily changing. This development leads to new challenges for organizations and to new research questions for the academic world.

The 3CO network consists of partners from University of Muenster (ERCIS), Technische Universität Berlin, Technische Universität Braunschweig, and Jacobs-University Bremen. Moreover, the network heavily cooperates with business partners as well as political players and public entities.

In February 2014 the first 3CO workshop took place at the "Multikonferenz Wirtschaftsinformatik (MKWI)" in Paderborn. The partners met to shape the scope and strategy of the Competence Center. The network partners committed to apply for common

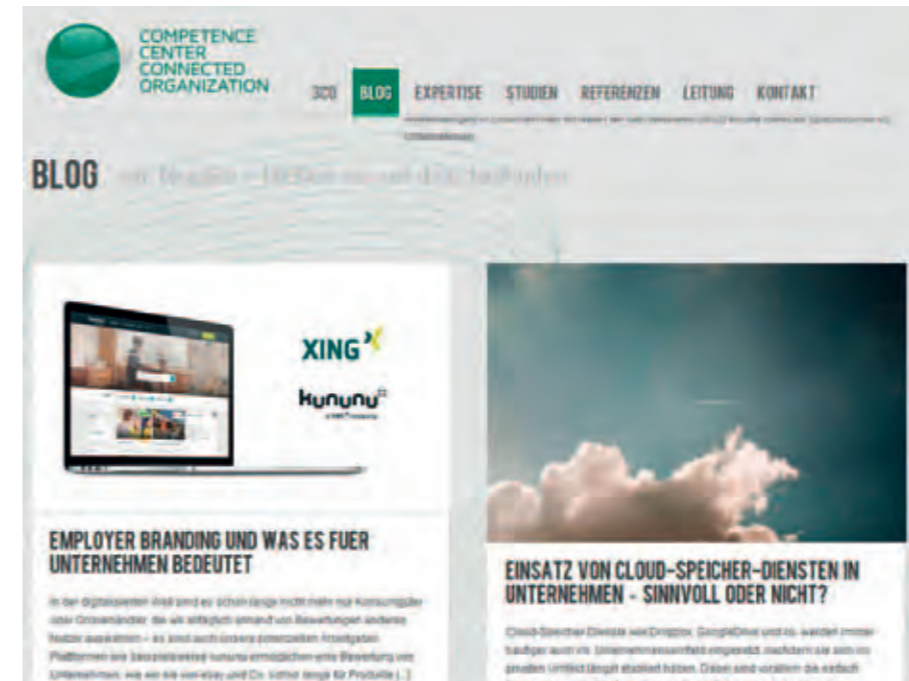
research projects and to share their knowledge on joint practice projects. Moreover, grounded on former common workshop activities at the "Jahrestagung der Gesellschaft für Informatik", the involved partners decided to publish a book on the topic of "gamification". The book will include both research articles and success stories provided by practitioners on aspects such as e-learning, collaboration, innovation management, and customer relations.

Further more, in 2014 two student projects, both in cooperation with the large German gas trading company WINGAS GmbH, were completed. The first group of students was assigned the task of extracting customer information for the B2B market from publicly accessible social media. The students developed a concept to rate the acquisition potential of social network profiles. Further more, they developed an interface to integrate social media data into an existing CRM system. The second project finished in August 2014. The students developed a web-based mobile application to monitor and control critical gas trading market communication processes. The app

supports the 24/7 shiftworkers of Wingas to control and identify bugs. The mobile app needs to fulfill high-quality standards due to sensitive penalties which were issued for faults.

Of course, the Competence Center itself uses social networks as well. The 3CO hosts profiles on Facebook and XING. The Facebook group "Community – Competence Center Connected Organization" is used to share information about the latest projects and to keep in contact with partners and interested people. Moreover, the 3CO pursues a blog in which the 3CO staff regularly posts about trends and technologies and their impact on organizations. Topics include, for example, "the value of employer branding for enterprises" or "pros and cons of mobile device management system in enterprises".

In 2014 joint research articles in the field of mobile technologies, particularly between the Jacobs University of Bremen and the University of Muenster, were published in international journals (e.g. Mobile Information Systems) and were presented at in-



Blog of the Competence Center Connected Organization – www.connected-organization.de

ternational conferences (e.g. Human Computer Interaction (HCI)).

In 2015 3CO will continue working together with companies to strengthen the interconnectedness between research and professional practice.



Student's Project – Mobile Applications
Kick-off meeting @ Europe's largest natural gas storage

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DRIVER Consortium kick-off meeting in Madrid

CRISIS MANAGEMENT

The Competence Center for Crisis Management (C³M), founded at the end of the year 2013, integrates the research efforts of the ERCIS network in the domain of crisis management and humanitarian logistics. The main objective is to identify relevant challenges and gaps in current practices of humanitarian organizations and to find adequate solutions in the area of information systems and supply chain management research.

C³M investigates the role of Information and Communication Technologies (ICT) for logistics and supply chain management in crisis situations. Logistics is the main driver in delivering the right relief items and services as fast and appropriate as possible to meet the needs of the disaster-affected population. The application context of disaster relief sets specific requirements for the use of ICT as an enabler of disaster management. The activities of C³M primarily aim at improving the efficiency through the design and evaluation of appropriate information systems.

C³M integrates a collaborating network of humanitarian logistics organizations, innovative information systems and renowned research groups on crisis management and humanitarian logistics. To ensure the relevance of C³M's efforts, all initiatives are grounded by continuous involvement of practitioners. On the other hand, all C³M members reflect their procedures within their specific research communities to ensure rigorous research. In this way, C³M is committed to contributing to an increase in the effectiveness and efficiency of humanitarian operations.

RESEARCH FIELDS

C³M concentrates on six research topics within the field of crisis management and humanitarian logistics, starting with the visualization of processes within humanitarian organizations up to coordination of humanitarian supply chains in disaster relief operations.



C³M research fields

The research field visualization elaborates on the modelling of humanitarian supply chains. The development and deployment of an IT-supported reference model for humanitarian supply chains provides a common terminology, predefined tasks and aligned processes. Moreover, the visualization has the potential to ensure reusability and adaptability whilst respecting the end-user's requirements.

The C³M's analysis research area concentrates on performance measurement and management. The development and deployment of a performance measurement system for humanitarian logistics establishes prerequisites for a process-driven, modular, adaptable framework. Progress within this research area also enables crisis management to benefit from an open objective- and process-related KPI set, relevant management approaches and information systems.

In the area of IT support, research is conducted within the development and application of an IT requirements profile. The requirements profile is used to compare and evaluate existing supply chain management software for humanitarian logistics as well as for the design and deployment of missing IT tools.

The assessment area focuses the design and development of assessment tools for humanitarian logistics planning. Providing a method to quickly filter and prioritise the assessment information that is relevant for the tasks at hand represents an essential information advantage for those authorities who ultimately need to decide how available resources can be best allocated.

Referring to the best allocation of resources, the research area on optimization deals with the investigation and adjustment of appropriate operations research approaches for humanitarian logistics. Research within this topic concentrates on typologies of operations research methods or optimal stock relocation under uncertainty in post-disaster humanitarian operations.

Last but not least, the coordination research area is concerned with the governance of ad-hoc networks in crisis management.

SELECTED PROJECTS

The NITIMesr project is an Initial Training Network administered by the Marie Curie Program and collaborates with the Graduate School on Networks, Information, Technology and Innovation Management (NITIM). Within NITIMesr, the C³M is represented by the Chairs for Information Systems and Supply Chain Management (Prof. Dr.-Ing. Bernd Hellingrath) and Interorganizational Systems (Prof. Dr. Stefan Klein), both from the ERCIS headquarters in Münster. From the perspective of the C³M, the main focus lies in the design and development of an integrated supply chain management system for humanitarian logistics as well as the investigation of applicable coordination approaches within humanitarian supply chains.

The DRIVER project is the biggest FP7 project; it copes with driving innovation in crisis management for European Resilience. In the DRIVER consortium the C³M is represented by the Chair for Information Systems and Supply Chain Management (Prof. Dr.-Ing. Bernd Hellingrath). A distributed pan-European test-bed will be built for experimentation and the most useful new tools will be collected in a comprehensive Crisis Management portfolio at the end of the project. Within DRIVER, the main focus of C³M lies in the application and evaluation of tasking and resource management tools in the context of humanitarian supply chains. For this purpose a reference model and performance measurement system for disaster relief logistics will be applied for different humanitarian networks and crisis scenarios. To enable an improved management of humanitarian supply chains, various setups will be modelled and simulated.

SELECTED PUBLICATIONS

Blecken, A.; Hellingrath, B.: Supply Chain Management Software for Humanitarian Operations: Review and Assessment of Current Tools. In: Proceedings of the 5th International Conference on Information Systems for Crisis Response and Management ISCRAM2008. Washington, DC, USA, 2008. S. 342-351.

Blecken, A.; Schulz, S.; Hellingrath, B.; Dangelmaier, W.: Humanitarian Supply Chain Process Reference Model. International Journal of Services, Technology and Management, 12(4): S. 391-413 2009

Widera, A.; Hellingrath, B.: Performance Measurement Systems for Humanitarian Logistics. In: Proceedings of the 23rd Annual NOFOMA Conference. Harstad, Norway, 2011. S. 1327-1342.

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Hellingrath, B., Link, D., & Widera, A. (Eds.) (2013). Managing Humanitarian Supply Chains: Strategies, Practices and Research (1st ed.). Literature Series: Vol. Economics and Logistics. Bremen/Germany: DVV Media Group GmbH.

Link, D.; Hellingrath, B.; De Groeve, T. (2013) Twitter Integration and Content Moderation in GDACSmobile. In: Proceedings of the International Conference on Information Systems for Crisis Response and Management (ISCRAM) 2013 Baden-Baden, Germany.

Widera, A., & Hellingrath, B. (2013). From Process Analysis to Performance Management in Humanitarian Logistics. In Hellingrath, B., Link, D., & Widera, A. (Eds.), Managing Humanitarian Supply Chains: Strategies, Practices and Research (1st ed., pp. 244-264).

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E-GOVERNMENT

The E-Government Competence Center, which was founded in 2004, has a long tradition in process management both within governments as well as between governments and other organizations. Our research focuses on how individuals use e-government technology. The main tasks in 2014 included a project on Federal Information Management, a study of the German e-government law – both funded by the German Ministry of the Interior, and research on the governments' social media activities.

Project on Federal Information Management

Public administrations often face a heterogeneous information and information technology landscape. The FIM project aims to build up an information management that supports information exchange across all federal levels and between public administrations and citizens. Together with colleagues from Munich and Berlin, we developed a framework for integrating different kinds of information (i.e. service descriptions, process descriptions, and forms) and a procedural model to create and maintain the integrated information. After finishing the conceptual work in 2013, the project is now in the evaluation phase. We already created about 20 reference forms, which we embedded in harmonised service descriptions and reference processes.



In the context of FIM, the University of Münster offered a joint undergraduate seminar in cooperation with the Technical University of Munich. The participants worked in teams consisting of both students from Münster and from Munich. Their task was to prepare and present FIM-related topics. Except for the kick-off meeting, which took place in Munich, and the final presentation, which was organised in Münster, the students collaborated virtually.



Study of the German e-Government Law

The German e-government law (EGovG) was introduced in 2013 with the aim of reducing legal barriers to e-government services. In a study funded by the German Ministry of the Interior, we analyzed the challenges, the potentials, and the status quo of implementing the EGovG in Germany. Based on the analysis, recommendations for action were derived that help to create a seamless, user-oriented, trustworthy, and open e-government in Germany. In doing so, five key enablers for a successful e-government, namely digital document handling, secure electronic communication, electronic identify, service transparency and electronic payment, were derived.

Research on Governments' Use of Social Media

Based on the previous research of governments' use of social media, in which we analyzed governments' behaviour from an external perspective, during the last year, we paid special attention to citizens' and governments' perceptions and intentions to use social media for e-government services. This research stream has especially been driven by Sara Hofmann, who received her PhD in November 2014 and now co-leads the E-government Competence Center together with Jörg Becker and Michael Räckers.

PUBLICATIONS

Ahrend, N., Wolf, P., Räckers, M., Dentschev, A., & Jurisch, M. (2014). Federal Information Management – Context and Effects. In: Proceedings of the 44. Jahrestagung der Gesellschaft für Informatik (INFORMATIK 2014), Stuttgart, Deutschland.

Folmer, E., Heddier, M., Matzner, M., Räckers, M., & Becker, J. (2014). A Method for Managing IT-Based Boundary Objects: Design and Application in the Public Sector. In: Proceedings of the European Conference on Information Systems (ECIS 2013), Tel Aviv, Israel.

Hofmann, S. (2014). Just Because We Can – Governments' Rationale for Using social Media. In: Proceedings of the European Conference on Information Systems (ECIS), Tel Aviv, Israel.

Lang, M., & Hofmann, S. (2014). Is Facebook Ready for Open Government? A Quantitative Analysis amongst Its Users. In: Proceedings of the Multikonferenz Wirtschaftsinformatik (MKWI), Paderborn, Deutschland.

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ERCIS LAB RUSSIA

ERCIS Lab Moscow at the National Research University Higher School of Economics was formed in 2011 to help Russian academia and industry clients to extend ideas and research directions on Information Systems topics with ERCIS members, to create a direct link between academic research and product development and industry cooperation.

In 2013, ERCIS Lab Moscow was renamed **ERCIS Lab Russia** as the result of the integration of HSE Moscow and HSE Nizhny Novgorod research directions.

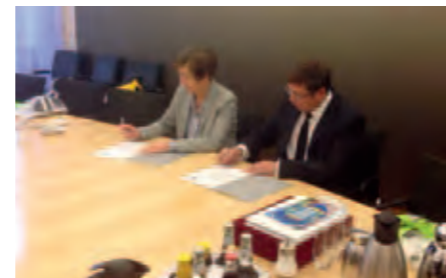
The following major achievements were accomplished by ERCIS Lab Russia in 2014:

Working Visit from the Voronezh State University, Russia, and Signing of the Letter of Intent

With the great support and mutual cooperation initiated by of ERCIS Lab Russia, on June 23–25, the rector of the Voronezh State University (VSU) Dmitrii Endovitskii, Prorektor Oleg Grishaev, dean of the Faculty of Applied Mathematics Alexander Shashkin, and the head of the IT Business Laboratory Alexey Derbushev came for a working visit to the University of Münster. During the visit the Letter of Intent (LoI) was signed between the rector of the University of Münster Prof. Dr. Ursula Nelles and the rector of the VSU Dmitrii Endovitskii. Under the LoI, both universities expressed their desire and intent to proceed with the development of joint educational and research activities, as well as elaboration of student and academic exchange programs.

In the summer term 2013, the Department of Information Systems and Information Management successfully conducted an international joint project seminar EDUPASS, in which the students from both the University of Münster and the VSU worked on the analysis and adaption of the academic programs at Voronezh State University to the current industry needs and European standards, as well as an investigation of promising new business areas for T-Systems CIS in Russia.

Having this successful cooperation experience, the Department of Information Systems of the University of Münster and the Faculty of Business Informatics of the VSU signed a Memorandum of Understanding, which allows further development of exchange programs for undergraduate and graduate students.



WWU Muenster and VSU memorandum of understanding ceremony



Signing ceremony and meeting in the Rectorat of SPbPU

Visit of ERCIS to St. Petersburg Polytechnic University (SPbPU), Russia, and Signing of the Letter of Intent

On April 1–4, Prof. Dr. Dr. h.c. Jörg Becker and Dr. Dr. Victor Taratoukhine came for a working visit to St. Petersburg Polytechnic University (SPbPU). During that visit, the Letter of Intent was signed between the rector of SPbPU Prof. Dr. Andrej Rudskij and Prof. Dr. Dr. h.c. Jörg Becker. Under this letter, both parties express their intent to cooperate with regards to the future research activities, exchange of students as well as the future integration of SPbPU into ERCIS Lab Russia for the development of mutual research on Enterprise Architecture topics.

During the second half of the visit, Prof. Dr. Dr. h.c. Jörg Becker and Dr. Dr. Victor Taratoukhine participated in the international conference “Enterprise Architecture”. Prof. Jörg Becker also held a lecture for master and doctorate students of the Engineering and Economics Institute of St. Petersburg Polytechnic University.

ERCIS Lab Russia Participated in a Number of Leading International Conferences in 2014:

- Official meeting of Bauman Moscow State Technical University and Russian Industry representatives



Meeting at Bauman Moscow State Technical University

- RuSciTech (Association of the Russian-Speaking Science and Technology Professionals) Forum 2014, ASU, Tempe, Arizona, March 10–11, 2014

- International Conference on Artificial Intelligence and Systems, Divnomorskoye, Black Sea Coast, Russia, September 2–10, 2014

- ERCIS Lab Russia continuously improves its position of excellence, and during 2014 it extended its scientific network and ERCIS partnership, benefiting overall from the worldwide reputation of ERCIS and a great knowledge and experience of Russian academia and industry

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ERP

Within the ERCIS network, the Center provides theoretical and applied research in ERP area, supports ERP-related customer-oriented consulting and case studies development for student teaching in Production Planning and Control, and other related areas.

Competence Center Mission: Understanding the design and management of business software and integrated aspects of enterprise software and software-related services.

Some of the key activities of the Competence Center in 2014 are:

- On December 5–6, 2013, the Russian ERCIS partner in Nizhny Novgorod organised the workshop “Emerging Trends in IS” in the cooperation with SAP University Alliance CIS and SAP Labs CIS. Executive Director of SAP Labs CIS Dmitrij Armjakov, Program Manager of SAP University Alliance CIS Yuriy Kuprijanov, together with academics from different Russian universities including Prof. Dr. Dr. h.c. Jörg Becker from the University of Muenster, took part in this workshop. The main objective of the workshop was to provide leading researchers and industry practitioners with a platform to present and discuss the most recent innovations, trends, results, experiences, and concerns in several perspectives of Information Systems.



Participants of the International Workshop in Nizhni Novgorod

- Under the umbrella of the ERCIS Competence Center ERP, an international team of seven students from the University of Münster, Germany, and the Higher School of Economics, Nizhny Novgorod, Russia, worked together within the project seminar called eSMB with SAP SE. The main target of this project seminar was to develop an innovative curriculum for teaching the business management system SAP Business One to university students around the globe, and to create a strategy to promote SAP Business One to universities.

On June 4, 2014, the team got the chance to travel to Waldorf, Germany, to present its intermediary results at the SAP Headquarters to Dr. Kristof Schneider, Global SAP University Alliance Program Manager. The final results were presented to the academic community in September 2014 at the SAP Forum in Berlin, Germany.



eSMB team at SAP HQ



19th Annual SAP University Alliance Academic Conference SAP and ERCIS participants at an official photo session

- ERCIS Competence Center ERP took part in the 19th Annual SAP University Alliance Academic Conference that was held in Berlin on September 9–10, 2014. This year’s conference theme was “Cloud Meets Data Driven Processes – New Horizons and Entrepreneurial Opportunities in Big Data”. Within this conference, the ERCIS project seminar team eSMB presented its final results to the SAP academic audience.



SAP Innovation Center Potsdam
Dr. Dr. Victor Taratoukhine (ERCIS) and
Dr. Oleksandr Panchenko (SAP)

Academic Partners:

University of Wuerzburg, Cranfield University, University of Cologne, Higher School of Economics, ERCIS Lab Russia, SKOLKOVO School of Business, TU Wien, TU Munich

Industry Partners:

SAP, SAP Innovation Center Potsdam, T-Systems AG, T-Systems CIS, SAP Lab network



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SERVICE RESEARCH at the European Research Center for Information Systems

SERVICE SCIENCE

The Service Science Competence Center is ERCIS's major organizational unit for conducting research and industry projects in the area of service management and service engineering. With a team of two post-doctoral researchers and 12 research assistants, the Service Science Competence Center is currently the largest third-party-funded research group in the ERCIS network.

SERVICE SCIENCE MANAGEMENT AND ENGINEERING

The emergence and proliferation of the Service Economy has changed the way in which the creation of value is perceived throughout various industry sectors and societies. Some current manifestations are integrating industrial machinery with customised service offerings (customer solutions, product-service systems), offering aircraft turbines (power by-the-hour) or software applications (as-a-service) without selling physical goods, or providing content on mobile platforms. Theories and artifacts related to service are reflected in the emerging academic discipline of Service Science, Management and Engineering (SSME). Research in SSME is focussed on understanding and facilitating the creation of value in service systems, involving interactions of service providers and service customers.

MISSION OF THE SERVICE SCIENCE COMPETENCE CENTER

The mission of the ERCIS Service Science Competence Center is two-fold. On the one hand, we strive to understand the nature and impact of service orientation on commercial businesses, on the public sector, and on society in general. On the other hand, we contribute to further shaping the course of the service economy by designing new business solutions and software artifacts. One focal point of our research is facilitating service orientation in close cooperation with high-tech manufacturing companies. We have also been in frequent contact with banks, retail companies and facility management service providers.

Our research is equally dedicated to research excellence and to providing results that companies can use to further shape their businesses in the service society. We achieve this goal based on a network of excellent researchers in the global ERCIS network. More information is available at: <http://service.ercis.org>



CURRENT RESEARCH PROJECTS

EOL-IS



An immature battery technology appears to be the crucial obstacle for a large diffusion of electric mobility in Germany. One core argument is the high initial costs of eCar batteries, which cause electric vehicles to be about three times more expensive than vehicles with a compression ignition (CI) engine. The still-small number of electric vehicles conversely impedes realizing economies of scale to a full extent. This deadlock prevents the comprehensive diffusion of electric mobility. Therefore, a reduction in the Total Cost of Ownership (TCO) of the battery is an essential precondition for the electric mobility's diffusion.

Currently, it is assumed that an electric car battery still has about 80 % of its original capacity left when it reaches its End-of-(First) Life (EOL). Thus, to reduce the TCO the battery can be reused in a different or less-demanding scenario. For instance, a battery or its components could be used to propel smaller vehicles, to store green energy in stationary applications such as in smart homes, or to power small electronic devices such as technical equipment used at construction sites.

The EOL-IS project's goal is to develop service innovations for the phase after the eCar batteries' EOL, based on the chemical and technical features of eCar batteries. Moreover, a decision support system is conceptualised and implemented to help

a decision maker find the best second-life application for each single battery. In this process, the physical and chemical features and the battery's history of usage, its condition and further economic, ecological and judicial information will be considered. Once an appropriate scenario has been identified, services can be configured and bundled with the battery as an integrated customer solution. This solution is designed to fit the unique requirements of the reuse scenario and must be acceptable for customers.

More information is available at: <http://www.eol-is.de>

CrowdStrom



As long as the existing battery technology does not allow for longer ranges of electric vehicles, a widespread charging infrastructure is necessary to make electric vehicles suitable for the daily use. The availability of public charging infrastructure has a direct influence on sales of electric vehicles and vice versa. Since public charging infrastructure and the number of electric vehicles are growing slowly, the project CrowdStrom is trying to breach this cycle by making the existing private charging infrastructure accessible for the public. Private charging infrastructure is growing faster than public charging infrastructure because charging spots are typically installed at home with the purchase of an electric vehicle.

CrowdStrom is a project that aims at developing a new business model for the electric vehicle charging infrastructure. Through involvement of charging stations owned by private persons, the business model addresses challenges of the current infrastructure development for electric vehicles.

The CrowdStroms project's goal is to develop an innovative service that, encourages private people to set up charging stations and grant access to third parties. This crowd-sourced concept faces the challenges of developing new, standardised processes that cover the entire range of requirements for setting up and operating a charging infrastructure for electric vehicles. The project's analysis on customers' willingness to pay enables the creation of an incentive system. Additionally, the CrowdStrom project includes a detailed analysis of the legal difficulties that occur as customers become suppliers. The implementation of a software application to assist service processes and the flow of information among participating parties will provide the technical foundation for the concept. Operating this system and the integration of all partial services create an innovative business for supply and infrastructure-providing companies, resulting in a public charging network empowered by existing private charging stations.

More information is available at: <http://www.crowdstrom.de>

COOPERATION EXPERIENCE



Today, successful innovations in business models increasingly take place in the form of product-service system (PSS) networks that allow combining the skills and performance contributions of different partners of the value chain into new and innovative customer solutions. Potential benefits related to the product-service system include better differentiation from competitors, increased customer satisfaction and retention, and enhanced resource utilization throughout the network.

In order to coordinate the activities of product and service providers within a product-service system network better, the project's main goal is to design a method that supports the driven demand. This method will be characterised by its capability to visualise the planning of the back-office integration in PSS networks and by its suitability to allow a most direct experience of the network as part of a software-based test environment. Application domains are the planning and operation of facilities and the mechanical engineering. A parallel adaptation and development of domain-specific reference models will show how actors can match their tangible and intangible offerings along the product life cycle in an innovative way, for cooperatively achieving the demanding economic, social, and environmental objectives. Parts of these reference models will be integrated into the modelling environment as templates or best practices knowledge, allowing for an effective application of the newly designed methodology. Overall, the development efforts resort to the basics of modelling in the Information Systems discipline and the approaches of model-driven development and configurative reference modelling.

More information is available at: <http://www.cooperation-experience.de>

NETWORKED SERVICE SOCIETY



Networked Service Society (NSS) is a multi-national project funded by the International Bureau of the German Federal Ministry of Education and Research (BMBF). The project lasts from July 2010 until the end of 2014 and is aimed at establishing and strengthening long-term collaboration structures with institutions in the Asian-Pacific region. The project consortium is formed by the University of Münster (WWU, Germany), Queensland University of Technology (Brisbane, Australia), Ulsan National Institute of Science and Technology (UNIST, Ulsan, Korea), and the University of Waikato (Hamilton, New Zealand). Project partners collaborate in the areas of Joint Research, Joint Education and Joint Industry Projects.

Research collaboration in different areas of service phenomena was further extended in 2014, involving all project partners. Core areas of research in 2014 consisted of Process Mining in the Service Sector (UNIST, WWU), utilization of social media in local public administrations (University of Waikato, QUT, WWU) and IT capabilities for digital innovation (QUT, WWU).

Mutual research and networking visits were conducted in 2014: Martin Matzner, Daniel Beverungen and Armin Stein (WWU) visited UNIST, and Sebastian Köffer and Elena Gorbacheva (WWU) visited QUT and the University of Waikato. Moreover, in 2014 Dr. Armin Stein (WWU) visited all three partner universities in order to enhance networking

of the research groups by identifying fitting research profiles of the involved IS faculty members. In turn, Minseok Song (UNIST) and Eric Deakins (University of Waikato) visited WWU in 2014.

Further opportunities for undergraduate and graduate student mobility were created in 2014. Two students from Münster did an exchange semester at QUT and one wrote his Master thesis at QUT with Jan Recker. Since a student exchange agreement between UNIST and WWU was established in 2012, three students from WWU did an exchange semester at UNIST, whilst two students from UNIST studied at WWU.

A key objective of the project is establishing a Joint Ph.D. program between the QUT and WWU. Elena Gorbacheva (WWU) during her stay at QUT worked on the development of an overarching agreement that was critically discussed with and approved by the decision makers of both universities, such that we intend to bring the program to life in early 2015.

Because the main objective of the NSS project is to make the research collaboration between the partners sustainable, the project proposal “Propelling Business Process Management by Research and Innovation Staff Exchange” (RISE_BPM) has been submitted and was favourably evaluated under the Horizon 2020 EU funding programme. The RISE_BPM project partners outside Europe include the two NSS consortium members QUT and UNIST, as well as Federal University of the State of Rio de Janeiro (Rio de Janeiro, Brazil). The European project partners, in addition to WWU as the project coordinator, are the University of Vienna (Vienna, Austria), the University of Seville (Seville, Spain), the Eindhoven University of Technology (Eindhoven, Netherlands) and the University of Liechtenstein (Vaduz, Liechtenstein). The RISE_BPM project aims at networking world-leading research institutions and corporate innovators to develop new horizons for Business Process Management (BPM). All of the institutions involved have a strong research profile in BPM and

we believe that RISE_BPM will create an ideal research environment to ensure sustainability and further extension of the collaboration ties established during the NSS project. It is planned to fund RISE_BPM for four years starting from May 2015.

More information is available at: <http://www.networkedservicesociety.net>

“Hybride Wertschöpfung im ZukunftsLAND”

“Hybrid Value Creation” refers to offering custom-fit solutions consisting of physical goods and value-added services, including consulting, maintenance, recycling service or even operating the entire solution “as a service”. Manufacturer that transform into providers of customer solutions may expect several benefits – higher margins, improved differentiation from competitors and superior customer retention. In recent years, Münster grew into one of the most significant global locations for research on “hybrid value creation”. WWU Münster and the Münster University of Applied Science developed models, methods and software tools of high scientific quality and immediate utility for the practice.

Against this backdrop, the goal of this project is to make the various research results achieved by the researchers in Münster applicable to the small and medium enterprises in the Münsterland region surrounding our city. The project will therefore develop frameworks to structure previous results, communication and educational material in order to transfer knowledge to the practitioners. We will further launch a roadshow and exercise round tables to bring together researchers and practitioners in the region.

ServDea



Enterprises often want to measure the productivity with which they produce their

services, yet are confronted with the complexity of the methodological apparatus for contemporary productivity management. This is particularly challenging for enterprises providing industrial services. Having their origins in mass production of standardised goods, the hybrid nature of today’s industrial products, which are often customised and combined with various other services such as maintenance, these enterprises are not well prepared to handle these types of products in productivity management.

The goal of the ServDEA project was to develop a new conceptual foundation for an approach to measuring service productivity and to implement this approach as a software prototype. Based on the Data Envelopment Analysis (DEA)—a sophisticated productivity measurement technique from the field of operations research—the productivities of different decision-making units, e.g. different service stations for a certain product, can be quantified comparatively by benchmarking these units against each other. The DEA also provides insights into the characteristics of each unit, thereby providing a starting point for reasoning about possible improvements. As the DEA allows for amalgamating a huge number of input and output factors in a single productivity model, it provides a comprehensive view on productivity.

ServDEA was completed in 2014, with the final version of the ServDEA software now being under further evaluation at industry partners. The project’s website contains a link to the ServDEA software, and is freely available for testing for interested parties. More information is available at: <http://www.servdea.de>

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CONTACT US

Please contact us for more information on our projects or for starting exciting new initiatives in the area of service science.



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SMARTER WORK

The **Competence Center for Smarter Work** provides research and transformation support in the area of Unified Communication & Collaboration (UCC) and Social Media. UCC as well as social media facilitate extended and richer modes of interaction amongst stakeholders. Customer relations as well as partner communities can be actively transformed by the introduction of UCC and Social Media. Furthermore, tools can be used to improve cooperation amongst employees, to strengthen social relations or to identify experts and specific information.

The integration of these technologies and related concepts into the workplace provides profound challenges and opportunities for organizational development and innovation. We engage in detailed multi-method workplace studies in order to gain deep insights into existing work practices. Based on the information and communication patterns (genre) and the relationship network of different stakeholders, we suggest scenarios for new work practices and transformation paths. In our scenarios for smarter work we also reflect the issues of corporate social responsibilities and employee well-being.

Community Platform Redesign for the German CIO Association



VOICE e.V., the German association of Chief Information Officers (CIOs) and IT managers, deploys a community platform to facilitate networking amongst its members. Indeed, the platform is closely tied to the association's business model and has been identified as a cornerstone of the association's development strategy. As the extent of communication and collaboration on the current platform has not met expectations, the executive committee has initiated a major redesign of the platform. We have been invited to join the (re-)design initiative, which aims at understanding the needs and distinct usage patterns of the user: the member organizations and specifically the CIOs. It involves not only an analysis of required properties for different usage scenarios but also a critical review of the governance structures and community developmental in a complex ensemble of service providers, the association's head office and the user community. Eventually, this initiative is about defining and enacting a strategic vision for the VOICE community.

Social Collaboration Platforms in Banking



Inspired by the success and popularity of social media like Facebook or Twitter, organizations aim to appropriate the logic of public social media to improve internal communication and collaboration. Companies introduce corporate social collaboration platforms, such as Microsoft Yammer or IBM Connections, to facilitate networking amongst employees and to improve information exchange. However, many of those initiatives fail to meet expectations. One reason is that the introduction of these platforms, which provide information and communication infrastructures for heterogeneous users, are managed like traditional software projects. Issues such as organizational culture, strategic alignment, community management and dynamics, governance, development and adjustment of usage practices are regularly neglected.

The GAD eG in Muenster, a major IT service provider for German banks, has developed a combined (technical) service and consultancy offering that is focussed on the deployment of IBM Connections in their customer base. In collaboration with the Communication and Collaboration Management Research Group (Prof. Dr. Stieglitz), we have contributed to the consultancy package by providing modules on the corporate context, strategic goals for the platform, use case development and performance metrics.

MyClou.de – The concept for Bring Your Own Application (BYOA)



A team of students in collaboration with Dimension Data and Cisco has developed a conceptual framework and prototypical implementation of a BYOA solution to support today's knowledge worker and their growing technological needs. A market analysis of Microsoft's, Apple's and Google's app stores was conducted in order, to identify the most relevant devices and apps for today's knowledge workers. Although most knowledge workers are satisfied with their desktop solutions, they are missing mobile solutions for self-organization, data management and communication.

MyClou.de follows a different approach than existing solutions. Instead of opening the corporate servers for the employee's personal devices, MyClou.de offers a virtualised workspace, which is independent of hardware ownership and administration. The prototypical implementation is based on a virtualised android platform. The platform centralises corporate applications and corporate data. Employees can access the solution via a web browser or a RDP client. It is centrally managed but independent of the client administration. The solution is platform independent and accessible via personal or company provisioned hardware. User data remain secure within the company's firewall and are never stored on the client hardware. Every employee has access to his or her own personalised Android virtual machine with native applications and a comprehensive WebRTC implementation for browser-based communication within the platform. With this WebRTC implementation, the users can communicate, share their screen or share their files without the need for further software or plugin installation.

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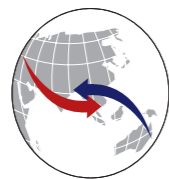
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Eric Deakins from the University of Waikato visits the ERCIS Headquarters in Münster



networked
SERVICE SOCIETY

› NETWORKED SERVICE SOCIETY

Networked Service Society (NSS) is a multi-national project funded by the International Bureau of the German Federal Ministry of Education and Research (BMBF). The project lasts from July 2010 until the end of 2014 and is aimed at establishing and strengthening long-term collaboration structures with institutions in the Asian-Pacific region. The project consortium is formed by such ERCIS member institutions as the University of Münster (WWU, Münster, Germany), Queensland University of Technology (QUT, Brisbane, Australia), Ulsan National Institute of Science and Technology (UNIST, Ulsan, Korea), and the University of Waikato (Hamilton, New Zealand). Project partners collaborate in the areas of Joint Research, Joint Education and Joint Industry Projects.

Research collaboration in different areas of service phenomena was further extended in 2014, involving all project partners: Prof. Dr. Minseok Song (UNIST) and Dr. Daniel Beverungen (WWU) actively cooperate in the area of application of process mining techniques for the analysis and improvement of service business processes; Dr. Eric Deakins (University of Waikato) and Sara Hofmann (WWU) do joint research on the use of social media in local public administrations; and Dr. Erwin Fieft (QUT) and Sebastian Köffer (WWU) work closely together aiming to develop concepts towards IT capabilities enabling organizations to drive digital innovation.

Mutual research and networking visits were conducted in 2014: Dr. Martin Matzner and Dr. Daniel Beverungen (WWU) visited UNIST, and Sebastian Köffer and Elena Gorbacheva (WWU) visited QUT and the University of Waikato. Moreover, in 2014 Dr. Armin Stein (WWU) visited all three partner universities in order to enhance networking of the research groups by identifying fitting research profiles of the involved IS faculty members. In turn, Prof. Dr. Minseok Song (UNIST) and Dr. Eric Deakins (University of Waikato) visited WWU in 2014.

Further opportunities for undergraduate and graduate student mobility were discussed during the visits of UNIST, QUT and the University of Waikato conducted by Dr. Armin Stein and Elena Gorbacheva (WWU) in 2014. In 2014 two students from Muenster did an exchange semester at QUT and one wrote his Master thesis at QUT with Prof. Dr. Jan Recker. Since a student exchange agreement between UNIST and WWU was established in 2012, three students from WWU did an exchange semester at UNIST and two students from UNIST studied at WWU.

One of the main outcomes of the NSS project in terms of institutionalization of the partnership between QUT and WWU is establishment of the Joint PhD program between the two universities (Program). Elena Gorbacheva (WWU) during her stay at QUT in May-June and November 2014 worked on the development of an Overarching Agreement for Joint PhD Programs. The Agreement was critically discussed with and approved by the decision makers of both universities. Moreover, in order to ensure the long-term sustainability of the Program, funding mechanisms for Joint PhD candidates were thought through.

The project long-term goal is to make the existing research connections between the partners sustainable, as well as to expand the partner network. In order to fulfil this goal, in 2014 a project proposal "Propelling Business Process Management by Research and Innovation Staff Exchange" (RISE_BPM) has been submitted by WWU and favourably evaluated within the Research and Innovation Staff Exchange (RISE) call for proposals under the Horizon 2020 EU funding programme. The RISE_BPM project partners outside Europe include the two NSS consortium members, namely QUT and UNIST, as well as Federal University of the State of Rio de Janeiro (Rio de Janeiro, Brazil). The project European partners, besides WWU as the project coordinator, include the University of Vienna (Vienna, Austria), the University of Seville (Seville, Spain), the Eindhoven University of Technology (Eindhoven, Netherlands), and the University of Liechtenstein (Vaduz, Liechtenstein). The RISE_BPM project is aimed at networking world-leading research institutions and corporate innovators to develop new horizons for Business Process Management (BPM). All the institutions involved have a strong research profile in BPM and we believe that RISE_BPM will create an ideal research environment to ensure sustainability and further extension of the collaboration ties established during the NSS project. It is planned that RISE_BPM lasts four years starting from May 2015.

CONTACT INFORMATION

The NSS project is coordinated by Daniel Beverungen, Armin Stein and Elena Gorbacheva (WWU).

Project contact persons are Prof. Dr. Dr. h.c. Jörg Becker (WWU); Prof. Dr. Michael Rosemann (QUT); Prof. Dr. Minseok Song and Prof. Dr. Han Gyun Woo (UNIST); and Prof. James L. Corner, Prof. Bob McQueen, and Dr. Stuart Dillon (University of Waikato).

For further information please visit:
www.networkedservicesociety.net



› ERCIS PHD COLLOQUIUM 2015 – NEW TRADITION BORN IN THE HISTORICAL CITY

Rome is a city worth visiting any time. We all know plenty of reasons to visit or revisit one of the most beautiful cities in the world. But among countless things Rome stands for, it is probably the many historical events that took place in Rome, which make the ancient city so unique. Now it appears that another historical event took place at the venues of the ERCIS member LUISS Libera Università Internazionale degli Studi Sociali Guido Carli – the first ERCIS-wide PhD Colloquium.

The idea of the seminar was to provide a multi-perspective feedback for doctoral students from ERCIS partner institutions in regard to their dissertation projects. Students from the 2nd and 3rd year of the PhD program were invited to present their dissertation projects in front of the fellow students and a dedicated committee chaired by Robert Winter and Fons Wijnhoven (visit the colloquium's website <http://dc.ercis.org> to see the full list of the committee members).

The colloquium took place on September 8–10 at the beautiful and sunny LUISS Guido Carli campus. Eleven PhD students have presented the current state of their dissertation in 20–30-minute presentations. The topics ranged from core IS topics such as strategic alignment to more computer science oriented ones such as algorithm selection. Each student received four feedbacks: two by the fellow students and two by the committee members. The students and the committee members were assigned to the seminar participants in advance. This allowed the reviewers to prepare the major part of their feedback beforehand based on a five-to-ten-page dissertation paper. The dissertation paper was submitted to the committee in advance and distributed among the assigned reviewers.

The feedback and discussion that took 30 to 40 minutes were certainly the central and the most memorable aspect of the seminar. The feedbacks were constructive and valuable. Having four perspectives on a dissertation project, of which two are provided by very experienced scholars is a luxury good for a PhD student.

The friendly atmosphere during the seminar was facilitated by several getting together events such as a visit of a local pizzeria, which, according to the local ERCIS members, was “one of the best in town”. A claim that was eventually supported by the smiling and satisfied faces of the seminar participants.

The meta-feedback on the last day of the seminar revealed gratitude to all those who made the seminar possible (especially the main organizers of the event Paolo Spagnoletti and Armin Stein and the volunteered committee members and committee chairs). The resume by all participants of the ERCIS PhD Colloquium was unanimous. The ERCIS PhD Colloquium should become a regular event – a tradition that would have its roots in the historical city of Rome.

› JOINT PROJECTS OF DIFFERENT ERCIS PARTNERS

- The joint project on “Reframing health-care through social media” started in 2012 by CeRSI-LUISS and the University of Agder will continue in 2015 and further exchanges of faculty members from the two ERCIS institutions are planned in 2015. The research team will present a paper at the Global Sourcing Workshop in La Thuile and is working on a journal publication.
- The joint project on “Simulation studies in IS research” started in 2013 by CeRSI-LUISS and IWI-HSG will continue in 2015 with an enlarged team and further exchanges of faculty members from the two ERCIS institutions are planned in 2015. The preliminary results of this project have been presented at ICIS 2013 in Milan and the team is working on a journal publication.

› NIELS F. GARMANN-JOHNSEN'S RESEARCH STAY AT THE UNIVERSITY OF ST. GALLEN

The University of St. Gallen and the University of Agder collaborate through the ERCIS network (European Research Center for Information Systems), so joint projects are of mutual interest. The contact was established through the mutual partners' key contacts: Prof. Dr. Robert Winter, Institute of Information Management at the University of St. Gallen, and Prof. Dr. Ing. Bjørn Erik Munkvold, Department of Information Systems, University of Agder.

The timeframe for the research stay was February 2014 through April 2014. The partners have an intention that this contact will be followed up with more mutual research exchanges for the collaborating team and other researchers from the University of St. Gallen and University of Agder.

University of St. Gallen, Institute of Information Management and the Health Network Engineering group by Prof. Dr. Tobias Mettler works on several projects in Management Information Systems and e-Health, among them a project concerning issues surrounding the implementation of service robots in a Swiss Hospital.

The implementation of service robots in a hospital can be seen as a process changing technology, where the process change affects several different departments, demanding a choreography of actions. So successful implementation of such new technology entails collaboration management at least at an inter-departmental level. There may be barriers to such implementations.

Niels F. Garmann-Johnsen (M.Sc.), an industrial Ph.D-candidate with the University of Agder, department of Information Systems, Norway, is doing research on process innovation, and focusing on collaborative process management, service innovation and e-Health. The stay was financed by: The Norwegian Research Council, the University of Agder, and the IT-company Go Mobile AS.

Garmann-Johnsen participated in some of the interviews and the process of data-collection in the Service robotics project, together with research fellows Yannic Domigall and Michaela Sprenger, both University of St. Gallen.

Some results from the research stay:

1. ICIS 2014 (forthcoming): Conference paper written by Garmann-Johnsen together with research fellow Michaela Sprenger and Tobias Mettler: “Service robotics in hospitals; a topic for IS-research?”
2. “E-health research in St. Gallen (Canton) and in Agder, a comparison”, written by Garmann-Johnsen, and submitted to a journal (acceptance pending at the time of this writing); with great help from the Health Network Engineering group, and applying models and theories developed by the Institute of Information Management at the University of St. Gallen.
3. Scandinavian Health Informatics Conference (SHI 2014): “Evaluation of e-health service designs”, written by Garmann-Johnsen together with research fellow Øyvind Hellang, University of Agder; also this with great help from the Health Network Engineering group, and applying models and theories developed by the Institute of Information Management at the University of St. Gallen.

› INTERNATIONAL WORKSHOPS AT THE CHAIR FOR INFORMATION SYSTEMS AND SUPPLY CHAIN MANAGEMENT



As part of the culture of internationalization fostered at ERCIS, the chair for Information Systems and Supply Chain Management regularly encourages visiting guests to offer workshops as a forum for exchange. In 2014, several Brazilian researchers visited the Chair and held workshops for interested ERCIS researchers for engaging knowledge transfer and to establish point of contacts for further research collaborations. Dr. Marcio Thomé, visiting researcher from PUC Rio de Janeiro, offered a well-received workshop on Sales & Operations Planning (S&OP) which is an integrated business management process which emphasizes the intensive collaboration between different organizational functions. In the context of the workshop, multiple potential collaboration options were identified – among others the use of Big Data collected in supply chains as one additional source for S&OP.

Similarly, Prof. Dr. Adriana Leiras (PUC Rio) and Prof. Joao Porto de Albuquerque (University of São Paulo) offered further insights about current state-of-the-art research in the fields of humanitarian logistics and disaster management. Presenting their research in dedicated workshops and the weekly ERCIS lunchtime seminar respectively, both welcomed the feedback and questions from participating members. Prof. Porto de Albuquerque moreover offered a multi-day Master and PhD seminar on the subject of “Disaster Mapping 2.0: Volunteered Geographic Information in Disaster Risk Management”, in line with the vision of ERCIS of being highly interested and engaged in teaching new researchers.

Within the scope of the DFG funded German-Brazilian research project “Integrating Intelligent Maintenance Systems and Spare Parts Supply Chains” (I2MS2C), Prof. Dr.-Ing. Enzo Morosoni Frazzon from the Universidade Federal de Santa Catarina (UFSC) in Florianópolis, Brazil visited the chair in the beginning of this year. Throughout his stay at ERCIS in Münster, Prof. Frazzon used the opportunities to discuss intensively his research on spare parts management and integrated supply chain planning approaches with the chair’s group. Within the scope of these workshops, Master and PhD students from both universities participating in the project got valuable feedback to be incorporated in their theses. Furthermore, this close and vivid collaboration within the I2MS2C project team pushed the project forward by collaboratively achieving new project results.



› SPRINGER BRIEFS IN INFORMATION SYSTEMS: SOLVING GRAND SOCIETAL CHALLENGES THROUGH INFORMATION SYSTEMS RESEARCH AND EDUCATION

The successful 2011 ERCIS Virtual Seminar on how the Grand Societal Challenges can be tackled by Information Systems research brought a long a series of good papers written by the participating graduate students. The papers have now been edited by Jan vom Brocke, Armin Stein, Sara Hofmann, and Sanja Tumbas. They were bundled and are about to be published as Springer Briefs in Information Systems. This book compiles the best papers from this course to stimulate further contributions of this kind:

Dominik Heddier and Agata Materek collaborate on how IS can contribute to environmental sustainability, considering eco-efficiency, eco-equity, and eco-effectiveness. Dominic Steffen and Rajesh Srinivasan deal with the exponential growth of the human population and ask how IS can be used to align the global resources with the growing demand. Adrian Dolensky and Stefan Laube discuss e-participation as a way to make policymaking more sensitive to long-term global perspectives. How the benefits of ICT, which is ubiquitous in some parts of the world but all but absent in others, can be made available to everyone is the topic of Tomal K. Ganguly and Klaus Fleerkötter’s paper. How decision support systems,

key elements of IS research, can be used to improve the capacity to decide as the nature of work and institutions change is discussed by Marina Maschler and Asin Tavakoli. Manuela Weiss and Ekaterina Tarchinskaya discuss how IT can support changing the status of women around the globe, especially in the STEM field (Science, Technology, Engineering, and Mathematics), where the under-representation of women in the workforce can have negative effects on the efficiency and quality of the work. Nadine Reuter explains how IS can support law enforcement officials in fighting “the dark side” as industrialization and the appearance of the internet provide companies and individuals, including those in organized crime, with means to communicate and synchronize in real time. Stefan Debortoli addresses the growing demand for energy as we move away from fossil fuels and seek to reduce power consumption, while governments invest increasing amounts of money in alternative green energy. Sandro Weber sketches out how IS can accelerate the diffusion of these ideas and innovations into practice. Finally, Nebojsa Milic and Krzysztof Oleszkiewicz take a look at the ethic difficulties global decisions bring to a world with more than 7.2 billion people and how IS can contribute to resolving them.

Find out more about the Annual ERCIS Seminar: <http://virtual-seminar.ercis.org>



The intention of ERCIS Virtual Seminars is to enrich education in the IS field by supporting students from the participating institutions in developing soft skills like internationalisation, virtualisation, and collaboration. It is believed that such skills are crucial for their future career. In 2013, ERCIS Virtual Seminars received an award for innovative teaching by the Association for Information Systems.

› JOINT ERCIS SEMINAR

After a successful 3rd ERCIS Virtual Seminar, in which students took part in the 2014 Hilti IT Innovation Competition (five out of 15 teams reached the finals and one of the teams took second place), in the 4th ERCIS Virtual Seminar it was decided to again have a look at the role of Information Systems (IS) in addressing the global challenges facing humanity. The same topic was investigated during the 1st ERCIS Virtual Seminar in 2011, resulting in publication of the best student seminar papers in SpringerBriefs – part of Springer's eBook collection that focusses on “cutting-edge research and practical applications across a wide spectrum of fields” (www.springer.com).



› SUCCESSFUL STUDENT EXCHANGE PROGRAMME ULSAN (울산) – MÜNSTER (원스터)

After the student exchange programme between the University of Muenster (WWU) and the Ulsan National Institute of Science and Technology (UNIST) was established in 2013, several students from both universities took the opportunity of conducting an exchange semester at either institution. First, Martin Westerkamp and Johannes Berger spent an away semester at UNIST. They concluded: “We would recommend every student to study abroad to meet new people, learn about other countries and make experiences in a foreign culture. Furthermore, we would recommend also to study in Korea to get to know about a different learning style and different ways of teaching”.

This year 45 students from seven universities (University of Münster, University of Liechtenstein, University of Twente, University of Minho, University of Bremen, LUISS Guido Carli University and Tuscia University) formed 15 teams. Each group received as a topic one of the 15 global challenges facing humanity, as identified by the Millennium Project (www.millennium-project.org). The students' task was to research the possible ways IS can contribute to tackling a particular challenge. The students had to find a way to virtually collaborate with each other, write the seminar paper together, and report on the results during mid-term and final presentations. Moreover, the students had to regularly reflect on their virtual collaboration experiences by participating in three online surveys.

Following up on this spirit of embracing cultural difference, Nils Tschampel made his very own awesome Korea experience in 2014. In the opposite direction, Soo Hyang Song and Mina Yoon from UNIST spent an away semester in Münster. We are proud to have enabled an exchange programme that has become well accepted by the students so quickly on either side of the globe!



› PROJECT SEMINAR WITH SAP IN NIZHNY NOVGOROD

The project seminar initiated by SAP University Alliances in the CIS region, Empowering Small and Medium-Sized Businesses (eSMB) in Emerging Markets through Integrated Business-Academia Knowledge Transfer, provided an opportunity for three students from the National Research University ‘Higher School of Economics’ (campus in Nizhny Novgorod, Russia) and four students from WWU Muenster to work in an international team environment on the task of developing course material for SAP Business One to provide students with the necessary education and to specifically promote SAP Business One to universities and future entrepreneurs using the Design Thinking approach.



› BPM WINTER SCHOOL 2014

In 2014 the Hilti Chair of Business Process Management (BPM) at the University of Liechtenstein for the fourth year in a row organised BPM Winter School in Vaduz, Liechtenstein. Students from various universities, including six students from the University of Münster, participated in the Winter School, where they could gain a comprehensive understanding of the BPM discipline during a five-day intensive course. The classes were held by BPM experts from both academia and practice. Participants had an opportunity to immediately apply the concepts and methods

learnt by working on case studies and exercises. The topics covered within the BPM Winter School include an introduction to BPM, methods using the BPM life cycle, process-aware Information Systems, alignment of BPM with corporate strategy, governance of BPM programmes and projects, human factors in BPM and culture in BPM. Furthermore, the students visited such local companies as Hilti and Swarovski and gained insights into their business processes. The participants also had a chance to establish new contacts and just have fun during evening social events.

› BENAIS SEMINAR

Utwente initiated and coordinated a Benelux course for PhD students in Information Systems. Eleven universities in the region participated by sending their PhD students and hosting a seminar in their city. From the ERCIS network, both Twente and Münster participated. Other universities in the course were Erasmus University, Rotterdam School of Management, Universiteit Gent, Universiteit Antwerpen, Rijksuniversiteit Groningen, KU Leuven, LIRIS, TUDelft, Tilburg University, VU Amsterdam and Utrecht University. PhD students gained the unique experience of meeting 11 Information systems groups, learning about their research and getting to know 11 vibrant cities and each other! The course is planned to take place again in 2014–2015.



› ERCIS@(ILE)CIS

ERCIS again organized meetings at the two large conferences of Information Systems research: the International Conference on Information Systems (ICIS) in Milano, Italy, and the European Conference on Information Systems (ECIS) in Tel Aviv, Israel. As “having a glass of wine or beer together is often way more efficient for collaboration than a whole day of talks” (as Armin uses to say), the meetings were again very fruitful and positive for the people attending. It took ten minutes at ICIS to set up the team of Faculty members for the Doctoral Consortium that took place in Rome in September this year. We are especially happy to also having been able to include our Alumni Axel Winkelmann, who did both his PhD and his habilitation at the University of Münster. He is now Full Professor at the University of Würzburg in Germany.

The meeting in Tel Aviv started with an ECIS 2015 Programme Committee Meeting, where we used the opportunity to start the preparations for the conference. Afterwards, the ERCIS meeting was a combination of around forty people from our ECIS Programme Committee, ERCIS members, and ERCIS Alumni! Another sign that we are not a closed-shop network...

After ECIS, we had the opportunity to take our Annual Reports to the lowest point on earth, to the Dead Sea (-402 m). Challenge: Who will send us a picture with you and the Annual Report taken on the highest point on earth?

› ERCIS ADVISORY BOARD MEETING 2014 IN MÜNSTER

In September, the annual ERCIS Advisory Board Meeting took place at the ERCIS headquarters in Münster. Before starting off with the actual meeting, the participants met the evening before in a Tapas bar in Münster to celebrate the 10th anniversary of the network. After this nice and informal get-together, researchers from the ERCIS headquarters and representatives of the member companies arvato Bertelsmann, Johannes Räckers GmbH & Co. KG, PICTURE GmbH, owncloud, and saracus, as well as invited guests from the Ford Motor Company and GaD met on the Leonardo-Campus for inspiring talks and discussions on various topics.

After a short introduction by the academic director Jörg Becker, Armin Stein, the managing director, presented a recap on the ERCIS activities in 2014. Furthermore, Gottfried Vossen gave an overview about the Executive Master Information Management offered at the University of Münster. Besides those presentations, we had two interesting talks on current research projects at the ERCIS headquarters: Stefan Schellhammer working at the chair of Stefan Klein presented results from a project on technostress. His talk was followed by a lively discussion about how to avoid stress caused by too much information on too many channels, constantly disrupting work processes.

Furthermore, Stefan Stieglitz from the Communication and Collaboration Research Group and Andrea Uphues from GaD, an IT-provider for the financial sector, gave an interesting talk about the use of social software in companies. Following up on their presentation, Lars Ehlers from the Ford Motor Company gave insights on the use of social media within Ford.

All in all, the ERCIS Advisory Board Meeting 2014 was a further step towards a lively network and a fruitful dialogue between research and practice. Both sides left with a lot of new ideas for future collaborations and we are all looking forward to the next Advisory Board Meeting in 2015!



› KILPISJÄRVI INFORMATION SYSTEMS SEMINAR (KISS)

Shamans for IS field since 1990

One of the most established research seminars in the field of information systems takes place in Kilpisjärvi, at the border of Finland, Sweden and Norway. The KISS information systems research seminar was established year 1990 by professor Ari Heiskanen, and has since then been running constantly already for 24 years. Since 2012 University of Turku has been the responsible organizer for KISS.

The Kilpisjärvi seminar traditionally takes place at the time of best spring snow and light in Kilpisjärvi. Year 2015 the seminar will take place 23.-27. March.

Trademarks of the Kilpisjärvi seminar are small workshop-like working (some 50 participants can be included), diversity of research topics, plenty of time for free discussions even in the outdoor settings of the magnificent mountain Lapland scenery, and mutual support and co-operation in research initiatives. One can say that we are also searching for the connection to the Lappish mythology, where Shamans represented individuals with extreme, often supernatural skills and harmony of life.

The seminar takes place at the Kilpisjärvi Biological Station of University of Helsinki. This will grant the participants a boutique hotel-level accommodation and services and modern telecommunications infrastructure.

The seminar has traditionally worked on invitation only-basis. The concept contains no immediate publications producing. Now we are on the way of establishing KISS as a yearly meeting place also for the ERCIS community, so be on alert when the invitation reaches you.



› ERCIS LAUNCH PAD 2014

The ERCIS Launch Pad is the IT business ideas competition of ERCIS that has been held annually since 2008. It serves as platform for founders and potential founders from all over Germany to present their ideas to a top-class jury. Its seventh edition was held on 26th November 2014. This year, participants could win cash and attractive prizes worth more than 10.000 euro. noventum consulting sponsored the prize for best innovation, NRW.Bank sponsored the prize for best commercial potential and GAD sponsored the prize for the best overall concept. For the first time, this year ERCIS itself sponsored a prize for the best scientific underpinnings.

The pitches were again part of a full-day program to booster the start-up spirit locally in Münster and in Germany at large. At first, Titus Dittmann, local entrepreneur and “god father of the German skateboarder movement”, talked about his vast experience as a serial entrepreneur and the pitfalls he has encountered over the years. Among other things, Dittmann has created the Titus brand and has launched skateaid.org, a foundation supporting international humanitarian projects for children and teenagers. This talk was followed by a business lunch during which participants and those interested in launching a start-up had the chance to exchange ideas amongst each other as well as with the jury and the speakers. The afternoon program started with the pitches of the finalists followed by a talk on how to finance start-ups. Last, not least Delia König – a member of last year’s winning team – presented the development of her business in recent months, before the event was concluded with the award ceremony and a get-together.

› 28th BLEED E-CONFERENCE



For the 28th Bled eConference our main tracks will explore the #WellBeing of people in the context of Internet, Social Media, Mobile and the Internet of Things. We wish to explore the opportunities to make life easier and more comfortable as a result from new technologies, including specific opportunities for the “young elderly” and senior citizens.

However, we are also interested in exploring the “dark side of e/m” and invite contributions that discuss the downside of big data, connectedness, quantified self and other innovations that may carry serious risks to individuals and society as well. We view the eConference as an excellent platform for finding the balance between the benefits and risks.

In 2014 we first joined forces with the “Living Bits and Things” conference on the Internet of Things resulting in an interesting blend of themes and researchers from different fields interacting in lovely Bled. We therefore especially invite papers that make the combination between these two worlds. In particular, but not limited to as we welcome also traditional topics related to any aspect of »e« research, we are interested into the following topics: eWellbeing, eWellness, eHealth, Internet of Things, Social Media and Big Data

Besides research tracks, the conference offers also business panels and workshops, EU projects’ presentations, Horizon 2020 day, Students’ ePrototype Bazaar and Graduate Student consortium. More information is available at the conference website:

<http://bledconference.org>



› NITIM GRADUATE SCHOOL

In the NiTiMesr project the chair for Information Systems and Supply Chain Management directed by Prof. Dr.-Ing. Bernd Hellingrath is part of the NiTiM Graduate School which is officially recognized as a European Graduate School by the European Commission under the Seventh Framework Programme (FP7). NiTiMesr brings together an interdisciplinary group of researchers and industry partners including the two leading European security clusters around the international court of justice in Den Haag and the Bavarian Security Cluster around the International Campus Aerospace and Security, BICAS, at the German EADS headquarters in Munich. Collaborating with the Interorganizational Systems Group (IOS) chaired by Prof. Dr. Stefan Klein both ERCIS partners work together with the graduate school and the regional learning circles known as Nex-GeN: The Netherlands and Germany Learning Circle, co-organizing monthly learning meetings among researchers. The seminar series aims to cross-fertilize knowledge and experience among scholars who can relate to the management of technology (MOT), crisis and security management (CSM) and information systems (IS) fields of inquiry. The seminars are designed to create an informal setting to present findings of recent research and share ideas through open discussion, with the hope of planting new seeds of scientific endeavor in MOT/CSM/IS research, whilst also allowing an environment where connections can be made and networks constructed.

In 2014, two doctoral graduate schools in Bergamo, Italy (June) and The Hague, Netherlands (November) were organized by the graduate school in order to provide doctoral students of the network the opportunity to present their research and receive feedback from active faculty of the schools, including both Prof. Dr.-Ing Bernd Hellingrath and Prof. Dr. Stefan Klein. Complementing these schools organized every six month, the regional Netherlands and Germany learning circle event was organized at the end of October by both ERCIS members with the main theme of “PhD Research: Philosophy and Practice”. In this context, one of the session was facilitated by Prof. Porto (University of Sao Paulo, Brazil) titled “What are the types of theory in Information Systems and what is the theoretical contribution I envisage for my research?”



› THE 7th SIGSAND/PLAIS EURO-SYMPOSIUM'2013, GDANSK, POLAND

The succeeding, already the 7th SIGSAND/PLAIS EuroSymposium on Systems Analysis and Design was held in Gdansk on September 25th, 2014. There were 3 organizers of this event, i.e. the Special Interest Group on Systems Analysis and Design (SIGSAND) of the Association for Information Systems (AIS), the Polish Chapter of AIS (PLAIS) and the Department of Business Informatics of the University of Gdansk. The EuroSymposium Proceedings were published in Springer series Lecture Notes on Business Information Processing (LNBI 193) with level of acceptance – 40%. The scholars from 6 countries were participating in Symposium – from USA, Czech Republic, UK, Ukraine, Germany and Poland.

The 7th EuroSymposium had the hybrid form – most papers were presented as videoconferences. The ERCIS logo was exposed on electronic and paper documents of EuroSymposium 2014. The next EuroSymposium will be held in Gdansk on September 25th, 2015.

› INTERNATIONAL CONFERENCE ON ORGANIZATIONAL SCIENCE DEVELOPMENT

The Faculty of Organizational Sciences organizes an annual international conference on the development of organizational sciences, held in March in Portorož, Slovenia. On various plenary sessions and research paper panels, numerous domestic and foreign participants from business, education, finance, public administration, tourism, healthcare and other sectors present their work in the field of organizational sciences.

March 19–21, 2014, Portoro, Slovenia
<http://fov.uni-mb.si/conference>

› ANNUAL METHODOLOGICAL COUNCIL ON BUSINESS INFORMATICS IN MOSCOW

On September 20 through 22, 2014 the National Research University “Higher School of Economics” (campus in Moscow, Russia) being a chair of business informatics methodical board in Russia hosted the annual methodical council on business-informatics. Over 65 participants from 22 different universities both from Russia and European countries joint the event. The first day was devoted to the S-BPM workshop organised by HSE Moscow, Technische Hochschule Ingolstadt and Technische Hochschule Darmstadt.

The second day of the event was devoted to educational and professional standards in the sphere of Business Informatics and the problems of academia-business relations. WWU Muenster representative, Dr. Dr. Victor Taratoukhine took part in the conference with a report on ERCIS Lab and SAP Academic Department activities in terms of cooperations with business partners in Russia.

› 17th INTERNATIONAL MULTICONFERENCE EDUCATION IN INFORMATION SOCIETY

We tend to be amazed by the world of technology. But there is also the fear that we might mystify it. This has been a common occurrence throughout human history. It was only when technology was assigned its proper place that its contribution became really significant – in economic sense as well. At this year’s VIVID 2014 conference, which was organized within the Information society multiconference for the 17th time, we learnt about some of the e-learning and teaching projects and discussed how to proceed, especially when it comes to how and what to teach.

October 10, 2014, Ljubljana, Slovenia
<http://vivid.fov.uni-mb.si/>

UNIVERSITÄT
LIECHTENSTEIN



Speakers at the European BPM Round Table

› BPM EUROPEAN ROUND TABLE

Business Process Management (BPM):
Driving innovation in a digital world.

On May, 15th 2014, the 2nd European Business Process Management (BPM) Round Table took place at the University of Liechtenstein. The European BPM Round Table was initiated and firstly organized in 2011 by the Technical University Eindhoven. At the University of Liechtenstein, more than 170 participants from 16 countries, including 11 presenters from eight countries and representatives from more than 40 companies, discussed current topics in BPM and the potential for driving innovations in a digital world. Impressions of the day and further information can be found on:

www.bpm-roundtable2014.eu

› STUDENT TRACK AT MKWI 2014

This track offered students the opportunity to actively participate in the MKWI. Master-level students are invited who are interested in either an IT-related position in industry or a PhD studies in information systems. The consortium will provide a platform where students, scientists and practitioners get together and discuss research topics on an expert level.



Study Trip Vienna

› STUDY TRIP VIENNA 2014

Master students from the University of Liechtenstein travelled to Vienna for lectures at the Vienna University of Economics and Business with the ERCIS partner Prof. Dr. Jan Mendling in April 2014. Besides the lectures, the student also explored the cultural sides of Vienna.



MKWI



› DESIGN THINKING WORKSHOP IN COOPERATION WITH SAP UNIVERSITY ALLIANCE

In March 2014 the Institute for Information Systems at the University of Liechtenstein hosted the Design Thinking Workshop in cooperation with SAP University Alliance. The workshop offered students the chance to learn Design Thinking – a human-centered, prototype-driven process for innovation that can be applied to product, service, and business design.

The winning team of the Design Thinking competition was invited to the SAP InnoJam@CeBIT in Hannover – the world's largest information technology event. Master's student Dominik Dür had the honour of presenting his group's solution on the SAP stage during the final.

› 1ST LIECHTENSTEIN HACKATHON

In September 2014 the Institute of Information Systems hosted the first Liechtenstein Hackathon organized by the IT Crowd Club Liechtenstein. Over the course of 51 hours – from Friday evening to Sunday evening – a mobile app for Liechtenstein was developed. The concept of the Hackathon is an internationally established format for the creation of a software application in a defined time frame, with as many software developers and designers as possible being involved. The Liechtenstein Hackathon 2014 developed an interactive app for tours through Liechtenstein (historic tours and guided excursions, circular walks with information, geocaching, interactive community rallies and also fictional stories like detective stories and murder mysteries). Some of those taking part stayed at the university overnight, in order to make the best possible use of the time available.

All in all, there were more than 25 developers taking part in the Hackathon. The app was presented to the public at the LIHGA – the Liechtenstein trade fair with 200 exhibitors from six nations.

› EUROPEAN DATA PRIVACY DAY 2014

On January 28th 2014 the Institute of Information Systems hosted an event in relation with the 8th European Data Privacy Day. Over 120 visitors attended the event with the title: „How healthy is Big Data? The chances and risks of collecting data in the health system.“ The talk by Claudia Leonie Wasmer, Data Protection Expert in the field of health insurance, was followed by a panel discussion with experts from the University of St. Gallen, the Liechtenstein Forum of Information and Communication Technology and the Liechtenstein hospital. The European Data Privacy Day takes place annually in collaboration with the Liechtenstein Data Protection Office.



European Data Privacy Day



INTERNSHIP OR EXECUTIVE ASSISTANT PROGRAM AT ARVATO – CURIOS? GET IN TOUCH WITH US!



INTRODUCING OURSELVES

Arvato is a leading European BPO provider. Over 65,000 employees design and produce customized solutions for business customers from all over the world, covering a wide range of business processes along integrated service chains. These include all services related to the creation and distribution of printed products and digital storage media as well as data management, customer care, CRM services, supply chain management, digital distribution and financial services as well as qualified and customized IT services.

OUR OFFERS

We design intelligent business processes to meet the challenges faced by our customers. Our solutions truly add value! Thanks to our operational expertise and innovative capacity, we will continue to develop unparalleled outsourcing solutions for our customers.

Become part of our team as an **intern for 3 to 6 months** or join us as part of our **Executive Assistantship** to get an up-close look at the work of our company management. You'll support our managers in their operational and strategic activities and work in the development of business activities as well as growth, investment, and sales strategies.

REQUIREMENTS

- Studies in Business, Informatics or related subjects
- First practical experience by challenging internships in Germany or abroad
- Entrepreneurial thinking, motivation and creativity
- Ability to manage projects
- Customer oriented

Interested? Find out more about us and the opportunities to work at Arvato on our career website careers.arvato.com or contact Karsten Kraume for more information.

We are looking forward to hearing from you!

Karsten Kraume
Member of the Board Arvato
CRM Solutions – Strategy

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ABOUT THE COMPANY

As a leading supplier of merchandise management systems, Bison offers whole solutions for retail. Bison has its headquarters in Sursee, employs approximately 600 staff and generates a turnover of over EUR 80 million. With over 30 years of market experience, Bison makes a reliable, secure contribution to the success of its customers. Each customer receives comprehensive and long-term support, with a focus on mutual trust and the protection of customers' IT investments.

Bison Retail Solution was specially developed for the retail sector. This solution covers the core processes for goods management and at the point of sale in full. By integrating a solution for traceability, Bison is offering a modern, up-to-date package of solutions. Based on the standard solution and individually tailored to customer preferences, considerable added value is created for the customer.

The Bison Retail expertise hub has comprehensive process knowledge and can provide and implement technical solutions, above all in all areas relating to multi-cross-channel. Bison Process enables a cross-channel sales approach and process management, including in-store, e-commerce and m-commerce. This industry model provides retail-specific processes. These can be individually configured to meet the company's requirements, without programming and without losing the release capabilities of the software. The open architecture of Bison Process ensures the company a high

level of investment protection; the software is always a step ahead of challenges in the market, both in terms of its technology and its functionality.

The product portfolio is complemented by POS solutions, electronic shelf labelling (ESL), mobile solutions for mobile end devices and digital signage solutions. Bison's modern POS solution can be perfectly integrated into existing system environments thanks to the modular structure and its exceptional flexibility. Thanks to the ESL concept, the headquarters or individual branches can respond quickly to changing market or price situations. The wireless base station simplifies internal processes and creates a direct connection between the shelf and POS. The high quality display is based on leading e-paper technology and guarantees optimum readability and no reflections on the screen. In addition, the electronic shelf labelling at the POS creates new possibilities in terms of information. This is used not only for product identification and price labelling, but also in combination with specially developed apps it also provides further useful services for the customer in terms of traceability of the product, product features, contents (allergens) etc. Thanks to the mobile solutions, normal Smartphone devices can be turned into powerful mobile hand-held devices. The scanning solutions include a barcode scanner, a magnetic card reader and an optional Bluetooth component to connect a mobile printer. The new RFID option vastly expands the range of uses. Thanks to standard or individually programmed applications, the devices offer a multitude of application possibilities, e.g. stocktaking, order creation, goods-in process and picking. Bison offers innovative communication options through digital signage. The solutions can be managed efficiently thanks to the simple user functionality and automatic interfaces. The iBeacon technology means that a range of services are possible in retail, for example targeted display of product information at the POS in real time, guidance of visitors when they enter the shops and display of personalised special offers. In principle,



this standard offers comprehensive support for mobile purchasing. It also makes it possible to carry out a detailed analysis of customer purchasing behaviour data.

Bison is a general contractor and covers all the processes of a modern retailer using integrated solutions, from the central ERP system to branch management to POS systems and digital signage.

TOPICS OF INTEREST

- Interest in European (sales) partnerships
- Development of new approaches to tackling retail-specific questions and problem areas bearing in mind the cloud approach
- Integration of the iPod, iPhone and iPad in operating procedures
- E-Paper integration options (e.g. Electronic Shelf Labelling)

JOB OPPORTUNITIES

- **For students:** Diploma/bachelor theses in the fields of IT, software development and marketing
- **For graduates:** Consultants, software developers, project managers and sales representatives

For further information please visit www.bison-group.com



ABOUT THE COMPANY

Deloitte is the brand under which over 200,000 professionals in independent firms throughout the world collaborate to provide a broad spectrum of services ranging from audit to tax and legal advice, consulting, and corporate finance. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality services to our clients. Combing specialized knowledge and in-depth industry expertise within multi-disciplinary teams, we deliver the insights needed to address complex business challenges. Our clients include renowned companies from around the world. 79% of the Fortune Global 500 companies are clients of Deloitte. In 2013, Deloitte grew for the fourth consecutive year and achieved a revenue of \$ 34,2 billion.

Deloitte is one of the world's leading, continuously fast growing global strategy consulting companies. In Germany Deloitte also offers a wide range of consulting services, including Technology, Human Capital, Strategy and Operations related services across all industries. The Technology practice is supporting the CIO in addressing complex business and IT challenges. The service portfolio encompasses IT Strategy, IT Architecture, IT Governance, IT Sourcing, IT Effectiveness, IT M&A, Information Management, Enterprise Applications as well as SAP-related services. Out of sixteen offices in Germany, we are working with clients from various industries in multidisciplinary national and international teams to satisfy our customer's needs. Forrester Research Inc. labeled Deloitte a leader and "the gold standard" in IT organization redesigning.

TOPICS OF INTEREST

Deloitte is leading in innovation to help companies to be successful. That requires a clear understanding of what impacts markets – and thus our customers – as well as what will impact them in the future. Seminal studies, monitoring, and trend prognoses are our tools to help our clients and solidify our position as pioneers. As a result, we continuously extend our service offering to account for trends. A good example are services like Big Data and Analytics. Here Deloitte has recently been named leader in "Analytics IT Consulting" by a top research & analyst firm.

We are seeking to interact with you as ER-CIS member institutions in order to explore the opportunities for developing efficient and innovative first class IT solutions to fulfill business strategies. We are looking forward to getting in touch with you, being your partner in providing real-life industry insights, and getting your inspiration as a dedicated scientific institution.

JOB OPPORTUNITIES

As an integral part of Deloitte's ambitious growth strategy, we are always looking for graduates, young professionals and professionals having the desire to start their career at Deloitte. We offer workshops to provide insights into what it's like to work as a consultant. We would like to welcome you as a participant in our upcoming ERCIS seminars, working with us on innovative solutions for current and upcoming issues of CIOs. Are you interested? Then follow us on Facebook, pay attention to news on the ERCIS website and visit deloitte.com/careers for open positions.

- facebook.com/deloitte.deutschland
- xing.com/companies/deloitte
- youtube.com/deloittedeutschland
- twitter.com/deloittejobsde



ABOUT THE COMPANY

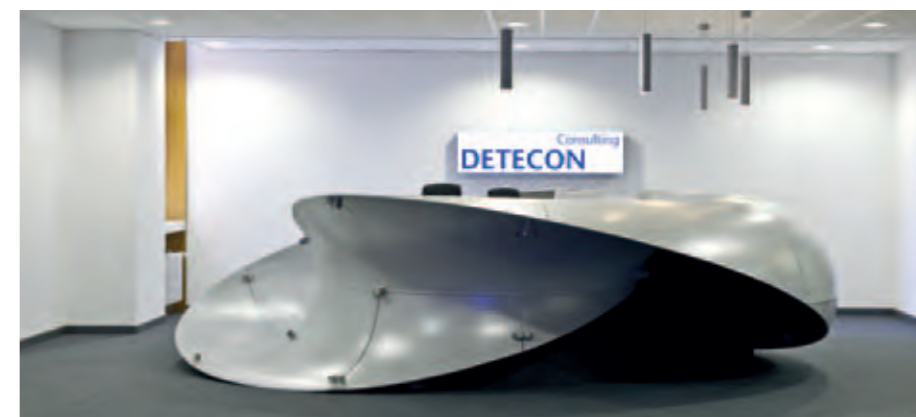
ICT Management Consulting

Detecon International is one of the world's leading management consulting companies, one which combines classic management consulting with outstanding technological expertise. This approach of thinking in terms of these two areas simultaneously will determine the future performance of every company.

Our business is consulting, our strengths are digital technologies and networks. For more than 30 years, we have been supporting companies and telecommunications providers around the globe, helping them to improve the sustainability of their competitiveness and performance capabilities along the entire value chain with the aid of innovative technologies. Moreover, we offer our clients solutions in all fields of classic corporate consulting: strategy, organization, processes, and HR management.

Experience in all Industries

We make ICT strategies work! We are determined to keep this promise to our clients, so our consultants accept an enormous range of challenges. We drive digital transformation forward. The tasks which we take on and solve for our clients are just as varied and different as the industries and the companies we work for worldwide. Our clients include companies from virtually every branch of the industrial and service sectors.



Detecon is the place

Would you like to have a part in shaping the world of tomorrow? When you work with us, you will gain exciting insights. Our trump card is the unique combination of technological expertise, business know-how, and experience in handling transformation which is an especially distinguishing feature of our consultants. They have proven this over and over in innumerable successful projects covering the whole digital world in Germany and abroad. Leading digital!

Wanted digital minds!

You are bold, creative, and cosmopolitan – these are the qualities which characterize Detecon consultants and which we want to see in you. You are enthusiastic about technologies and business and view yourself as a part of the digital future. You have made substantial progress toward your degree in economics, technology, or natural science. Ideally, you have gained experience during high-level internships in relevant areas and have shown that your horizon extends sub-



stantially farther than the next examination. We are happy to see you have spent one or more semesters abroad or have had initial experience working internationally. And if you can point to a long-term commitment to an area or a cause alongside your studies – whether social, cultural, or even athletic – that will really arouse our interest in you.

Learn more about career at Detecon and current vacancies:
<http://www.detecon.com/en/Career/Students>



COLLABORATION WITH ECWT

The European Centre for Women and Technology provides a European level meeting place for 130+ leading public-private actors, academia and NGOs collaborating for measurably and significantly increasing the number of girls and women in technology in general and ICT in specific. ECWT serves as a European single point of contact for information, collection and analysis of data, research and the development of appropriate methodological tools to attract more girls to Science, Technology, Engineering and Mathematics (STEM), for nurturing and retaining women in the knowledge economy through industry and entrepreneurial careers, for promoting the female talent to provide added value to ICT solutions, for supporting more female ICT business start-ups and consolidating the largest network for closing the Digital Gender Gap in Europe.

The ECWT strategy is implemented through National Point of Contacts established in 21 countries (2013) hosted by key national public actors (CTI, Switzerland, Swedish Agency for Economic and Regional Growth, Malta Information Technology Agency), corporate companies (SAP and SAP Research), universities (Aalto University, Finland; CISRE Formazione Avanzata / Università Ca' Foscari Venezia, Italy; KIT – Germany, NTNU, Norway, Reykjavik Technical University), SMEs (Global Contact, France, PROMIS@Service Luxembourg, Zen Digital, Belgium;), national ICT, telecom and trade associations (DI ITEK, Denmark, Intellect, UK; InfoBalt, Lithuania; PIIT, Poland) and NGOs (ATI, Spain; Bulgarian Centre for Women and Technology, Bulgaria; EWMD Portugal; Femei in Tehnologie, Romania; HEPIIS, Greece; NaTe, Hungary, VHTO, The Netherlands).

End of 2013 ECWT celebrated its 5th year in action. Having been founded just before the global financial and economic crisis, sustaining our network was indeed a challenge. 2013, has, however, resulted in a real breakthrough for ECWT: involvement in the European Parliamentary Hearing on Women in ICT and in two European level and several national pledges for the Grand Coalition for Digital Jobs:



- WePROMIS® – to support women's business start ups and SMEs in taking up cloud based interactive services, multilingual content, e-Learning, compliance tools managed by PROMIS@Service and build communities of e-Mentors (STEM scientists and corporate business leaders) and Mentees (schools, universities) managed by ECWT
- the awareness raising initiative European Digital Girls / Digital Woman Award that was handed out for the first time at ICT 2013 in Vilnius;
- a national action plan Gender Diversity in Digital Jobs presented 10 December in France;
- a similar national action plan to be launched in Greece the 4 April 2014.

In 2013 ECWT has also been approved as member of the COST genderSTE Network as well as research partner in the FP7 SiS project: SEiSMiC – Societal Engagement in Science, Mutual learning in Cities – A Mobilisation and Mutual Learning Action Plan: mainstreaming Science in Society actions in research.

We are proud to have ERCIS among our Members and believe that with the extended governance structure adopted from 2014 ECWT Alliances and ERCIS Competence Centres should be able to identify joint research priorities for working together within HORIZON2020.

Personally I am also confident that ECWT's Gender Action Plan that has resulted in an increase of female researchers at Simula Research Laboratory from 19% in 2009 to 26% end of 2012 should be of interest to ERCIS Members. I therefore look forward to closer interactivity between our networks!

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www.womenandtechnology.eu



ABOUT THE COMPANY

The PICTURE GmbH intends to promote organizations in their modernization efforts. We combine a methodical approach, technical support and considerable process expertise with a sustainable qualification approach. This integrated approach helps to achieve success in process management. The PICTURE GmbH is a spin-off of the University of Muenster, founded in 2007 by Lars Algermissen and Thorsten Falk. Thereby the PICTURE GmbH stays connected with the university and still benefits from a transfer of knowledge. The core business segment of the PICTURE GmbH is process consulting, process analysis and organisational design. The PICTURE GmbH is a consulting firm as well as a software company with consultants and developers specialised on process consulting. The company is well known for the PICTURE method and the PICTURE platform, which in combination allow describing, analyzing and optimizing business processes within organizations.

THE PICTURE METHOD – EASY. EFFECTIVE. EFFICIENT.

On the basis of 24 building blocks the Picture method provides the opportunity of process controlling by gathering and illustrating process data in a plain and transparent manner.

This method of process modelling lays the foundation for an extensive business assessment, as it offers a target-oriented and efficient way to analyze the coherencies of a company's organisational structure and business procedures.



The following illustration furnishes a brief overview about the Picture method:

Self-Explanatory

Simplified process modelling due to easy-to-use an intuitive components.

Standardized Process Description

Increased comparability and analyzability due to a formal and contentual standardization of the description level.

Instruction and Integration of Employees

Due to its simplicity it enables employees to adopt this model quickly and fosters staff acceptance.

Flexibility in Process Description

The PICTURE method can be personalized according to the individual requirements of organizations.

Efficient Process Modelling and Activity Analysis

The 24 building blocks enable to filter essential information for further analysis.

THE PICTURE PLATFORM

The Picture method is embedded in the web-based Picture platform. This platform serves to support process management within organizations as well as inter-site projects. The PICTURE platform is tailored to the special needs of organizations and aims to provide a vivid, precise and gen-

erally intelligible methodology to illustrate these needs through customized processes.

Visit our website www.picture-gmbh.de

JOB OPPORTUNITIES

Job Opportunities at the PICTURE GmbH:

- (Junior) Sales Consultant (f / m)
- (Junior) Consultant
- (Senior) Consultant
- Software Developer
- Student Assistant (f / m)

TOPICS OF INTEREST

- Process management and optimization
- Quality Management and Risk Management
- Organizational review
- Knowledge Management
- Task and Product Review
- Software implementation
- Process Benchmarking
- Change Management
- Process-oriented Budgeted Consolidation
- Implementation of Document Management Systems
- Reorganisation Studies
- Interface Analyses,
- Implementation of Software

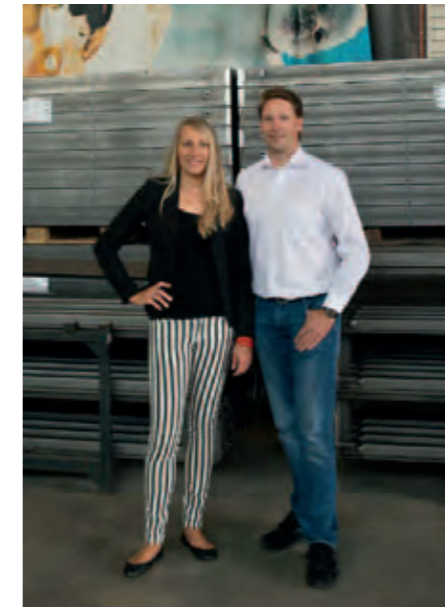


ABOUT THE COMPANY

Firma Räckers is a medium-sized family company based in Germany, in the heart of the Münsterland region. The company's structures and processes are transparent and are aligned with modern requirements to businesses. The product portfolio is composed of standardized modules, as well as system solutions and special custom-made solutions. Customer satisfaction is the major goal of Firma Räckers and it is achieved by providing competent consultation, individual solutions and tailor-made systems.

The Räckers team consist of competent specialists and experts. Since the company's foundation, its personnel grew from 1 to approximately 200 employees. Structured distribution of areas of responsibility and close cooperation with renowned companies on national and international levels ensure the best outcomes.

Since the inception of Firma Räckers, its product range has been constantly extended. The company started with adhering rubber profiles in 1981. Now the service portfolio spans from raw materials processing to fully assembled end-products. In particular, Firma Räckers offers its customers CNC aluminium processing, CNC sheet metal processing, coating with chemical pre-treatment, assembly works, as well as industrial bonding and foam-moulding technologies. For many years Firma Räckers employs Just in Sequence production, which increases responsiveness of the whole team.



Our company is particularly interested in implementation of theoretical “university knowledge” in practice. We are very delighted by the project seminar done by the BSc students from the University of Münster who helped us to prepare for quality management certification. The students analysed the current situation and proposed various possible solutions, which can be soon put into practice. E.g. in the future we plan to simplify the Just in Sequence field in order to further increase the responsiveness.

Please visit our website for further information: www.raeckers.de

FIGURES – DATA – FACTS

- 2 Executive directors
- 1 Authorised officer
- approx. 200 Employees
- approx. EUR 24 million 2012 Turnover
- 100 000 m² Plant area
- 20 000 m² Production area



20 YEARS OF CONSULTING AND SYSTEM INTEGRATION FOR DATA WAREHOUSE, BUSINESS INTELLIGENCE, BIG DATA, CORPORATE PERFORMANCE MANAGEMENT AND ANALYTICAL CUSTOMER RELATIONSHIP MANAGEMENT



ABOUT THE COMPANY

saracus is one of the leading independent consulting companies for data warehouse, business intelligence, corporate performance management and customer relationship management in Germany, Austria and Switzerland, with more than 50 data warehouse consultants. Over the last 20 years, saracus has amassed a wealth of experience in the areas of data warehouse and business intelligence in over 250 projects. Our impressive customer list and customer testimonials are the best proof of how successful projects result in satisfied customers.

saracus competence and portfolio of services

It is the stated vision of saracus to increase the analytical competence of companies and non-profit organizations in order to specifically strengthen the competitive position of these customers. The instruments for reaching this goal are pithily summarized with the terms data warehouse (DWH), business intelligence (BI), big data, corporate performance management (CPM) and analytical customer relationship management (aCRM). The services provided by saracus cover all aspects of these topics.

DWtec® und DWinsurance

Data warehouse projects are very complex regarding to requirements of skills, processes, technology and general conditions within the client's corporation. Accordingly the process model has to accommodate this complexity. DWtec® is the process model of saracus for data warehousing projects; it is based on long term experiences

and gets updated permanently. Since 2012 DWtec® has been extended by comprehensive sectoral data models – first of all, for the sector insurance: DWinsurance. Further data models (e.g. for retail, telecommunication, manufacturing) will follow.

DWH academy

The DWH academy allows saracus to make its practically orientated expertise available to customers in numerous seminars on a wide range of DWH topics. These include training courses on topics such as DWH strategy, dimensional data modelling, ETL processes, corporate performance management and analytical CRM. These seminars are also offered in-house. For information on the latest offers and to subscribe to the newsletter, visit www.dwh-academy.com.

Partnerships

saracus has maintained intensive partnerships with all major software companies in the data warehouse and business intelligence sector for many years. In addition, many of the consultants who work at saracus are also certified on the products of the software partners. To ensure that these partnerships do not cause saracus to lose its neutrality, we never operate as a reseller.

Why saracus consulting?

The following factors demonstrate why saracus is the consulting and integration partner for you:

- Fully focused on DWH, BI, Big Data, CPM and CRM for 20 years
- In-depth experience with important technologies
- A combination of business and IT know-how
- A large number of trained and experienced consultants for on-time completion of major projects
- Full service – from analysis and concept development to system integration and operation
- A procedural methodology specific to DWH
- Total commitment to the success of the project

JOB OPPORTUNITIES

- For students: Diploma/Bachelor theses, internships
- For graduates: (Junior) Consultants

Please visit our website for further information: www.saracus.com



ABOUT THE COMPANY

The management consultancy zeb is founded in Münster by university professors Prof. Dr. Bernd Rolfes and Prof. Dr. Dres. h. c. Henner Schierenbeck. Their goal: to respond to the growing need for consulting services in banking. In doing so, they are equally committed to both excellent conceptual design and supporting practical implementation – and they quickly evolved zeb into a reputable management consultancy for the financial services sector. Now, zeb is one of the leading management consultancies specializing in the financial services sector with over 950 employees, 18 offices in 13 European countries, an annual turnover of EUR 169 million and an average growth rate of approx. 20 percent. Zeb supports credit institutions, banks and IT service providers as well as insurance companies and financial sales organizations. Our clients include large, regional and private banks, savings banks, Landesbanken, institutions of the Co-operative Financial Services Network as well as specialized commercial banks.

People at zeb have know-how, know-when, knowwhere and know-why. Years of experience and profound industry knowledge create a highly specialized working environment and a team of experts that not only benefits our clients, but also every new colleague. A strong employee retention that lies notably above the average and a large number of specialists and employees with a doctorate degree who work at zeb are furthermore proof that we are happy to share our success with our employees. Our expertise covers all areas from strategy and



sales to organization, corporate management, human capital and IT. While always keeping the current situation in view, we develop visions and innovative strategies, make them calculable and take care of the implementation.

TOPICS OF INTEREST

As the partner for change, we aim at improving our clients' performance and competitiveness through providing competent advice. The heterogeneous nature of the financial services sector requires tailored consultancy solutions. To meet these requirements, we focus on holistic customer support through individual market managers combined with the know-how provided by five services:

- Strategy & Business
- Restructuring, Merger & Operating
- Finance & Risk
- Information Technology
- Human Capital & Change

Thus, our clients can tap the in-depth sector expertise of our employees in addition to our strategic know-how and practical implementation experience. Moreover, our organization made up of subject matter experts and client relationship managers guarantees integral support for our clients through personal contact and consulting partners.

zeb disposes of the necessary tools and equipment to analyze and assess the upcoming challenges and to implement projects in a calculable manner. We not only strive for exact solutions, but also for sustainable, measurable and long-lasting success. We are convinced that outstanding industry knowledge is essential to elaborate tailored solutions and concepts. As the largest European management consulting company specialized in financial services, we attach high importance to an implementation process that is sustained by strategic-intellectual expertise and excellent techniques.

JOB OPPORTUNITIES

- IT Consultant
- IT Manager Riskmanagement
- Senior Consultant IT Strategy and Transformation
- SAP Consultant

Additional career opportunities are posted at <https://recruiting.zeb.de/>



CHRIST

Jeweler and watch maker since 1863.

The Christ jewelry stores lead the market in Germany in the mid to upper price range of the jewelry and watches segment.



HILTI CORPORATION

Hilti provides leading-edge technology to the global construction industry. Hilti products, systems and services offer the construction professional innovative solutions with outstanding added value. The headquarters of the Hilti Group are in Schaan in the Principality of Liechtenstein. Some 21000 employees, in more than 120 countries around the world, enthuse their customers and build a better future. The corporate culture is founded on integrity, courage, teamwork and commitment.

Hilti excels through outstanding innovation, top quality, direct customer relations and effective marketing. Two-thirds of the employees work directly for the customer in sales organizations and in engineering, which means a total of more than 200,000 customer contacts every day. Hilti has its own production plants as well as research and development centers in Europe, Asia and Latin America.

Founded in 1941, the worldwide Hilti Group evolved from a small family company. Since 2000, the Martin Hilti Family Trust holds all shares and, since January 2008, all participation certificates of Hilti Corporation. This safeguards the further development of the company founder Martin Hilti's life's work in the long term.



IQ-OPTIMIZE

IQ-optimize Software AG is an innovative Software-Technology supplier with over 60 motivated employees, IQ-optimized develops, implements, and supervises software solutions for Business Process Management (BPM) and Workflow-Automation. Those solutions embrace all administrative and commercial domains of a company.

The core competence of IQ-optimize is the development and maintenance of web-based Workflow-Solutions and the integration of Software-Applications (EAI) for the improvement of business processes.



OWNCLOUD

OwnCloud gives users universal access to their files through a web interface or WebDAV. It also provides a platform to easily view & sync contacts, calendars and bookmarks across all devices and enables basic editing right on the web. Installation has minimal server requirements, doesn't need special permissions and is quick. ownCloud is extendable via a simple but powerful API for applications and plugins.

The company makes it possible for developers to work full time on ownCloud, organizing ownCloud events, marketing ownCloud to a wider audience and supporting companies, governments and schools in their ownCloud deployments.

The business model of ownCloud Inc. is very similar to other successful Open Source companies, offering services and support around ownCloud for the enterprise. The company is dedicated to working entirely in the open, accelerating development in the areas of its customers' needs while enabling a completely open development process where everybody can contribute.

www.owncloud.org



SAP

As market leader in enterprise application software, SAP (NYSE: SAP) helps companies of all sizes and industries run better. From back office to boardroom, warehouse to storefront, desktop to mobile device – SAP empowers people and organizations to work together more efficiently and use business insight more effectively to stay ahead of the competition.

SAP applications and services enable more than 251000 customers to operate profitably, adapt continuously, and grow sustainably.

For more information, visit www.sap.com.

OUTLOOK FOR 2015

JANUARY 2015

- European Privacy Day, January 29, 2015, Vaduz, www.uni.li/iwi

FEBRUARY 2015

- Student Consortium at Wirtschaftsinformatik Conference 2015, Osnabrück, www.wiz2015.de
- PhD-Skiseminar – February 09–14, Flumserberg, www.uni.li/iwi
- BPM Winter School 2015, February 22–27, Vaduz, www.bpm-education.org

MARCH 2015

- Student Consortium at WI 2015, March 4–6, Osnabrück, Germany, organised by the University of Liechtenstein, www.wiz2015.de
- Kilpisjärvi Information Systems Seminar (KISS), March 23–27, Kilpisjärvi, Finland.
- 34th International Conference on Organizational Science Development, March 25–27, Portorož, Slovenia, <http://fov.uni-mb.si/conference>

APRIL 2015

- Study Trip to our ERCIS-Partner, Vienna, www.uni.li/iwi

MAY 2015

- 10th International Conference on Design Science Research in Information Systems and Technology (DESRIST), May 21–22, Dublin, Ireland, <http://desrist2015.computing.dcu.ie>
- The Centre for Emergency Management (CIEM) at University of Agder will host the 12th International Conference on Information Systems for Crisis Response and Management (ISCRAM 2015) on May 24–27 2015 in Kristiansand, Norway. Conference URL: <http://iscram2015.uia.no/>
- 23rd European Conference on Information Systems (ECIS 2015), May 26–29, Münster, www.ecis2015.eu

JUNE 2015

- DRUID 2015, Rome, June 15–16, <http://www.druid.dk>
- 28th Bled eConference #Wellbeing, June 7–10, Bled, Slovenia, <http://BledConference.org>

AUGUST 2015

- ERCIS Annual Workshop, August 24–26, Miñho, Portugal

SEPTEMBER 2015

- 8th SIGSAND/PLAIS EuroSymposium on Systems Analysis and Design, September 25, Gdansk – Sopot, <http://eurosymposium.eu>

OCTOBER 2015

- 18th International multiconference Education in Information Society, October 2015, Ljubljana, Slovenia, <http://vivid.fov.uni-mb.si/>

DECEMBER 2015

- International Conference on Information Systems (ICIS 2015), December 13–16, Ft. Worth, TX, USA

ERCIS TEAM

> ERCIS Team www.ercis.org



For everything that concerns the ERCIS network, simply send an email to team@ercis.org. You will for sure get an answer from one of our team members.

The ERCIS team consists of Dr. Armin Stein, who is the managing director of the ERCIS network, as well as Dr. Katrin Bergener and Dr. Sara Hofmann, who works part-time for the network during her Ph.D. studies. In addition to answering emails, the team helps in organizing events, maintaining the website, organising the network communications and supporting project applications.

If you are interested in the network, get in touch with them!

THE IS RESEARCH NETWORK



IMPRINT

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