

Preface

We warmly welcome you to the proceedings of the 16th IEEE Conference on Business Informatics (CBI 2014). The CBI series (www.cbi-series.org) started in 1998 as a workshop on Dependable and Real-Time E-Commerce Systems (DARE) and then continued as a Workshop on Advanced Issues of EC-ommerce and Web-based Information Systems (WECWI) that in 2003 evolved into a conference named IEEE Conference on e-Commerce and Enterprise Computing (CEC). In 2013, the CEC, in its turn, enlarged its scope and became the IEEE Conference on Business Informatics (CBI). Today, the CBI conference brings together different research domains related to Business Informatics and offers a venue to researchers and practitioners in this field to stimulate discussions, synergy and integration of their respective research results and activities.

Business Informatics is a scientific discipline targeting information processes and related phenomena in their socio-economical business context, including companies, organisations, administrations and society in general. Business Informatics is a fertile ground for research with the potential for immense and tangible impact. As a field of study, it endeavours to take a systematic and analytic approach in aligning core concepts from management science, organisational science, economics information science, and informatics into an integrated engineering science.

The field of Business Informatics involves a broad spectrum of more specific research domains that focus on important aspect of informatics in the context of organizations, ecosystems and society at large. These domains include:

Business Model Innovation, Business Process Engineering, Empowering & Enabling Technologies, Enterprise Architecture, Enterprise Engineering, Enterprise Modelling, Enterprise & Business Transformation, Method Engineering, Service Innovation & Engineering, Social & Frontier Technologies, Business Data Engineering and Analytics, Model-driven Engineering, Industrial Services and Decision Support Systems.

The CBI conferences use a format that enables in depth discussions amongst researchers in their respective domains during the conference. In addition, the best contributions and fruitful discussions among the different domains are channelled towards a book series dedicated to Advances in Business Informatics.

This year, CBI is organized from July 14-17 in Geneva, Switzerland, and continues the already well established CBI tradition. The conference received 102 submissions, 28 of which have been selected for the main conference and 9 recommended to the collocated workshops. Each submission was reviewed by three Program Committee members and received a recommendation from the corresponding Domain Coordinator. This two level review process allowed us to select the most relevant and highest quality papers and to offer the audience an exciting program including 11 technical sessions.

In addition to the paper presentations, the program of CBI 2014 features seven keynote presentations. We would like to thank Ron Tolido for his industrial keynote on The Black Swans Of Digital Transformation. We are also grateful to the presenters of the domain-specific keynotes: Jean Bezivin for the presentation on “Towards Cross-Disciplinary Practices: Software Modeling for Enterprise, Business and other Domain Engineering Fields”, Ralf Gitzel for the presentation on “Industrial Service as a Research Discipline”, Chris Stary for the presentation on “S-BPM (Subject-oriented Business Process Management) Revisited”, Henk Sol for the presentation on “Enhancing Issues that Matter: Providing COLLAGEN for Ennovations”, K.-J. Lin for his presentation on “Informatics Driven Business: Exploring New Frontiers Created by IT” and Jolita Ralyté for her presentation on “Fundamentals and Challenges of Situational Method Engineering”. One of the aims of the CBI series is to bring the different domains within the Business Informatics scope together. This year, four CBI domain coordinators took the lead in providing an integrated perspective across domains. We would therefore also like to thank Stephan Aier, Antonia Albani, Eng Chew, Henderik A. Proper, Jorge Sanz, José Tribolet and Robert Winter for their (joint) domain keynote on “Engineering for Value Co-Creation: A Research Roadmap”.

For the first time, with the support of CUSO, CBI 2014 hosts a Summer School on Business Informatics, which aims at providing doctoral students with lectures broadening the horizon towards selected domains identified as cornerstone of the IEEE Conference on Business Informatics. The programme of this school features lectures by prominent professors: Antonia Albani (HSG,

Switzerland), Eric Dubois (CRP Henri Tudor, Luxembourg), Ulrich Frank (University of Duisburg-Essen, Germany), Jan Mendling (Vienna University of Economics and Business, Austria) and Alain Wegmann (EPFL, Switzerland). We would like to thank Birgit Hofreiter, Stéphane Marchand-Maillet and Jacques Savoy for their successful efforts on enriching CBI with a summer school.

The program of CBI is further complemented by six co-located workshops all of them aiming to attract participants from both industry and academia. The 8th TEE Workshop: Transformation & Engineering of Enterprises promotes the use of methods and techniques from business process management, business engineering, organizational change management, enterprise architecture, enterprise modelling, and information systems engineering, and offers a forum to present related industrial practices. The workshop on Lowering Adoption Barriers to Enterprise Modeling (LABEM) aims to raise the awareness on human dimensions immanent to enterprise modelling, and to underline the need for their better support by modelling technologies. The workshop on Cross-organizational and Cross-company BPM (XOC-BPM) claims that coordinating stakeholders belonging to different organizations needs corresponding methods and tools. Therefore, the workshop explores multiple approaches allowing to improve participation, collaboration and social interaction for managing cross-organizational and cross-company business processes. The workshop on Capability-oriented Business Informatics (CoBI) investigates the use of the notion of capability in the context of business-IT alignment, and in particular, in enterprise modelling and architectures as a foundation for sustainable Information System planning and management in the presence of varying social and business contexts. The Workshop on Web 3.0 and Smart Commerce (W3SC) is about business transformation according to Web 3.0 and its definitions, about new types of services and innovative business models stemming from the high impact of Web 3.0 and Smart Commerce as the next step in globalization. Finally, the Workshop on Enterprise Engineering Theories and Methods (WEETM) seeks to develop a foundation of sound theories over which methodologies can be built and used to effectively engineer and manage enterprises.

We thank Sybren de Kinderen for taking care of the workshops at CBI 2014 and we appreciate all the efforts of the workshop chairs: Wolfgang Molnar and Henderik A. Proper for TEE, Jean-Sébastien Sottet and Marija Bjeković for LABEM, Albert Fleischmann, Lutz Heuser, Andreas Oberweis, Werner Schmidt, Frank Schönthaler, Christian Stary, and Gottfried Vossen for XOC-BPM, Pericles Loucopoulos, Oscar Pastor and Jelena Zdravkovic for CoBI, Svetlana V. Maltseva and Mikhail M. Komarov for W3SC, and Artur Caetano and David Aveiro for WEETM.

The organization and successful running of CBI 2014 would not be possible without the valuable help and energy of a large number of highly motivated people. We would like to express our gratitude to the Program Committee members, the Domain Coordinators and additional reviewers for their valuable work in selecting the papers for the scientific program of the conference; to the authors of the papers for submitting their work to CBI 2014; and to the Session Chairs for making this conference going smoothly. For the proceedings, we are grateful to our Publication Chair Birgit Hofreiter and the production manager Lisa O’Conner from IEEE. Our special thanks goes to all members of the local Organizing Committee at the University of Geneva for their hospitality and the organization of scientific and social events.

Finally, we thank all participants both from academia and industry and we hope that you enjoy IEEE CBI 2014 in Geneva and that you find these proceedings a valuable source of information on business informatics.

Henderik A. Proper, *CRP Henri Tudor, Luxembourg*
Jolita Ralyté, *University of Geneva, Switzerland*
Program Co-Chairs

Stéphane Marchand-Maillet, *University of Geneva, Switzerland*,
K.-J. Lin, *University of California, Irvine, USA*
General Co-Chairs