Editorial

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Biographical notes: Gilbert Babin received his BSc and MSc from Université de Montréal (Canada) in 1986 and 1989, respectively. He completed his doctoral studies in 1993 at Rensselaer Polytechnic Institute (USA), where he studied integration approaches for heterogeneous, distributed systems. He worked at the Computer Science Department at Université Laval from 1993 to 2000. Since then, he then joined the Information Technologies Department at HEC Montréal (Canada) as Associate Professor. He has more than 50 papers published in refereed journals and conferences. He is one of the co-inventors of ERPsim, a simulation environment to teach ERP concepts.

Peter Kropf has received his MSc (Mathematics) and his PhD Degrees (Computer Science) from the University of Bern, Switzerland. From 1994 to 1999, he has been an Assistant and Associate Professor at Laval University, Quebec, Canada. From 2000 to 2003, he was appointed as an Associate Professor at the Department of Computer Science (DIRO) at the University of Montreal, Canada. Since 2003, he is a Professor of Computer Science at the University of Neuchâtel, Switzerland. He is currently Dean of the Faculty of Science. He has published over 90 research papers in the fields of parallel and distributed systems, e-commerce, simulation and optimisation.

With the rapid growth of the Internet and of open source technologies, innovation in an open world is today's reality. Innovation is what keeps businesses profitable and at the leading edge. Businesses have to find novel ways to integrate proprietary ideas with open source ideas and make it all work together. Furthermore, these innovations must be

properly integrated and implemented to reap their full potential. These innovations concern solutions in e-business, e-education or e-government; their implementation is a multi-faceted problem, involving technological, managerial, economic, and legal issues. In May 2009, researchers met in Ottawa at the Fourth MCETECH Conference on e-Technologies to discuss about innovation in an open world. In particular, they addressed in the scientific program such topics as inter-organisational processes, service-oriented architectures, security and trust, middleware infrastructures, open source and open environments and applications including e-government, e-education, and e-health. As in previous years, the main conference program of MCETECH 2009 was accompanied by a rich tutorial program and one workshop on system interoperability in healthcare systems (E-health: towards system interoperability through process integration and performance management).

This special issue of the *International Journal of Electronic Business* gathers the best papers selected from the 36 research papers presented at MCETECH 2009. Of these, 13 papers were considered for publication in this special issue, and three were finally selected after a double blind review process.

In 'Federated identity management to link and protect healthcare data', Liam Peyton and Jun Hu discuss the opportunity provided by the Internet to support the integration of multiple healthcare data sources. They identify three major challenges that must be addressed to enable such integration: the availability of a common view, the availability of reasonable identity matching mechanisms, and the availability of identity protection mechanisms that ensure compliance with the laws. In this interesting study, they first construct a list of requirements, and then provide a thorough analysis of three approaches currently available and show how each of these approaches, individually, fail to fulfil these requirements. Finally, they show how the three approaches could be combined to remove the shortcomings identified.

Alireza Pourshahid, Gunter Mussbacher, Daniel Amyot and Michael Weiss also use healthcare information systems as their proving grounds in 'Toward an aspect-oriented framework for business process improvement'. This paper extends the expressiveness of the User Requirements Notation (URN), a standardised notation to represent processes and user requirements, to support aspect-oriented requirements. The authors show how the use of aspect-orientation can improve requirements development and hence produce better requirements. By developing this extension of URN, it is now possible to apply design patterns to process models that are kept in sync with their goal, performance, and validation models.

The last paper of this special issue is also related to healthcare systems, but focuses on IS compliance with the Health Insurance Portability and Accountability Act (HIPAA). In 'Integrating business strategies with requirement models of legal compliance', Sepideh Ghanavati, Daniel Amyot, Liam Peyton, Alberto Siena, Anna Perini and Angelo Susi demonstrate how the Goal-Oriented Requirement Language (GRL), a subset of the URN, can be used to assess the compliance of a healthcare system to HIPAA. As a consequence of the use of GRL, the compliance validation model is constructed in parallel to the construction of the system requirements.

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