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## 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 then completed his Doctoral studies in 1993 at Rensselaer Polytechnic Institute (Troy, New York, USA), where he studied integration approaches for heterogeneous, distributed systems. His Doctoral thesis earned him the Del and Ruth Karger Dissertation Award in 1995. He worked at the Computer Science Department at Université Laval from 1993 to 2000. Since then, he joined the Information Technologies Department at HEC Montréal (Canada). He is a member of ACM and the Computer Society of the IEEE. He has more than 70 papers published in refereed journals and conferences. His research interests revolve around distributed systems and approaches to integrate them. He is also one of the co-inventors of ERPSim, a simulation environment to teach ERP concepts.

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The internet now pervades our everyday lives. We also see an increase in the use of social network software, such as Facebook, Twitter, and the like. Yet, enterprises are still struggling to integrate these new technologies into their ways of doing business. In 2011, we invited researchers from disciplines interested by the use of Web technologies in a business context to present their findings at the Fifth MCETECH Conference on e-Technologies in Les Diablerets (Switzerland). The conference focussed on the impact of mobile Internet and its applications, on methods that must be developed in order for enterprises to reap the benefits of the Internet, on novel services made available to enterprises through the cloud, and on issues pertaining to trust. A total of 18 papers, co-authored by 51 researchers from around the world presented the results of their research.

This special issue of the *International Journal of Electronic Business* features four research papers. Of these, three were originally presented during the Fifth MCETECH conference. Interested authors from the conference were asked to submit a revised and extended version of the paper they presented. At the same time, we opened this call for paper to other authors who were also interested by the topics of the conference. We retained one such paper in this special issue. In total, we received 11 submissions, five of which were selected after a double blind review process. Of these five papers, four are included in this special issue; the last one will be published in a regular edition of the journal.

In 'Improving human-agent communication using linguistic and ontological cues', Jean-Paul A. Barthès addresses the problem of users interacting with complex application, as made available by the Internet. In the specific context of agent-based

applications, he develops a personal assistant agent that can facilitate the interaction of the user with the system, moving from simple point-and-click interaction to natural language interaction. He shows how ontologies and a knowledge base can be used in conjunction to yield such an assistant. He then assesses the appropriateness and validity of the approach using a real-life system.

Abel Tegegne and Liam Peyton address the problem of developing managed process applications in their paper entitled 'Application framework support for process-oriented software development.' Managed process applications allow the continuous monitoring and improvement of process performance. They develop a framework that supports the development of such applications. The use of the framework is illustrated using an information system supporting the processes of a palliative care unit. The benefits of the framework are analysed in light of this case study.

The next paper, 'Evolution mechanisms for goal-driven pattern families used in business process modelling' by Saeed Ahmadi Behnam and Daniel Amyot also uses an example related to healthcare systems which focuses on patient safety. This paper is more theoretical; it explores the use of design patterns and how these design patterns can be adapted, transformed or combined to fit a specific context.

The last paper of this special issue, 'An empirical model of sustainable manufacturing supply chains for enabling a low-carbon economy' authored by Stuart So, presents a sustainable supply chain management model enabled by Internet technologies. The design of the model aims at minimising the carbon signature of the process, taking advantage of available technologies to dematerialise activities and considering green logistics distribution in order to reduce the overall environmental impact of the process. The relevance of the model was tested with a survey of manufacturing companies.

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