

Special Issue: Business Intelligence for Emerging e-Business Applications

Guest Editorial

Business Intelligence (BI) is a concept of applying a set of technologies to convert data into meaningful information. Traditionally, BI is implemented as standalone decision-support systems that provide vital information probably in some form of reports, for enabling business analysts or managers to formulate business strategies.

In recent years, BI and e-Business Applications have been developed as independent research fields which has received considerable amount of attention. The main challenges now are how BI can be fused into an e-Business application as a part of the business processes. Some advantages of integrating BI into e-Business applications include facilitating automation and decision making capabilities with real-time knowledge by software agents.

When the two trends couple, new emerging models of e-Business applications become possible; Examples are creating new kinds of e-Business services such as agent-mediated B2B e-Commerce, intelligent B2C recommender, smart online service, and knowledge-driven customer relationship management.

This special issue of JETWI consists of six papers that represent the latest research on the leading edge BI technology in different application scenarios. These papers are invited for extended versions, solicited from selected papers that have been presented at the International Workshop on Business Intelligence for Emerging e-Business Applications (BieeBa 2009), now its sequel called International Conference of Data Mining and Intelligent Information Technology Applications (ICMIA 2010 and 2011) being sponsored by IEEE Korea Council, IEEE Seoul Section, University of Macau, and AICIT.

The first paper introduces six technical gaps for consideration in designing intelligent applications powered by data-mining. It is an insightful guide full of tips and pitfalls for software developers who are keen on designing a real-time based intelligent application. This design guide is accompanied by another technical paper that carries in-depth details on integrating Data Mining into OLAP technology from Auckland University of Technology, New Zealand. Followed by other interesting papers in this special issue, from the University of Macau, such as applying Sematic Web Services on telecommunication industry, data mining in GSM mobile network, and even an intelligent algorithm that can predict trends in stock market with positive results!

We hope that via this special issue not only readers will be enlightened about what data mining and intelligent applications can do, but research endeavor from a wider community would be enticed; and together we continue to make an impact to benefiting mankind by our research efforts.

Guest Editors

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Simon Fong graduated from La Trobe University, Australia, with a 1st Class Honours BEng. Computer Systems degree and a PhD. Computer Science degree in 1993 and 1998 respectively. Simon is now working as an Assistant Professor at the Computer and Information Science Department of the University of Macau. He is also one of the founding members of the Data Analytics and Collaborative Computing Research Group in the Faculty of Science and Technology. Prior to joining the University of Macau, he worked as an Assistant Professor in the School of Computer Engineering, Nanyang Technological University, Singapore. Prior to his academic career, Simon took up various managerial and technical posts, such as systems engineer, IT consultant and e-commerce director in Melbourne, Hong Kong and Singapore. Some companies that he worked before include Hong Kong Telecom, Singapore Network Services, AES

Pro-Data and United Oversea Bank, Singapore. Dr. Fong has published over 120 international conference and journal papers, mostly in the area of E-Commerce technology, Business Intelligence and Data-mining.



Sabah Mohammed graduated in 1977 with BSc in Mathematics and joined Sony as a maintenance Engineer. In 1979 he joined Glasgow University for his graduate studies where he obtained his Post-Graduate Diploma and Masters in Computing Science. After that he continued his PhD graduate studies in Computer Science at Brunel University, London, UK where his PhD thesis was about developing an intelligent system for designing adaptive computer architectures. After his PhD graduation, Dr. Mohammed joined several academic institutions as Assistant/Associate Professor of Computer Science including (BU, Amman University, Philadelphia University, Applied Science University and HCT). During this period (1986-2001), Dr. Mohammed chaired several Computer Science and Information Systems departments including (Philadelphia University, Applied Science University, HCT). Since late 2001, Dr. Mohammed is full Professor

of Computer Science with tenure at Lakehead University, Ontario, Canada. Dr. Mohammed also served as a Visiting Professor at the Laurentian University, Department of Math and Computer Science during winter 2007. Currently Dr. Mohammed is serving also as an Adjunct Research Professor at the University of Western Ontario (2009-2012). Dr. Mohammed has co-authored four text books in Compilers, Artificial Intelligence, Java Programming and Applied Image Processing. Dr. published over 90 refereed publications and was the MSc advisor for 20 students and 1 PhD student. Dr. Mohammed has received research support from a variety of governmental and industrial organizations including NSERC and CFI. Dr. Mohammed is the coordinator of Northern Ontario Web Intelligence research group that was established during 2003. Dr. Mohammed's research interests include Web Intelligence, Ubiquitous Computing, Web-Oriented Architectures, Ambient and Mobile Computing, Image Processing for Ubiquitous Images and Medical Informatics. Dr. Mohammed is the Editor-in-Chief of the Journal of Emerging Technologies in Web Intelligence-Academy Publisher-Finland. Dr. Mohammed is also on the editorial boards of several other journals (e.g. Computer Aided Engineering and Technology- Inderscience, Journal of Universal Computing-Springer, International Journal of Computing and Information Sciences-IJCIS Publishers, International Journal of Network Security- IJNS Publisher, International Journal of Pattern Recognition and Machine Intelligence- International Scientific Publishers and Journal of Computer Science-Academy Publisher). Dr. Mohammed is a member of the British Computer Society, Professional Software Engineer of Ontario (PEng), Professional member of the ACM, CIPS and IEEE.