

Special Issue on Selected Best Papers of the International Conference on Information and
Communication Systems (ICICS 09)

Guest Editorial

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There is too much content on the Internet, so people who consult it can lose sight of their own objective without strong intention. A similar thing can also occur on a Web site. To solve this issue, some Web sites have employed recommender systems such as collaborative filtering to help a user browsing the Web site.

Thus, using a recommender system for computer-based content selection and presentation is a way to strike a balance between content generated by other people and a user. Usually, the target of a recommender system is a single Web site.

The International Conference on Information and Communications Systems (ICICS2009) is a forum for Industry Professionals and Academics from Companies, Governmental Agencies, and Universities around the world to present their latest research results, ideas, developments and applications in all areas of Computer and Information Sciences. The topics that have been covered in the ICICS2009 include, but are not limited to: Artificial Intelligence, Mobile Computing, Networking, Information Security and Cryptography, Intrusion Detection and Computer Forensics, Web Content Mining, Bioinformatics and IT Applications, Database Technology, Systems Integration, Information Systems Analysis and Specification, Telecommunications, and Human-computer Interaction. We selected 12 high quality papers (out of 62 papers, which were presented at the ICICS2009) and invited the authors of the selected papers to extend them and submit them for a complete new peer-review for consideration in this Special Issue (SI). The final decision for the inclusion in the SI has been strictly based on the outcome of the review process. The main objective of the SI is to make available the latest results in the field to the research community and report state-of-the-art and in-progress research on all aspects of information and communication systems. The selected papers span a broad range on the information retrieval, E-business and Internet. The contributions of these papers are outlined below.

Muath Alzghool and Diana Inkpen have studied the data fusion method that should be able to combine the results that have high retrieval effectiveness with the results that have low retrieval effectiveness. They have conducted a number of experiments. Their results show that the new proposed technique is significantly better than CombSUM or WCombSUM in combining results with high quality variation. On the other hand, Nadia Bouassida and Hanène Ben-Abdallah have focused on the Pattern and spoiled pattern detection. They have presented a method that identifies design patterns and spoiled patterns through an XML document retrieval approach. This latter provides for the possibility of tolerating structural variations between the design and the searched pattern. Further, their proposed pattern identification method can be parameterized in order to delimit the degree of acceptable variations. Moreover, Adnan A. Tala'a aims at combining the power of wireless communications with the strength of database information keeping through Internet as a media to make it possible to implement an automated record keeping system. The proposed system is based on wireless communications for schools.

Most previous works were focused on looking at mobile phone as terminal device. However, Meisam Hejazinia and Mohammadreza Razzazi have a different view. They look at mobile phone as server; they defined the concept of society network, which could be leveraged to enhance mobile phone mobile agent capability. Their contribution was redefining mechanisms of mobile agents for specific characteristics of mobile phone. Reusing and remixing contents are keys to expressing activities. Within this context, Kosuke Numa, Katsuaki Tanaka, Mina Akaishi and Koichi Hori present a new framework for content circulation. The author concluded that the framework could help content recomposition and this framework is applicable to various manners of expressions like Web content creation. On the other hand, Katsuaki Tanaka, Koichi Hori and Masato Yamamoto address another important issue. They propose new recommender system based on extending contexts of content and personal history. This systems captures personal context from a history of personal online and offline activities, treats information on Web sites as a large set of context, and discovers and extends the overlaps of personal activities and Web sites, then recommends information located in the Web sites.

E-buisnees has been a major avenue for many researchers in IT. With the global emergence of e-government and its potential benefits to citizens, there has been a growing need adopting the e-government services. Rand A. Obeidat and Emad A. Abu-Shanab address this issue with a particular attention paid to the Jordanian experience in e-business.

As for the software and requirements engineering, Andrea De Lucia and Abdallah Qusef address discusses problems concerned with the conduction of requirements engineering activities in agile software development processes and suggests some improvements to solve some challenges caused by agile requirements engineering practices in large projects. William J. Tastle, Amjad Abdullat and Mark J. Wierman introduce a new approach in requirements elicitation analysis. In this study, it is commonly acknowledged that difficulties in understanding challenging and complex problems, sometimes even perceived as being rather intractable, usually presage the more interesting efforts of building information systems in organizations.

Home networking is a growing area of research. Most of the home networks are currently used to connect PCs for tasks such as printing and shared Internet connectivity. However, Sandeep Kumar, Saiful Islam, Archana Gupta and Himanshu Bhardwaj tend to take this field further as they have designed a new system for controlling electrical devices but the design can be extended to control mechanical devices. They have simulated the system for controlling the LEDs and this is working properly. This SI also considers the needs of different communities, including the blind people. Ameer H. Morad designs a small device, very easy to use called, GPS Talking Blind People, help blind people to navigate around camps, cities and get voice messages notifying them concerning their locations.

Finally, as guest –co-editors of this SI, we would like to express our deepest thanks to the Editor-in-Chief, Professor Sabah Mohammed for hosting this Issue in the JETWI and for his continued support and helpful guidance throughout all the stages of preparing this SI. Our sincere thanks also go to the Editorial-office staff of the journal for their excellent job during the course of preparing this special issue. We also thank the authors for their contributions, including those whose papers were not included. We thank and greatly appreciate the thoughtful work of many reviewers who provided invaluable evaluations and recommendations.



Mohammad Al-Rousan is currently an associate professor at the Department of Network Engineering and Security, Jordan University of Science and Technology (JUST). He was educated in KSA, Jordan and USA. He received his BSc in Computer Engineering from King Saud University, Saudi Arabia, in 1986. He received his M.S. in Electrical and Computer Engineering from University of Missouri-Columbia, MI, USA in 1992. In 1996 , he was awarded the PhD in Electrical and Computer Engineering from Brigham Young University, UT, USA. He was then an assistant professor at JUST, Jordan. In 2002, he joint the Computer Engineering Department at American University of Sharjah, UAE. Since 2008, he has been the Dean of College of Computer and Information Technology at JUST. He is the Director of the Artificial Inelegant and Robotics Laboratory, and a co-founder for the Nano-bio laboratory, at JUST. His search interests include wireless networking, System protocols, intelligent systems, computer applications, and Nanotechnology,

Internet computing. Dr. Al-Rousan served on organising and program committees for many prestigious international conferences. He is the recipient of several prestigious awards and recognitions. He co-chaired international conferences on Information and Communication Systems (ICICS09).



Wei Li received the Doctor of Philosophy degree from Virginia Polytechnic Institute and State University and has been working on software measurement, design, and formal method. His recent work focused on validating software metrics using open-source data and formalizing metrics.



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