

In Australia there is another drop in the number of local students choosing to enter university computing courses in 2004. If this trend continues, will Australia produce enough computing professionals for its future needs?

On February 23, 2004 the Australian Computer Society released the results of its annual Information and Communications Technology (ICT) Survey for 2003 which revealed significant improvement in unemployment levels for ICT professionals. While the overall rate of unemployment in the ICT sector remains high, unemployment in the ICT sector is falling at double the rate for the overall labour market. For the full press release, and other interesting press releases, see www.acs.org.au.

In the last issue of JRPIT I made a call for extra Associate Editors for JRPIT in certain areas, such as computer hardware. I was overwhelmed by the response and could not appoint all the suitable people who volunteered. I now welcome on board Professors Bill Appelbe, John Grundy, Zoran Salcic, and Arthur Sale and Associate Professor Colin Fidge.

However, I am still seeking a Book Review Editor. If you are interested, please contact me.

JRPIT is well on track with the planned Special Collection of papers on Requirements Engineering. The Guest Editor of this Collection is Associate Professor Didar Zowghi.

The average time between submission of a paper and its publication, if accepted, in JRPIT continues to reduce. Our goal is to have this less than one year. This will be achieved without compromising the thorough refereeing process for papers appearing in JRPIT.

Now let us peek into the contents of this issue. First, there is an article by Sheng-Uei Guan, Sin Lip Tan, and Feng Hua entitled "A modularized electronic payment system for agent-based e-commerce". Every year the importance of e-commerce is growing. The use of intelligent agents autonomously to perform tasks on behalf of the user is very attractive and promising, however a variety of key issues, such as security, need to be addressed. This article builds on previous work of the first author and others on an agent framework called SAFER (Secure Agent Fabrication Evolution and Roaming). "This paper presents an extensible SAFER-based e-payment system suited to the requirements of agent-based e-commerce." The system uses the SET (Secure Electronic Transfer) and E-Cash protocols for payment. The authors say "the prototype built illustrates a high degree of functionality".

The second paper in this issue is by Jeffrey Xu Yu, Chi-Hon Choi, Gang Gou, and Hongjun Lu called "Selecting Views with maintenance cost constraints: issues, heuristics and performance". The databases of business are "gold mines of information that could give them a critical edge by helping them to manage investment, map market development, identify new customer prospects, anticipate demands on banking services, and predict consumer preferences and habits. As a collection of decision support techniques that aim at enabling executives, managers and analysts to make better and faster decisions, data warehouse and OLAP (on-line analytical processing) have been successfully deployed..." "The amount of potential data that needs to be maintained tends to be hundreds of gigabytes or terabytes in size." "Therefore OLAP query processing time becomes critical..." "Precomputing OLAP queries – materializing views with aggregate functions – has been widely used as a common technique in data warehouses." "...the real constraint is ... the maintenance-cost incurred in maintaining the materialised views up to date in a data warehouse" "The maintenance-cost view-selection problem has been proved to be NP-hard." So algorithms which provide a near optimal solution in polynomial time are highly desirable. The authors say "Our main contribution, in this paper, is to provide users with insights on the heuristic algorithms in terms of both processing time for the algorithms to find a solution and the effectiveness of the algorithms to minimize query processing cost".

The third paper is by Øystein Sørø, Gunnar Christensen and Tom Roar Eikebrokk entitled “The impact of purposeful end-user computing activities on job performance: an empirical investigation”. “This study offers a framework for our understanding of how core activities in EUC (End-User Computing) influence job performance. The empirical test of the proposed framework provides the basis for several conclusions and recommendations for the management of EUC in organizations.” In sum, the message to managers would be that EUC is more than just straightforward utilization of computer resources by individuals. They should be aware that EUC implies activities that may increase, as well as decrease, professional job performance. In this paper the influence on job performance of a set of core activities in EUC on 328 professionals is studied.

This issue of JRPIT ends with a book review by Keyur Patel of the recent publication “E-business innovations and change management” which was edited by Mohini Singh and Dianne Waddell. The reviewer recommends this book as an important reference for postgraduate students and e-business and change management researchers and practitioners.



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