Press Release

Deans’ action plan for ICT skills shortage

There have recently been numerous articles in the press concerned with ICT (sometimes abbreviated to IT) skills shortages that focused on a variety of aspects. The Australian Council of Deans of ICT (ACDICT – the peak academic ICT body) recognises that there are many factors that contribute to the shortage of skilled ICT workers in Australia. “Improving education, and those who influence students at all levels of the education spectrum is key to dealing with the issues”, said Professor Leon Sterling, President of ACDICT.

Students interested in studying ICT (rather than just using it) are influenced by a range of people including their teachers, who may or may not be proficient with ICT, as well as careers advisors and parents who may themselves have little or no experience or knowledge of the ICT industry and the kinds of jobs and careers available. Unfortunately many negative perceptions and stereotypes persist in the public at large such as ICT is for geeks, the jobs are boring and unsuitable for females.

“The very opposite is the case” said Professor Sterling, “innovation, creativity, making new connections between technology, people and ideas is at the heart of the ICT industry which spans all kinds of jobs and is central to the functioning of most services and industries.” Perhaps because it is so pervasive, ICT has been taken for granted with little thought being given to how all the innovations around us, indeed our very lifestyle in the developed world, came about and depend on ICT.

The recent AWPA ICT workforce study examined the key issues that limit the quality and quantity of domestic ICT skills, including negative perceptions of ICT careers, poor ICT education in schools, low numbers of female and mature-aged workers in the ICT workforce, industry views that tertiary ICT graduates are not work ready, and low investment by industry in ongoing skills development.

ACDICT recognises that many of these issues are educational ones and that the education process starts in kindergarten and that learning from many sources goes on while at school and long after leaving school or tertiary education. Professor Sterling points out: “Tertiary education is such a short period in a person’s working life and that the rapidly evolving discipline of ICT requires a concerted team effort by all stakeholders during and post secondary and tertiary education”.

Furthermore, he notes that it is unhelpful if industry complains about the lack of work-ready graduates, or the quantity of graduates, if it is not prepared to be involved in the education process. “To maximise our domestic ICT capability and address the skills shortage for the long term, industry needs to be committed to and to invest more in the education process before and after the moment of graduation.”
The Australian Curriculum, Assessment and Reporting Authority is revamping the K–12 ICT curriculum which requires greater ICT capabilities of the teachers. Universities can and do help in the professional development of teachers and ACDICT will assist in the identification and dissemination of best practices employed in the sector to support the professional development of these ICT teachers.

Many good practices are already being used by institutions to address the issues raised. Key ACDICT activities are to identify and disseminate the ones that are having an impact, such as enticing more females into ICT, improving perceptions of ICT careers, and bridging the gaps between industry and tertiary education.

However, Professor Sterling stresses that: “Collegial and cooperative efforts between organisations, industry and government are essential if sustainable solutions to the ICT skills shortage are to be implemented.”

There are many examples of co-operative ventures between industry and educational bodies already in place, such as The Big Day In of the Australian Computer Society Foundation, National ICT Careers Week supported by many organisations, and Group X National managed by NICTA. Professor Sterling comments that: “If more people recognised that education is not solely down to schools or universities, and were prepared to invest in sustainable lifelong domestic education processes, the long term future of the Australian ICT industry would be guaranteed.”

At their recent Annual Council Meeting, the Council of Deans of ICT endorsed a comprehensive Action Plan which utilises a collegial approach to address many of the issues associated with the ICT skills shortage. The endorsed Action Plan is at:

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