THE HUMAN SIDE OF OUTSOURCING

IT skills and education – deskilling Britain

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The skills gap is preventing the UK IT industry from competing with the US, according to a December 2011 survey from CWJobs, reporting 61% of IT pros believe there is currently a skills shortage in the UK.

It is true that in the UK, we have a plummeting number of students studying IT which is due in part to the "dull and demotivating" subject matter, as expressed by Michael Gove, the Education Secretary.

This year, IT sector exam results made for disturbing reading. Actually, it's not the actual results that are the real problem – it's the worryingly low number of participants. During the 2011 summer, a paltry 4,002 people took IT at A-Level (just 0.5% of the total number of students). Mathematics had a similar problem a while ago. This year, its number of A-level students is up to 7%.

Unfortunately, IT is heading in the opposite direction. A-level take-up is down 1.8% on last year – a continuation of a worrying trend that has seen IT attracting less and less students for eight consecutive years. At GCSE, the figures are even more dramatic – IT's adoption rate has plummeted by

23% this year alone, and when compared to five years ago, by an alarming 57%.

Some schools could be removing IT A-levels from their curriculum – due to a reduction in funding for Sixth Form students – and it looks like the decline in IT student numbers is a trend that will continue for many years yet.

Ofsted released a report towards the end of the 2011 stating that the teaching of ICT is inadequate in a fifth of secondary schools in England. Inspectors said teachers lacked the expertise and confidence to teach more demanding topics properly. The report also said areas such as databases and programming were poorly taught, with some pupils making more progress outside lessons than in them.

Andy Bristow, Manager, Hays IT, comments: "Skills development is critical to the UK's success. With most jobs now requiring some use of IT there is a real need for the education system to raise the level of our school leavers to ensure they have the necessary basic IT skills to make a meaningful contribution to the workplace. We now need to look beyond basic IT skills and address how organisations are going to attract the IT professionals they need in the future."

Coming at a time when Information Technology is more important than ever – where computers touch every aspect of our lives – this skills shortage, long-term, is a potential time bomb for the IT industry. Unless this situation is addressed effectively, there could come a time when IT is sent offshore simply because there is no-one left in the UK who can do the job anymore.

But, the example of A-Level Mathematics proves that the situation is not hopeless – it proves that young people do listen when the benefits and opportunities of taking a particular option are made clear to them.

"Skills development is critical to the UK's success"

There are opportunities in IT. The skills are in demand and the government needs to take the lead and ensure that the UK IT professional does not become an extinct species.

Steve Philp, marketing director, The Open Group, said: "Just last year, the European Commission (EC) warned of a potential 350,000-plus shortfall in IT practitioners in the region by 2015 and criticised the UK for failing to adequately promote professionalism in the industry. According to EC Principal Administrator André Richier, although Europe has approximately four million IT practitioners, 50% are not IT degree qualified.

Steve continues: "While there's a case to be had for ensuring IT practitioners have an appropriate education, more important is ensuring IT practitioners in the workplace are continually improving and developing their skills and capabilities – both as technical experts and as project managers."

Developments in technology, such as cloud computing, are having a profound impact on the day-to-day lives of IT professionals, forcing them to speak the language of business and ensure IT is closely linked to business objectives. Given such challenges, it is not surprising certification is being seen as more important than ever in the IT world.

ICT study developments

It seems that the lack of entry level jobs in recent years has led to IT graduate unemployment rising and with the cost of a degree increasing sharply, the UK technology community has to ensure that students continue to choose IT degrees and that employers create the roles for them to step into once they graduate.

However things are looking up. Education Secretary Michael Gove's recent announcement that the current programme of ICT study in England will end in September delivered a sigh of relief to everyone in the industry.

It will be replaced by what is called an "open source" curriculum in computer science and programming, designed with the help of universities and industry. Michael Gove said

that the changes will create young people who are "able to work at the forefront of technological change".

"Imagine the dramatic change that could be possible in just a few years, once we remove the roadblock of the existing ICT curriculum. Instead of children bored out of their minds being taught how to use Word or Excel by bored teachers, we could have 11-year-olds able to write simple 2D computer animations."

Initiatives

Public sector IT heads and industry bodies have also been calling for more local government IT departments to employ apprentices to fill skills gaps. Various organisations, with government funding, have also stepped up to the challenge to inspire learners through ICT initiatives such as STEMNET and Big Ambition.

Big Ambition, launched by e-skills, is an innovative programme that seeks to attract teenagers towards education and careers in IT. It focuses on helping 14 to 19-year-olds make informed decisions in a way that is accessible and interesting.

STEMNET receives funding from the Department for Business, Innovation, and Skills (BIS) and the Department for Education, to create opportunities to inspire young people in Science, Technology, Engineering and Mathematics (STEM) through networking, mentoring and speaking platforms.

The Livingstone-Hope 'Next Gen' review, published in February 2011, hopes to further influence the government's agenda and sets out how the UK can be transformed into the world's leading ICT talent hub focusing on video games and visual effects including the adoption of ITC on the National Curriculum.

At over £2bn in global sales, the UK's video games sector is bigger than either its film or music industries. Visual effects, the fastest growing component of the UK's film industry, grew at an explosive 16.8% between 2006 and 2008.

High-tech, knowledge-intensive sectors and, in the case of video games, major generators of intellectual property, these industries have all the attributes the UK needs to succeed in the 21st century, though we are already starting to lose our cutting edge. In just two years, it seems the UK's video games industry has dipped from third to sixth place in the global development rankings. Meanwhile, the visual effects industry, though still enjoying very rapid growth, is having to source talent from overseas because of skills shortages at home.

Companies that have announced support for the 'Next Gen' campaign include Google, Microsoft, Nintendo, Electronic Arts, Talk Talk, Sega and the Guardian Media Group. Facebook's director of policy EMEA, Richard Allan, has also commented that the social network is interested in joining the campaign.

Investment in education and training will be the key to the future. Unless we are very careful, IT work will be sent offshore not for financial reasons, but because there is no-one left in this country that can do the job anymore. The scrapping of the current ICT programme is a welcome addition. However we need to make sure, as a nation, we continue to take steps to fill this gap and ensure that the UK IT professional does not become an extinct species.