

# WHAT CRISIS?

**T**echnology now underpins every aspect of our lives. There are very few large commercial or public sector organisations that are not dependent on highly skilled technology savvy people for success. We appreciate that we are not in a position to tell teachers how to do their jobs and we don't pretend to understand the complexities of the classroom. However, we *can* tell you about the ICT skills shortages we're seeing across British businesses and what we believe needs to be done before the situation gets any worse.

In March 2012, leading ICT user group The Corporate IT Forum set up its Education & Skills Commission after a survey of its 320 participating organisations found that 59 per cent of businesses are experiencing a skills shortage. Getting the right people to work in our industries is becoming increasingly difficult. Despite a general decline in the overall jobs market, employment in IT is expected to grow at nearly five times the UK average over the next decade and demand for qualified IT staff has increased by 23% since 2010.

The Commission is a group of 28 IT leaders from a variety of organisations, including Tesco and McDonalds, who have come together to address what the business community and other key stakeholders need to do to tackle the skills issue. Its main focus is on addressing the 'current' workforce and the here and now. However, it is clear that solutions need to be part of a longer term and holistic approach that identifies and resolves issues impacting on skills shortages.

We welcome and endorse much of the fantastic work done, and being done, by others – in particular STEMNET, teacher-led groups such as Brian Sharland and Chris Allan from #digitalstudies and The Royal Society, whose January 2012 report, 'Shut down or restart? The way forward for computing in UK schools' was extremely useful and reinforced many of the Commissioner's own views and experiences. However, our priority is to ensure the 'IT employer' voice is heard.

## A new programme of study

In January 2013, the Commission published the first of four reports, starting at the point where all skills issues begin – school – with the first report entitled 'The Early Years'. In this report we outline a series of recommendations for the Department for Education and for schools and the bodies responsible for developing the new curriculum. While we welcome the Government's move to improve the curriculum, the Commissioners are concerned that Government interest in ICT is confined to the value of technology as a business sector rather than recognising the key role it plays in success across every industry. This is in part evidenced by the Government's near-exclusive focus on engagement with the companies that develop and sell technology and communications products and services in relation to consultation events and development of the new curriculum. We believe that the voices of the IT-dependent employer community and those of the teaching profession are every bit as vital.

We recommend that any new curriculum should embrace the universality of IT across all types of business and reflect the different 'levels' of knowledge required for different career paths. All managers of the future,

If the government really is to create a computing curriculum fit for the 21st century, then it mustn't ignore the voices of our young people's potential future employers, says John Harris, chair of the Corporate IT Forum...

regardless of whether they become IT professionals, will need an understanding of IT. The Commission also recommends that children experience a breadth of IT experience and don't 'specialise' too soon. This allows students to develop and maintain a portfolio of different IT experiences that they can build upon and take forward throughout their school career. However, this does not seem to have been reflected in the newly named 'Computing' Programme of Study, with information technology seemingly being given less importance over digital literacy and programming. By information technology, we mean the definition as outlined in the Royal Society's 'Shut down and restart' report - the use of computers in industry, commerce, the arts and elsewhere, including aspects of IT systems architecture, human factors and project management. IT is the enabler that underpins many different business functions, therefore it shouldn't be taught in isolation from other subjects.

## Inspiring a new digital generation

Another major area of concern for the Commission is how we inspire a new generation of children to engage and pursue a career in IT. According to the 'IT & Telecoms Insight Report' published by e-skills UK in 2008, the image of IT-related degrees and careers was that they would be repetitive and boring; for example the use of IT office applications such as word processing, spreadsheets, and databases. The report stated that the ICT GCSE



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### ABOUT THE EXPERT

JOHN IS VICE PRESIDENT OF ENTERPRISE ARCHITECTURE AT AIMIA, A GLOBAL LEADER IN LOYALTY MANAGEMENT. AIMIA OWNS AND OPERATES LOYALTY PROGRAMMES AROUND THE WORLD AND IN THE UK IS BEST KNOWN FOR OWNING NECTAR. JOHN IS ALSO CHAIR OF THE CORPORATE IT FORUM AND THE FORUM'S EDUCATION & SKILLS COMMISSION – THE VOICE OF BUSINESS IT ON THE TECHNOLOGY SKILLS CRISIS.



has a major part to play in creating their (negative) impressions.

Not enough is being done to explain the range of jobs available within IT. A trawl of careers materials found 34 job specific leaflets for engineering, 15 for law but only four for ICT, two of which were generic. ICT career materials and activities were also found to be not as good as those of other STEM subjects. Action is needed to get school children excited and to develop their understanding about the wide range of career opportunities in IT before they make exam and further education choices.

As a Commission representing large businesses, we accept that not enough IT professionals are involved in supporting teachers and schools, and this needs to change. There are, admittedly, numerous initiatives to encourage young people into careers in technology, but they are not joined up and easily accessible content does not reflect the breadth and scale of opportunities – particularly as a function within large businesses. We're currently working to support the production of careers materials which illustrate what a career in IT really looks like and to demonstrate the value of IT in everyday life. For example, the role IT plays in making sure water is clean when you turn on a tap.

In addition, we were concerned to learn of the changes introduced by the new National Careers Service, in particular, the guidance that schools should meet the costs of provision from their overall budgets, including the pupil premium, without guidance on minimum investment levels. This is why the Commission recommends that all schools should be required to ensure pupils have access to careers professionals with a STEM specialism and that the Government ensures that this requirement is funded adequately. It is critical that access to good careers advice is

not restricted to only the most disadvantaged or to those with parents who are able and willing to pay for advice.

### More support for teachers

For teachers, we appreciate that without the support and training on how to implement a new curriculum, schools will struggle to present a subject area where change is a constant. Again, there are a number of initiatives underway to support ICT teaching and to develop the new curriculum and related materials, but these do not appear to be joined up. A strategy must be put in place now to support schools that don't have highly skilled and trained IT staff to ensure they do not fall behind – as well as a longer-term strategy to ensure that all schools have experienced IT teachers in place to deliver the new curriculum in 2014. We are also calling for teacher-training programmes to be funded and designed to ensure that all subject teachers have the knowledge and skills to integrate IT and Digital Literacy into their daily teaching practice.

While we welcome the announcement last year to offer scholarships to attract high-achieving Computer Science teachers and the sharing of knowledge by 'expert' teachers, more investment is needed to ensure that all schools have access to appropriately trained IT staff. For example, we've recommended where resources are tight that schools could pool

specialist IT teachers and the use of centrally promoted online resources could be created to support teachers.

### The here and now

We recognise that we're recommending great change and without adequate funding and support it cannot happen. This is why we're calling for faster and more drastic action and investment from Government than is currently planned, as well as an urgent and comprehensive overhaul of the wholly inadequate careers advisory system. Unless immediate action is taken The Commission believes that whole swathes of the current generation of schoolchildren will simply not be IT literate enough to function in an increasingly digital world. As a Commission, we welcome feedback or suggestions on actions we can take as businesses to help teachers and schools in promoting and utilising IT.

For more information about The Corporate IT Forum Education & Skills Commission, visit [corporateitforum.com/skills](http://corporateitforum.com/skills), or if you are interested in giving us your feedback, email [skills@corporateitforum.com](mailto:skills@corporateitforum.com).

