

Quality not quantity

Handling the challenges of global competition for ICT jobs

2006 IT SKILLS TREND REVIEW

PRESENTATION SYNOPSIS ONLY

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for the

**IMIS - THE INSTITUTE FOR THE
MANAGEMENT OF INFORMATION SYSTEMS**

“All the business of war, and indeed all the business of life, is to endeavour to find out what you don't know by what you do; that's what I called 'guessing what was at the other side of the hill'” - **Duke of Wellington**

“There are three kinds of lies: lies, damn lies and statistics”
- **Disraeli (attributed to Mark Twain)**

“A forecast is a pretence of knowing what would have happened if what does happen, hadn't” - **Anon**

This is the latest in a series of annual reviews begin in 1991 when demand for IT Skills crashed after the boom of the mid 1980s. The 1995 and 1996 reports analysed the scale and nature of the expected pre-millennium IT Skills boom and post-millennium bust. They proved to be distressingly accurate in also predicting the Dotcom bubble, as suppliers sought to bring forward the wide-band multi-media revolution that is finally gathering pace to almost exactly the timescale predicted in 1995. The paying audiences for the reports had, however, very different needs. Almost all preferred customised presentations to comprehensive reports. Since 1997 we have therefore published only the synopsis. For more information please contact IMIS with your requirements.

Previous reviews in the series have built an impressive reputation for the accuracy of analysis and predictions but the speed of preparation and issue and very nature of forecasting entail significant risk of error.

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Handling the challenges of global competition for ICT jobs

Main points from the 2006 IT SKILLS TRENDS Review

1) Salaries for jobs that can be moved off-shore are stagnant or falling

Advertised salaries for most ICT roles have failed to keep pace with average wage inflation for the second year running because previously outsourced jobs are now subcontracted to India and the Far East. More-over the salaries on offer to experienced recruits are often little, if at all, higher than for those in post.

Headline recruitment effort for skilled and experienced ICT staff, roughly static since spring 2004, is falling and there are reports of hundreds of suitable candidates applying for vacancies. The growth in public sector demand over recent years has ended. The spending cuts in 2006 budgets will almost certainly increase as the service delivery rationalisation at the heart of the Transformational Government agenda gathers pace. In the meantime procurement delays in advance of the 2006 “fundamental savings review” will hit software and service sector recruitment because the public sector contracts accounted for over 60% of new systems demand in 2005.

But averages conceal some marked variations by location and by sector. Average salaries on offer for Project Managers *rose* 6.8% last year (including by 6.9% in the North East while they *fell* by 1.3% in Inner London). Those in the Public Sector *rose* by well over *double* the national average while those for jobs in the supposedly booming media industries *fell* (by nearly 6%). Meanwhile salaries for PC Help Desk support staff *fell* by 2% nationwide (and by 7.2% in the North East while they were static in Inner London), but *rose* by nearly 7% in the Public Sector and *fell* by over 25% for those working in the media industries.

The advice in the 2005 Trends Review to try to get a permanent post in the public sector was timely. Outside London and the South East there is little if any difference in headline salaries for most roles and the differences in terms and conditions, especially pension arrangements, more than make up what difference there is. Indeed protection from overseas competition means that salaries in the Public Sector are now better even in London and the South East for jobs like PC support.

2) “Systems” skills are at a growing premium over “Technology” skills

The neglect of the skills necessary to identify applications requirements (e.g. operations research and organisation and methods) or to manage relationships (e.g. classical account management) means that those with relevant training and experience (including as users) now command a growing premium.

The main cause of the “user hostile” and “failed” computer systems that have brought the industry into such public disrepute, has been the focus on Information Technology as opposed to Information Systems skills over the past 20 years. The consequent polarisation of salaries can be seen in, for example, sharp rises for those with experience of delivering customer-centric, rapid response systems in the retail and media sectors while overall recruitment effort in those sectors falls

The “world-wide-wait”, even over broadband-band, with abandoned transactions and lost sales, commonly results from failure to apply design disciplines developed over thirty years ago to overcome the technology constraints of the time. It was early discovered that ordinary human beings get impatient with systems that do not routinely respond within 2 - 4 seconds. But current on-line systems are rarely designed to make good use of the customer’s time, as opposed to optimising use of the network, database or call centre.

Hence the implosion of e-commerce as paying customers migrate to those websites where they already have accounts and whose reputation is such that they are content to accept performance enhancing spyware. It is said that over 90% of UK searches now pass through half a dozen portals: Amazon , BBC, eBay, Google, Yahoo and Yell and over 80% of users have similarly bought from barely half a dozen sites, which they tend to repeat visit, over the past month. That “shake-out, with its consequences for ICT employment, is being expedited by concerns over E-Crime.

3) The job creation and destruction effects of E-Crime

Demand is growing for those with the skills to make effective use of the confusing mix of semi-incompatible electronic security products and services but the supply of the necessary training, at all levels from end-user or small firm self-protection and support through supply chain and network security to investigation and enforcement, is fragmented and inadequate. The current trend for business and consumers to use only suppliers they already trust is therefore likely to continue and lead to a longer term reduction in choice and jobs.

On-line transactions and banking grew healthily in the UK during the run-up to Christmas 2005 but a recent (published March 2006) survey indicated that 80% would now ignore any e-mail purporting to come from a bank. The SBRT Quarterly survey of Small Firms for quarter 4 2005 indicated that almost all respondents used e-mail and over 80% had a website, but less than one in eight transacted over the Internet. The banks and credit companies report that losses from fraud are insignificant compared to the cost if users revert to branch banking but have recently limited external transfers (in one case to only £1,000 a day unless pre-arranged) and there is anecdotal evidence of small firms being crippled by fraudulent charge backs.

4) Will the build-up to the Olympics lead to turnaround or terminal collapse?

Recruitment effort for the skills necessary to deliver the infrastructure for the 2012 Olympics will peak in 2008 - 9. If the planned transformation of government services, is built around large scale, shared service contracts akin to those in the national plan for IT in the National Health Service or in prospect for ID cards, there will be a similar peak of demand to deliver results before the 2010 General Election.

The new generation of information systems (not just technology) degree courses launched last year will produce their first graduates in summer 2008. Those who do not start planning reskilling and retention programmes for existing staff this spring will therefore face growing problems from spring 2008 onwards. As with the Athens Games the Olympic programmes will then be handled by contractors drafted in from around the world while non-Olympic programmes will fall by the wayside, except where global rates are on offer. The reputations of those who did not plan ahead are unlikely to survive

5) IPR Wars (Proprietary v. Open Source, Copyright and Patent)

The UK spends more per capita on ICT than anywhere else in Europe. This is partly because of the size of our financial services industry but also because we make less use of standardised and shared applications. The growth of open source software, with material available for free exchange, especially across the public sector, looks set to widen that gap until such time as the UK catches up with the availability of the necessary skills. Demand for Linux skills in 2005 was 60% above that for 2004 and it is one of the few specialisms where demand is above that in 2001. To put this growth into perspective, however, SQL is mentioned in more than four times as many job adverts but this is less than half the number of mentions in 2001. The growth of Open Source in the UK may be limited by skills availability but is from a narrow base and the UK is not a market leader.

Disputes over copyright and patent, including over the originality of that which has been granted protection (as with the Blackberry case), are now a major obstacle to innovation in the “Western” world and until the structures are reformed to better reward those who bring genuinely new (reliable and fit for purpose) products and services to market may provide to be as much a barrier as an incentive to job creation.

6) Content is King, Service is Queen, ICT skills are Global

The use of Digital Rights Management systems, under shrink-wrapped licensing contracts, to remove “fair dealing” rights under domestic law does not appear to help create employment in the UK knowledge industries. The recruitment of ICT staff into the media sector appears to be in decline at every level. Meanwhile service has been moving to India with a similar effect on PC support jobs in all save the public sector.

Only in those Scientific and Media roles where genuine creativity is required and in Financial Services, where London may actually be overtaking New York as a global centre, does the UK appear to remain maintain competitive. ICT roles in the organisations concerned are increasingly sourced globally and the skills in demand and salaries on offer, even for staff to be based locally, are departing from UK norms.

The consequences of a global market for ICT skills are now being seen. Only those with skills in current and prospective demand by the public sector or by globally competitive private sector employers have good reason for optimism and even they need to consider how best to keep those skills up-to-date.

7) Action Plans: back to basics

- **Users: rebuild the skills to be “intelligent customers”**

The polarisation of ICT supply (hardware, software and services) between a shrinking group of western vendors (from Amazon and AoL through eBay and Google to Yahoo, from Accenture through CISCO, Fujitsu and IBM/PWC and Oracle to SAP and SUN) and the world of Open Source (from Stanford, CERN and Finland to Brazil, China and India) means that users have a growing degree of choice but commonly lack the skills necessary to make informed decisions. In particular, after a decade of outsourcing they lack the skills, if they ever had them, to know what their current or would-be suppliers are competent (after outsourcing and subcontracting) to deliver.

Many also lack the in-house skills to identify what their own end-users want, can use effectively and that their senior management will fund.

The CIO is piggy-in-the-middle and needs to rebuild relationship management teams in both directions and acquire sources of reliable information.

The good news is that many others have the same problem and the answer is almost painfully obvious: rebuild user groups akin to those of yesteryear and co-operate with your peers, including in negotiating with your common suppliers and, if necessary, lobbying government for action when suppliers threaten to abuse dominant positions.

The “common suppliers” should include suppliers of skills e.g. Colleges, Universities and training providers. Here the problem is not lack of consultation but overload. The need is once again to band together and force a wholesale rationalisation using the ICT Sector Skills Councils (E-Skills for traditional ICT, SEMTA for embedded software, Skillset for multi-media) as channel of choice and ensuring that they really are “employer driven”.

- **Suppliers: meet user expectations amid global competition**

Suppliers of Hardware, Software and Services to UK markets face a lean time unless they are focussed on winning framework contracts to help users follow best practice in adapting to the increasing pace of global change.

Most recent big-bang programmes (private as well as public) have been unprofitable to the supplier as well as painful for customer. In most cases only the salesmen, consultants and lawyers benefit. Incremental change, with no need to go out to further tender unless the supplier fails to deliver and with any disputes rapidly settled by independent mediation, are good news all round: including for the Finance Directors and Shareholders on both sides. Even lawyers get a much better rate for mediation within days than for taking weeks or months through normal channels.

Such a change also entails focussing on what users really need, including usability, adaptability and service over time. That may well militate against subcontracting support to third parties, because it is such a critical part of ensuring customer satisfaction and growing repeat business, including by responding rapidly to problems as they emerge. It almost certainly requires a much greater focus on supporting well-organised user groups and industry-strength market research so that you receive early warning of changes in expectations.

- **Individuals: take charge of your own future**

The collapse of in-house career paths means that even those in apparently secure posts must take commonly charge of their own updating and development paths, Unless they have an enlightened employer, those taxed in the UK must do this out of after-tax income: hence the IMIS calls to the current Chancellor, beginning when he was still Shadow Chancellor, to act on this anomaly.

- **Training Providers: co-operate in setting customer expectations**

UK commercial suppliers are focussed on delivering just-in-time training on skills in current demand while those funded publicly have 3 - 5 year planning cycles.

We need to bridge the gap: getting employers think ahead while bringing greater realism to the public sector. Both tasks need a willingness and creativity that has been missing for over 20 years. Perhaps, therefore it is not possible and most public sector spend on ICT skills will continue to be irrelevant to the needs of employers and our longer term skills needs will be met from outside the UK. If so, those who derive significant parts of their income from government, like most University ICT departments, will be condemned to long term decay unless they can build new revenue streams, working in partnership with commercial training providers and overseas partners, based on maintaining the skills of their alumni (wherever they are working) and of those (including the alumni of their overseas partners) working locally.

Both groups also need to co-operate in setting customer expectations as to the skills needed to make more effective use the technologies on offer.

- **Government: cut the after-tax cost of upgrading the UK ICT workforce**

Most public debate on skills is focussed on “first entry” skills: including 50% into University. But the UK is bottom of the OECD league table for workforce skills among developed nations because it lacks any serious framework for updating the skills of those already in the workforce. Much of the £6 billion a year Further Education spend is on “IT Skills” but almost all on courses better described as adult literacy and numeracy to fit the recipients for low-level end-user jobs.

Government first task is to adopt policies that will enable a workforce educated and trained, at best, with the IT skills of the 1980 and 90s to acquire, maintain and regularly update the information systems and content creation and management skills of the 21st century. That means replacing rigid long-term budgeting cycles by multi-speed planning routines that recognise reality: basic disciplines change slowly, if at all, the technologies used to apply those skills take 3 - 5 years to progress from launch to market dominance but forecasts as to which will do so and require mass market courses and qualifications are very often wrong. The prime need is therefore to enable UK education and training suppliers to derive a much larger part of their incomes from updating and retraining those they who they educated in the past.

The most effective means are:

- individually funded training costs to be fully offset against income tax
- employees under training to be exempted from income tax and national insurance
- replace DfES-driven consultation overload by industry-strength market research

Government second task is as the largest direct and indirect (via its contractors, partners and their supply chains) employer of ICT skills. It should collate its known forward requirements and plan how it will work with its suppliers to develop and deliver those that will otherwise be in short supply, when they are needed.

Given the predictable crisis of programme and project management skills in 2008 -9 that means using the early stages of the transformational government programme to use bottom-up, scalable sharing exercises to give high-fliers the end-over-end project experience, from conception to post implementation review, that is essential. One of the common features of the big systems fiascos of recent years is that those who did the original planning had never had responsibility for implementation.

- **ICT Professional Bodies: make a reality of CPD**

Too many Continuous Professional Development programmes have been brought into disrepute by lack of quality control. They have tried to expand the numbers by cutting the cost of assessing experience and performance and of providing career guidance and mentoring. There is a need to rebuild quality by focussing on those skills where the need for quality control is most obvious and on those individuals and employers who will pay for this. The new Institute for Information Security Professionals might provide an ideal opportunity for testing this approach.

IMIS is looking at the practicality of bringing together CPD, workforce updating, University alumni and modular life-long learning programmes, supported by professional career development and mentoring services. The plan is to identify a small group of internationally-minded university departments and employers who recruit from them, to organise a pilot that meets their needs, does not require external funding or approval and can be scaled if successful.