

A Digital & ICT Skills Action Plan for Yorkshire and the Humber 2005-2009



Foreword

The Digital & ICT Skills Action Plan for Yorkshire and the Humber is a living document designed to set the compass for digital and ICT skills development up to 2009.

It covers both the Information and Communications Technology (ICT) and digital media developments that are considered vital to the growth of the Region's competitive strength and economic prosperity in the 21st century.

The vision behind the Plan aspires to:

Give Yorkshire and the Humber **competitive advantage** by:

- Helping the workforce to skill up ahead of changes in technology
- Being innovative in how the Region develops education and training
- Investing in courses, facilities and expertise
- Sharing and spreading best practice

Create **job opportunities** for the Region's workforce and wider population by:

- Opening up and raising awareness of career opportunities in ICT and digital media industries for young people
- Helping learners to enter and progress in the digital workforce
- Ensuring that people in Yorkshire and the Humber can access learning opportunities as and when they need them

Energise the Region's **economic growth** by:

- Helping employers to make productivity and efficiency gains by adopting technology appropriately and effectively
- Ensuring the workforce has the right digital skills to meet emerging needs
- Helping citizens to take full advantage of on-line services

Headline targets

Overall the Digital & ICT Skills Action Plan will create 305,000 learning opportunities from 2005-09.

This will mean more than:

- 122,000 opportunities for the Current Workforce
- 64,000 opportunities for the Future Workforce
- 23,000 for Education and Training Practitioners
- 30,000 opportunities for Information, Advice & Guidance Professionals
- 66,000 for Citizens including Job Seekers

Developing the Plan has been a collaborative venture drawing together representatives of the major skills sector agencies from across the Region. Partners have jointly managed the project through a Steering Group made up of representatives from Business Link, e-Skills UK, Learning and Skills Council, Skillset and Yorkshire Forward. The success of this collaboration will be carried forward as

the foundation for implementation of the Plan to achieve the measurable targets outlined above.

Consultation has been the essence of preparation. The Plan has been developed over a four month period through an intensive series of workshops, meetings, individual interviews, document circulation and review. Over 140 stakeholders from employers, industry, public service and education and training provision have been able to comment on different drafts of the Plan as it developed ensuring 'sanity' and 'validation' checks throughout the process.

From the outset, the Steering Group recognised the importance of communicating the Plan as widely and as clearly as possible. This document has been developed to answer questions that stakeholders across the Region are likely to have – especially what the Plan covers, where it fits with other Regional initiatives and strategies, and what impact it will have on employees, students and citizens across the Region.

“Over 1 million of the 2.25 million workforce in Yorkshire and the Humber are currently using ICT and digital media on a regular basis. It is the most pervasive operational skill in the Regional Economy and is critical to the ongoing prosperity of the Region.”

Don Stewart
Executive Director, People
Yorkshire Forward

“The priorities of the Digital and ICT Skills Action Plan fit closely with the LSC’s priorities to ensure lifelong learning provision that is of high quality and easily accessible. We look forward to playing a leading role in the implementation of the Plan.”

Margaret Coleman
Regional Director
LSC Yorkshire and the Humber

Why digital not ICT? ***capturing the breadth***

'Digital' in this context means the broad range of technologies associated both with traditional computing and also with the rise of the World Wide Web. In addition, those technologies associated with the onset of multi-media, not only as applied in the audio-visual industries but also applied across enterprise and education. The term 'digital' therefore embraces both Information and Communications Technologies (ICTs), including web-related technologies, and all forms of digital media.

Digital skills refers to the development of both user and professional level skills, embracing not only desktop computing but also the spectrum of digital literacy through to specialist disciplines such as computer science and interactive media.

The Plan recognises that this 'digital' umbrella covers an extremely broad array of technologies and skills as well as diverse business activity. It therefore sets out to provide a solid platform of digital skills upon which specialist developments applicable to specific sectors such as the audio visual industries, bioscience or healthcare can build.

Why develop this Plan?

setting the compass

The Plan has been developed to provide a framework for the successful and vigorous development of digital skills across Yorkshire & Humber from 2005-2009.

It is driven by the recognition that digital skills will be a fundamental building block to a competitive economy in the 21st century.

The aim of the Plan is to enable the Region to adapt effectively to change and to be able to measure progress against specific targets.

The vision of the Plan is not constrained by known funding streams nor by current education and training provision.

The specific objectives are:

- To indicate opportunities and areas for improvement
- To influence the design of policy and programmes and the application of funding
- To establish a platform for specialist agencies and providers to respond to new technologies, changing processes and emerging competition
- To create a focal point for ongoing strategic collaboration across the Region
- To inform Regional, national and global partners of Yorkshire and the Humber's intent to be a leader in the digital and knowledge economy

How was it developed?

consultation, consultation, consultation

The Plan was commissioned and managed by a Steering Group consisting of:

- Learning and Skills Council
- Business Link
- Skills for Business Network (represented by e-Skills and Skillset)
- Yorkshire Forward

The development of the Plan was contracted through an open tender process to a consortium led by Sero Consulting working with CIDA, the Humber, York and North Yorkshire New Technology Institute (NTI), NTI West Yorkshire, and York Consulting.

An extensive consultation process was designed consisting of five stages and involving stakeholders from private industry, the public sector, the voluntary and community sector, providers of learning and skills and other key government-funded agencies.

Stage 1	9 stakeholder workshops with 110 attendees
Stage 2	30 individual stakeholder consultations
Stage 3	Circulation of an early draft version of the Plan to 140 stakeholders for comment
Stage 4	Individual validation consultations with each of the 10 organisations that would own targets for implementing the Plan going forward
Stage 5	A final validation and sanity check with 9 key stakeholders

Who is it for?***a plan for all***

The Plan belongs to the Region. It applies to employers, managers, technical professionals and users in the current workforce, as well as to individuals in their everyday lives as citizens, consumers and future workers. It is specifically targeted at five groups:

- **Those in the current workforce**
 - ICT and digital media professionals both in and beyond specialist digital industries
 - Users of desktop and digital media
- **Those in the future workforce**
 - Students at school, in college or at university
 - Professionals who need to become multi-skilled to adapt to new opportunities
- **Those outside the workforce**
 - Citizens for whom digital literacy could add value to everyday life
 - Those seeking employment
 - Groups that are currently under-represented in digital employment such as women
- **Those involved in information, advice and guidance services**
 - Advisory professionals needing a clearer understanding of digital & ICT career paths
- **Those involved in education and training delivery**
 - Teachers, trainers and lecturers needing to improve their own skills in ICT & digital media
 - Specialist teachers, trainers and lecturers who need to train up in new industry curriculum
 - Education & training professionals needing better understanding of digital & ICT career paths

“We are delighted to see that the needs of the citizen are a priority within the Digital & ICT Skills Action Plan. This will help Yorkshire and the Humber’s 5 million citizens to build up their e-confidence and fluency further to maximise their quality of life in the digital age.”

Isobel Harding
Head of Information Society Unit
Yorkshire & Humber Assembly

What does the Plan cover?***breakthrough thinking leading to practical steps***

The Plan covers the digital technology skills and knowledge requirements of both the workforce and the wider population in Yorkshire and the Humber. As such it covers not only the operational skills requirements of ICT and digital media professionals and office users, but also the digital literacy requirements of everyday citizens.

At the heart of the Plan lies a substantial body of analysis using a Regional Digital Skills Framework that incorporates the specialized sector skills models developed by e-Skills UK, Skillset and the Skills Framework for the Information Age. Details of the Framework and the skills analysis exercise are available in the full Plan on the Digital Yorkshire website at: www.digitallyorkshire.org.uk/skills.htm

The Plan sets out 37 recommended actions based on this analysis, together with feedback from the consultation process, and a review of a wide range of regional and national research. Each action specifies:

- Which skills requirements are addressed
- Who will own the action going forward
- Who will be key partners supporting the identified owner
- How the action will impact on the Region

Through its 37 recommendations, the Plan will:

- Identify workable interventions to deliver what both industry and society needs
- Set out the range of digital skills that are essential now - for digital specialists, effective managers and empowered citizens
- Provide mechanisms for updating that vision ahead of technology change
- Determine how digital technologies will make a greater impact on the lives and learning of young people who will form the future workforce
- Secure the opportunity for digital technologies to touch the lives and potential of every person in the Region through e-services and on-line learning

How does this Plan fit with existing strategies?

vital piece of the jigsaw

Delivery of this Plan is a vital component of a number of existing and emerging skill strategies at national and regional level.

National Skills Strategies

The Plan fits with a number of the priorities within '21st Century Skills', the Government's National Skills Strategy (July 2003) and more recently with the 14-19 Education and Skills White Paper (February 2005) and the 'Skills: Getting on in business, getting on at work' White Paper (March 2005).

Regional Economic Strategy (RES)

The acquisition of skills and knowledge has always been at the heart of the RES, and cuts across several of the 10 priorities identified in the Draft RES 2006-2015. Delivery of this Plan is a key priority for action within under Objective 3 of the Draft RES: 'Skilled people benefiting business'.

We know that we need to compete by harnessing the knowledge, skills and creativity of our people to improve the quality of our products and services.

RES Consultation Draft July 2005

e-Region Plan

The Plan will be aligned to the Yorkshire and the Humber e-Region Plan as it emerges, and particularly to those sections covering business skills, knowledge services and broadband access.

Regional Skills Partnership (RSP) / Regional Skills Alliance (RSA)

The RSP is the strategic lead for the Region on skills policy and priorities. This Plan is aligned with RSP priorities, focusing in particular on improvement in provision and progression routes for 14-19 year olds and adults, better engagement of employers and a greater role for regional employment and skills planning in determining education and training provision. Delivery of the Plan will be closely aligned to the principles of 'Better Deal for Business' and 'Better Deal for People'.

Sector Skills Agreements

This Plan selectively incorporates Regional priorities from the Sector Skills Agreements of two Sector Skills Councils, e-Skills UK (ICT, Telecoms and Contact Centres) and Skillset (Audio-Visual Industries). Both Sector Skills Councils were represented on the Steering Group overseeing development of the Plan and will play active roles on behalf of the Skills for Business Network in the implementation and governance of the Plan going forward.

“Put simply, our role at e-Skills UK is to help employers get the ICT skills they need to be competitive and productive. This Action Plan will be a major contributor to the increased competitiveness of Yorkshire & Humber employers as it has the flexibility to respond to their emerging skills needs”.

Karen Price
Chief Executive
e-Skills UK

The Learning and Skills Council Priorities

The local Learning and Skills Councils in Yorkshire and the Humber are amongst the key owners of targets within the Plan. Many of the LSC priorities fit well with the Plan including those which support the development of high quality and relevant opportunities for 14-19 year olds; making sure that learning is truly demand led so it better meets the needs of employers, young people and adults; providing skills needed to help all individuals into jobs and lifelong employability and; improving the skills of workers in the public sector.

What is the current state of skills development in the Region? *building on success*

A number of regional studies provide us with a clear consensus on the current state of skills demand and supply in the Region.

The demand side picture is as follows:

- Employers across all sectors recognise the need for technical skills
- Many SMEs in the Digital Cluster expect an increase in technical employment over the next three years, with particular demand for programming and web skills
- Just-in-time training is needed to help businesses adapt to rapid change
- Regional advantage requires working ahead of national qualifications to meet technology changes and associated skill requirements
- The Region needs to apply digital technologies more widely across the industrial/scientific base

On the supply side:

- There is uneven provision across the Region in ICT and digital media courses
- The pipeline of learners successfully passing qualifications and entering the ICT workforce needs to increase
- Reasons behind the stable or falling number of enrolments on generic ICT courses need to be addressed

Meanwhile, the Plan also builds on a number of existing successes, for example:

- The Yorkshire Forward ICT Vendor Skills Programme invested £2.8m in vendor certified ICT and digital media courses across the Region, building the capacity of Regional training providers and working with global industry partners.

“...significant achievements have been made by the ICT Vendor Skills Programme with a potential to cascade training to over four times as many learners.”

Impact Evaluation Report July 2005

- The Skills for Key Clusters Brokerage Model has raised awareness and demand for training, and introduced new and successful solutions in all four sub-regions.
- In The Humber, a Training Voucher Scheme has proved highly successful in meeting employers' requirements for flexible, just-in-time ICT training.
- In South Yorkshire, the JIGSAW (Job Interview Guarantee) pilot has filled vital skills gaps for IT Technicians and successfully placed unemployed graduates in creative and media industries.
- In North and West Yorkshire, the Quiclearn programme has provided bite-sized ICT learning tailored to a range of 'hard to reach' groups.
- In West Yorkshire, Cisco network training has been successfully introduced to school pupils, with a particularly high take up by girls.

What will this Plan mean for individuals and employers in the Region? *competitive advantage, job opportunities, economic growth*

All of the actions in this Plan will achieve one or more of the above impacts over the next five years. Perhaps the easiest way to explain the anticipated impacts is to look at what life will be like in 2009 if the 37 actions within the Plan have all been adopted.

The student

Fourteen year old Jane Turner is studying on a multimedia course at school including an industry certified web development component. As part of her course, Jane spends one afternoon a week for two terms at a web design and e-commerce company contributing to one of their projects for a leading online consumer brand specialising in youth fashion. When at the company premises, Jane is able to complete her learning log and receive support from her tutor back at school through the school's online learning service. Back at home, she completes and sends her assignment through to her teacher. Her parents are able to check her work placement commitments on the school's connected community system.

Jane's older brother, seventeen year old Joe Turner, elected to go from school into a specialist 'games development' apprenticeship. Joe works in a local interactive media company and receives on-the-job training as well as industry certified 3D design training at college, working towards a Foundation Degree in Animation and Games. The company has less than thirty employees and receives personnel support as part of the apprenticeship scheme to enable them to manage Joe's placement.

The company down the corridor is an IT service and training company and also has a young person on placement, but this time on a JIGSAW scheme offering a six month work placement combined with on-the-job training.

Mary, the company's JIGSAW trainee, was working in a warehouse after leaving school with few qualifications, but is now training to be an IT technician. One of the qualifications Mary did have leaving school was a Microsoft Office Specialist certificate so she was quickly able to adapt to the working environment, writing up reports and keeping a log of activity on an Excel spreadsheet.

Across the road, at the local university, Neelu Ahmed is on an IT degree course and is currently working on a joint project with the Nanotechnology Masters Course. Earlier in her degree, during the project management component, Neelu was studying the project management standards used by a leading Regional IT development company.

The citizen

Neelu Ahmed's family including her grandparents live round the corner from the Turners. Mr Ahmed senior is 77, loves gardening and has a big allotment with prize-winning chrysanthemums. He sometimes gets asked to feature on the local broadband TV channel and regularly contributes to a gardeners' discussion group on the My-Life website. Mr Ahmed is friendly with Jane and Joe's grandfather Mr Turner, an avid family history researcher. In fact, they met at 'Community Online', the local learning and resource centre, where Mr Turner does a lot of his family history research on the Net, whilst Mrs Turner, just turned 74, emails the family in Australia. Mrs Turner is currently spending a lot of time on the Net researching cheap flights to Australia for a major family expedition in the winter. They are connected up at home but Mrs Turner likes the sociable atmosphere at Community Online and the fact that there are friendly assistants who advise on new services and what to do when the e-payment gets complicated. Mrs Turner is also currently spending quite a lot of time on the Yorkshire and Humber website for careers in creative and digital industries so she can better understand what her grandson Joe is doing in his games apprenticeship.

The educational professional

Back at school, one of 14 year-old Jane Turner's favourite subjects is French, partly because Miss Owen is such a good teacher. Lessons are a mixture of whole-class activity based round the whiteboard, combined with personal study time where students work on their tablet PCs. Sometimes they go to the Virtual Classroom suite where they join a class in France and share a lesson jointly taught by Miss Owen and Mlle Joubert. Miss Owen creates and adapts many of her own course materials, sourcing lots of useful resources from a regional languages repository available to teachers across Yorkshire and the Humber. These vary from PowerPoint presentations to interactive multimedia packages, many of them created by teachers in the region. As part of her teacher training, Miss Owen studied basic web design and development using Macromedia tools, together with a course on principles of online content creation. She already had Microsoft Office qualifications from school. When Miss Owen joined Cartfell school the induction programme included sessions on how to use the school's managed learning environment. She manages all her class schedules, assignments, marking and reporting through 'The Hub' as the Cartfell system is called.

Miss Owen's fiancé Tariq Khan is a lecturer in the computing faculty of the local Further Education College. He leads the College's 'Digital Service Specialist' course which has already trained up nearly 200 certified digital service engineers many of whom have been scooped up by the building trade and home technology retailers in the region. Like Alison, Tariq has Microsoft Office and Macromedia web-authoring skills and delivers some of his courses online. Next week he will be attending a specialist training course for the next generation of digital service engineer and then helping to develop and run a trial version of the course at college as part of an industry pilot in the Region.

The employer

One of Tariq Khan's digital service engineers has recently helped to install a new set of IP telephony equipment at Gail Turner's business. Jane's mother Gail runs a small manufacturing company making organic dog biscuits called 'Woof-it'. It started out as a home-based business with a website, but so successful was their web-based marketing (developed by Gail after receiving some start-up consultancy through the e-Business Academy) that the company now employs 50 people and exports to several European countries.

With ongoing advice and support from the e-Business Academy and a trusted and quality assured local IT supplier sourced through the Academy, Gail has continued to invest in technology so that everything is bought and sold online and all the company's management systems are online. That's partly because Woof-it ingredients have to be very fresh so they are ordered just-in-time and some of them come from specialist suppliers all over the country. One of the hallmarks of the company is regular customer contact with dogs and their owners maintained through personalised emailing driven by the customer relationship management system. Feedback from email and the website enquiry form recently prompted them to expand into a new line of medical diets which are proving popular. Research for specialist ingredients and sourcing new partners was all undertaken online. Much of this Gail does from home, connecting into the company's systems remotely and communicating regularly with key members of the team through a mixture of videophone and email.

The workforce

All staff at Gail's business have computers and are expected to have Microsoft Office skills as standard. According to their jobs, staff also need to be able to use the company's online purchasing and stock system, order tracking and customer database, for which training is provided. The company maintains its own website and a number of staff have web authoring skills. There is a staff training champion who oversees the various online learning packages that are available on the staff intranet covering some of the specialist systems but also various statutory and personal development issues like time management. The e-learning approach combined with just-in-time training courses provide a flexible way of keeping staff up to date and incrementally building up skills towards qualifications. Staff can stay on and connect to the Net outside of office hours and in the crèche area there is a learning pod where family members can come and connect to online services with their children. For some staff members, they are working from home in any case and they connect into the office systems remotely.

Mark Turner, Gail's husband, is a big help to Gail's business as he is a financial adviser working with one of the biggest financial services companies in the UK. It

was Mark that urged Gail to go online from day one on the basis that a small business could benefit just as much from using the Net as a big PLC. Mark's job is almost entirely away from the office doing a series of appointments and working from home in-between-times. With the constant stream of updates to financial services regulation, it is vital that he keeps up-to-date with the latest knowledge so the company system alerts him to regular online training bulletins, virtual master classes and interactive learning materials. He is also supported in attending conferences at least twice a year.

The information, advice and guidance professional

One of Mark and Gail's main concerns at the moment is how Jane and Joe's careers are going to develop and progress. Both are interested in digital media – Joe is already established in a games apprenticeship and Jane is showing signs of wanting a career in fashion design. They have done a lot of online research and recently went with their daughter Jane to meet with the school's career advice service. Luckily Jason Trippett, their adviser, had recently attended a course run by the Sector Skills Council for audio visual and interactive media industries on career paths in this thriving area. Jason was able to point them to a range of web sites including the one run by the Sector Skills Council with detailed information on specialist options. Jason is also part of a Local Authority team working with the creative and digital business network to set up vocational work placements like the one that Jane is already enjoying at local company Viz-a-Viz.

How will the Plan be implemented?

partners for change

Two groups will be responsible for implementing and monitoring the Plan at a strategic and operational level.

The Strategic Group will be the operational arm of the Regional Skills Alliance. This Group will receive regular updates from the Operational Group and will make key decisions on the overall direction of the Plan.

The Operational Group will consist of representatives from lead partners and key stakeholders including:

- The Qualifications and Curriculum Authority (QCA) (tba)
- Business Link
- Government Office Yorkshire & Humber
- Information Society Unit at Yorkshire & Humber Assembly (YHA)
- JobCentre Plus
- Local Authorities
- Learning and Skills Council
- Skills for Business Network (represented by e-Skills UK and Skillset)
- Ufi learndirect
- Voluntary/Community Organisations (tba)
- Yorkshire Forward

This group will meet quarterly to monitor progress against targets and Key Performance Indicators, to review market research and policy developments and to make recommendations for strategic development of the Plan to the Strategic Group.

The Operational Group will also agree and ensure effective communication of the rationale, the opportunities and the success of the Plan.

A Memorandum of Understanding will be signed to confirm commitment to participation in the Operational Group and to the collaborative action needed to implement the Plan.

Two additional groups, an Employers Forum and a Providers Forum, will be convened as required to validate specific issues arising from implementation of the Plan and to help ensure ongoing responsiveness and relevance.

Whose help do we need?

getting the job done in partnership

The success of this Plan is heavily reliant on the full engagement of business and skills support intermediaries operating across Yorkshire and the Humber. In the initial phase of implementation, a priority will be to raise awareness amongst these intermediaries of how the Plan can benefit their clients. To help in this process a two-page promotional document that outlines the main headline targets within the Plan is available for use by the intermediary network.

Where next?

A full version of the Digital & ICT Skills Action Plan for Yorkshire and the Humber 2005-09 can be found on the Digital Yorkshire website at:
www.digitalyorkshire.org.uk/skills.htm

Visit the website for regular updates on progress against targets and to add your comments on digital and ICT skills issues in the region through the email feedback facility.

We look forward to hearing from you.