

January 2009

**Becta** leading  
next generation  
learning

# Harnessing Technology for Next Generation Learning

Becta at work

A progress report 2008



# Foreword



Andrew Pinder, Chairman, Becta

It is an obvious truth to say that the economic future of this country depends on our future skills and creativity. The future facing us is likely to be radically different from our current situation. Our global competitiveness and the future of individuals depend on the agility and responsiveness of the education and skills system to meet these changing demands. We need to continually reshape, upgrade and innovate to meet a rapidly changing world and the rapidly changing needs of learners. Technology can help us meet this challenge.

Becta is the Government's agency in ensuring that technology is used well to improve education and skills. Our work, our successes and our challenges are set out in this annual report, *Becta at work*. In it, we describe what we have done over the year, identify where technology is leading to improvements and identify directions for the future.



Stephen Crowne, Chief Executive, Becta

There have been some notable successes this year. We have published a revised strategy, *Harnessing Technology: Next Generation Learning*, which sets out an ambitious agenda for change. We have worked with many partners to begin to turn this into a reality. We have begun a major programme to provide home access to technology for all children and young people. We have developed a major campaign, *Next Generation Learning*, which speaks to the key audiences of parents, employers and learners.

There are many challenges ahead; Becta is well placed to help ensure technology is used to transform learning, bringing new flexibility and reaching out to previously excluded groups. Much has been done, as the following pages show, but there is much more to be achieved and we look forward to working with all our partners in the future.



Andrew Pinder, Chairman, Becta



Stephen Crowne, Chief Executive, Becta

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# Harnessing Technology and Next Generation Learning



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# Introducing Becta

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As the Government's agency for technology in education and skills, Becta is responsible for ensuring that technology is used to provide better learning experiences and outcomes for all learners.

Becta is the Government's lead agency for the use of technology to improve education and training in this country. We support the strategic objectives of two government departments – the Department for Innovation, Universities and Skills (DIUS) and the Department for Children, Schools and Families (DCSF). We work to make sure that technology is used well to help learners of all ages to learn better, for the benefit of the learners themselves, their families, the economy and society as a whole.

Technology on its own cannot guarantee these improvements – change depends on the people who use it and shape its use – the learners, the teachers, the leaders, the policy makers and many others in the system. Much of Becta's work is about leading and managing partnerships to develop the changes needed to ensure the potential of technology is fully realised.

A major step forward for us during the year was the development and publication of the revised *Harnessing Technology* strategy. This provides a framework for our partnership work with a wide range of organisations and individuals. In this publication we will outline the key areas of our work based on the *Harnessing Technology* strategy and the progress we've made in priority areas during 2008.

An important element of our strategy is the *Next Generation Learning Campaign*. This aims to raise awareness among parents, carers, employers and learners of the benefits of the use of technology in education, creating the right environment for our strategy to work.



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# Becta's challenge

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Technology is changing our world. Broadband and mobile connectivity are becoming ubiquitous. Access to powerful internet-based resources is available over an ever greater variety of devices. Young learners are often early adopters of these devices.

The challenge for us is that for many learners their formal learning or training experiences with technology lag well behind the way they use technology themselves.

While there are many superb examples of really good practice and most schools, colleges and providers use technology to some extent, we are not getting real value from our investment in technology across the whole system. Right now, for many learners, technology is used superficially, as an adjunct to existing practice rather than in an integrated way to support deeper and more effective learning.

## Moving from some learners to all learners

Although schools, colleges and other providers have made good progress in the last few years, both in acquiring and using technology, only about 25% to 30% of them are fully using technology to its potential. Part of the reason for this is that to purchase, manage and use effective and safe technology on an organisational scale is still a complex change process, putting a strain on the energy and resources of education professionals. Part of the reason is that many leaders in the system do not understand the benefits that technology can bring if it is used well.

Becta wants to move all parts of the education system to adopting and using technology with greater confidence, competence and maturity.

We want all teaching professionals to use technology to enhance their teaching practice and find new ways of personalising learning to suit the different aptitudes and interests of learners. We want the effective use of technology to be embedded in teaching and learning.

We want all learners to have the ability to use technology at any time to help them learn, in discriminating and intelligent ways, inside and outside school or college.

## Creating the change

The challenge is to identify what to do about this and who should do it. Our ambitions can only be turned into reality through the actions of others, at both national and local level. A step change in the use of technology will need action from many areas; it will require intelligent leadership, a capable and creative workforce, a responsive curriculum and assessment system, challenging and demanding parents, employers and learners, and a strong supply industry providing innovative and quality products and services. We must work with partners across all sectors to develop our plans. Becta's goal is to develop a fully technology-confident system and for this we need a strong partnership approach, which we have set out in our strategy – *Harnessing Technology: Next Generation Learning*.

# Developing the strategy – Harnessing Technology

In March 2007, Ministers asked Becta to revise the *Harnessing Technology* strategy, first published by the Government in 2005.

The strategy was revised through an extensive set of expert seminars. It sets out how Becta will work with leaders and others at all levels of the system – with policy makers, partners, front-line providers, learners of all ages, parents and employers – to develop an e-confident system: a system that has the capacity and capability to harness technology to the full and be self-improving.

It sets out how this can be achieved by partnership actions that develop and improve five interacting components.

## Confident system leadership and innovation

Education and skills at all levels – national, local and institutional are all confident and innovative in the way they plan and use technology to support their priorities.

## Enabling technology infrastructure and processes

The technology infrastructure provides learners with anywhere, anytime access to high-quality resources suited to their needs, at the best possible value for money.

## Technology capable and confident providers

Schools, colleges and providers have the capability to make strategic and effective use of technology across all of their activities.

## Engaged and empowered learners, parents and employers

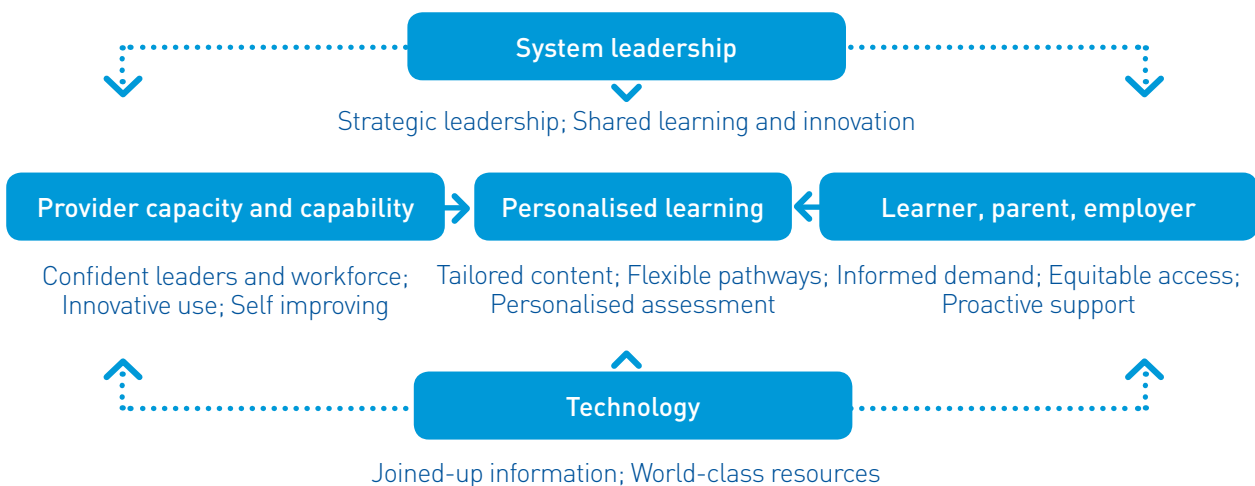
Learners and, where appropriate, their parents or employers, are more demanding and more discerning about their use of technology.

All of these components work together to improve the key processes of education and training.

## Improved personalised learning experiences

Learners have more flexible, tailored learning, better teaching and training, access to a wider range of learning materials, opportunities to learn at different times in different places, better assessment and tracking of their progress, and more effective engagement and communication with their parents, families and employers.

In essence, the strategy identifies how we are campaigning for learners to have the right tools for *Next Generation Learning*.



# Campaigning for Next Generation Learning

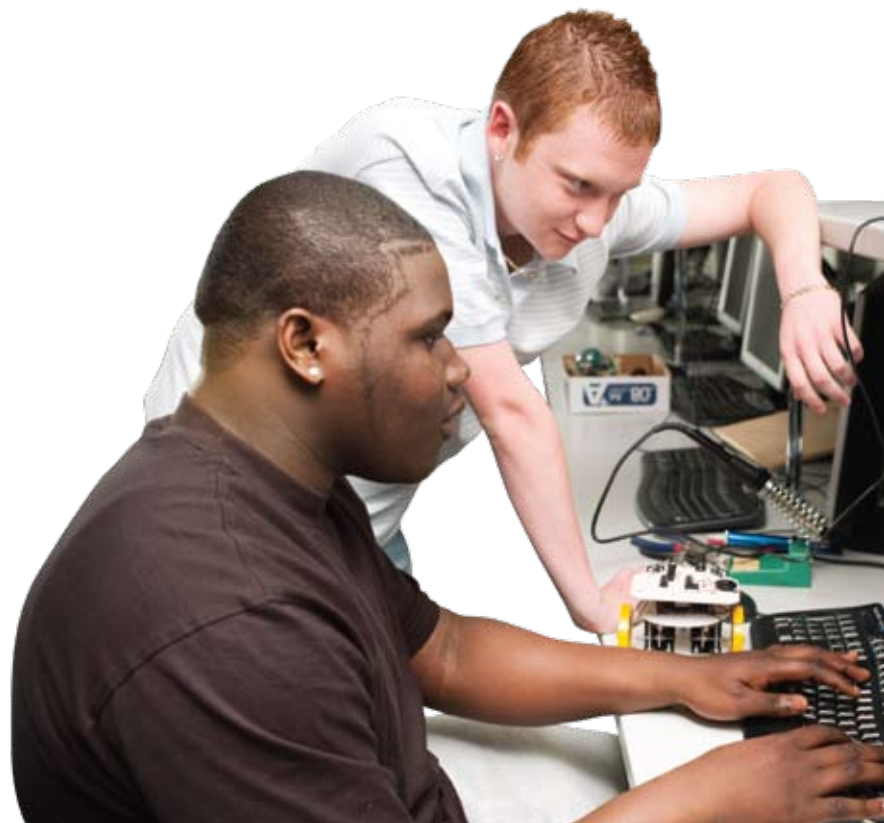
The strategy sets out the importance of stimulating demand in the system for the better use of technology. The *Next Generation Learning Campaign* aims to achieve this and ensure that parents, employers and learners are much better equipped with the knowledge and understanding of the benefits of technology for learning. We want them to use this knowledge to increase their expectations of their school, college or other provider, and make stronger, informed demands for better access, provision and support to excellent technology in learning.

This campaign does this by:

- raising awareness through a strong, exciting and persistent media campaign involving national and local radio, press and online publications
- providing excellent, practical materials to support families; guidance packs, information packs, website content and toolkits
- developing and promoting the campaign website [www.nextgenerationlearning.org.uk](http://www.nextgenerationlearning.org.uk)
- setting up commercial partner agreements with retailers and broadcasters to distribute campaign materials and provide support
- launching a specific campaign for schools around promoting the Next Generation Learning Charter linked to the Self-Review Framework

- targeting key opinion leaders, policy and delivery partners and policy makers to increase their awareness of the opportunities
- launching a campaign to employers – The Next Generation Learning @ Work campaign to improve awareness about the opportunities that effective use of learning technologies can bring to the workplace.

Thus, the *Harnessing Technology* strategy and the *Next Generation Learning Campaign* set out a framework for Becta's work for 2008.





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## Becta at work – leading and delivering change

In this section of *Becta at work* we set out evidence to demonstrate the progress that we have made towards the five elements of the revised *Harnessing Technology* strategy.

02

Becta at work –  
leading and delivering



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# Confident system leadership and innovation

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It is vital that leaders at all levels of the system understand and use technology well.

Our national role involves directly advising Ministers and other policy leaders and influencers. We have built key elements of the use of technology into the Department for Children, Schools and Families (DCSF) Children's Plan and worked with policy makers to implement these actions. We have contributed to DIUS's strategies including the Digital Inclusion Plan, FE global skills strategy and the development of the FE workforce channel. We have advised and influenced the Independent Review of the Primary Curriculum by Sir Jim Rose to ensure technology is seen as an essential skill for the future.

A notable success in strong national leadership has been the commitment by the Government to support nearly one million school age learners who currently do not have access to computers or broadband connectivity at home. Becta worked to support the development and adoption of the Government's Home Access Taskforce recommendations and is beginning to implement them.

Becta has fully established *Harnessing Technology* as a national, cross-sector and multi-partner strategy. We have established the National Strategy Group which meets quarterly, chaired by Becta's Chief Executive and supported by three National Delivery Boards.

Becta has developed the FE and Skills Implementation Plan in partnership with CEL, LLUK, LSC, Ofsted and QIA and with assistance from a number of providers, employers, learners and experts from across the FE and skills system. It aims to ensure that the whole further education system has the guidance and support to use technology confidently and imaginatively in teaching, learning and business systems. Becta is working with partners including NCSL, TDA, QCA, National Strategies, SSAT, GTCE, Partnerships for Schools, NAA and CLCs to develop an Implementation Plan for the Children, Schools and Families sector.

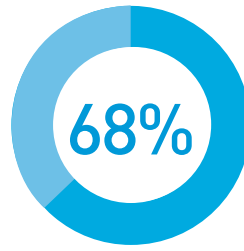
We have continued to support local leadership at a local authority and institutional leadership level. Our regional delivery team has worked to support local authorities at a strategic and operational level to improve outcomes for learners to implement technology effectively. Our capital programmes team has supported major capital programmes including Building Schools for the Future.

## Becta at work

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In the last year, Becta:

- established the National Strategy Group for the *Harnessing Technology* strategy and set up three Implementation Boards to support it
- influenced DCSF policy development, in particular in the areas of parental engagement and Home Access
- influenced DIUS policy development, for example, especially in the areas of adult learning and global skills
- made recommendations to Government following a review of the efficiency and effectiveness of the delivery chain for technology investment in the FE and skills sector
- collaborated with DCSF to support the 14-19 reforms including helping to ensure that systems are effective and interoperable and are based on appropriate standards
- ensured that the effective deployment of technology was embedded in Lifelong Learning UK's workforce strategy for the FE sector
- took forward the 'leading leaders network' offering examples of good and interesting technology practice for others
- awarded the ICT Mark to 984 schools.



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68% of primary heads reported that using technology to record learner progress was a priority for them over the next few years – up from 55% in 2007.

## State of the nation: leadership and innovation

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There has been significant progress in building confident system leadership and innovation.

All key national partners are signed up to the *Harnessing Technology* strategy.

99% of local authorities provided schools with advice about their ICT infrastructure.

96% of local authorities enabled teachers to share digital learning resources.

68% of primary heads reported that using technology to record learner progress was a priority for them over the next few years – up from 55% in 2007.

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48% of secondary heads said that they were giving high priority to using technology to communicate with parents.

Over 80% of further education colleges and over half of work-based learning providers have a written strategy detailing a full range of ICT use.

82% of all colleges have a dedicated ICT and e-learning strategy.

83% of work-based training providers use ICT to share information or data with partners.

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## Issues for the future

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There is an increasing gap between the best and worst schools, colleges and providers in terms of ICT leadership and management.

While three quarters of local authorities have their own ICT strategies, more needs to be done to align these with our national ambitions and to ensure that such plans result in much greater impact on outcomes – such as narrowing achievement gaps, developing world-class skills and opening up choice and opportunity for the most disadvantaged communities.

Innovation is being encouraged across the system and good practice shared and adopted, but leaders still tend to focus on using technology in management and administration rather than in teaching and learning.

Online reporting to parents is helping to develop better relationships between schools and parents. Although tools and systems are available to enable this, adoption is relatively low. Communicating with parents is also relatively low among headteachers' priorities, adding to the challenge of making progress in this area.

In colleges, ICT strategies are mainly developed by senior staff. Consultation with other staff is less widespread and consultation with learners even less common.

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# Enabling infrastructure and processes

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To get the best from technology, schools, colleges and other providers need to plan and implement to ensure that their technical infrastructure and their use of management information and resources better support learning.

We have set out a clear vision of how technology supports teaching and learning and worked closely with Partnership for Schools to integrate this vision within 'Strategy for Change'. This is critical when designing new school and college buildings and adapting existing ones. Educational outcomes, rather than specific technologies, need to be the starting point for innovation in building, so it is crucial from the outset to define what those outcomes should be, linked to a vision of how technology could help deliver them. Only then can schools, colleges and other providers design the ICT infrastructure, and the other spatial elements associated with changes in teaching practice.

With ICT now funded from core budgets, schools, colleges and other providers need to achieve best value for money from often substantial investments and they need to ensure they are in line with public procurement regulations. This all demands careful planning and thoughtful collaboration. Our practical technical specifications and procurement processes and guidance support this and are actively working with local authorities and others to implement them.

We are driving the national implementation of learning platforms so that they give learners access to a range of high-quality resources, tailored to their needs, at the best possible value for money. We help education and training providers to take advantage of the buying power offered by our EU-compliant national frameworks and the collaborative provision of services.

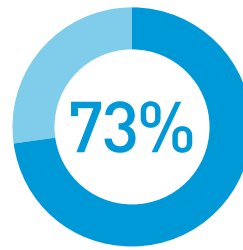


## Becta at work

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In the last year, Becta has:

- developed a service level agreement with DCSF for the Capital Buildings Programmes, enabling our team to play a crucial role in major school building programmes
- strengthened our working relationships with Partnerships for Schools and the National College for School Leadership in order to deliver co-ordinated support to Building Schools for the Future (BSF) and the Primary Capital Programme
- continued to provide direct support and advice to Academy project teams
- provided guidance to local authorities on developing their 'Strategy for Change'; and worked on behalf of Government in scrutinising LA BSF Strategy for Change documentation
- established a procurement framework (focused on both developed schools and colleges) for best value procurement for institutional infrastructure, learning services and management information; and identified and encouraged aggregated technology-enabled procurement opportunities
- established a listing of suppliers who have demonstrated compliance to Becta's defined service standards and have developed ongoing monitoring of suppliers
- created a focus on the 'total cost of ownership' for ICT solutions
- developed functional requirements, information advice and guidance for the use of e-portfolios with apprentices
- worked with the Information Standards Board and its special interest groups to support appropriate data standards for platforms, learning opportunities and transcripts, for identity management, and in connection with the 14-19 reforms
- improved value for money achieved from economies of scale through adopting a collaborative approach
- worked with the Learning and Skills Council and JISC Infonet to support the vision of technology in the FE Capital Programme.



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73% of all teachers regularly used interactive whiteboards in lessons.

## State of the nation: infrastructure and processes

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There has been steady progress in implementing a joined up education infrastructure.

The number of computers in schools increased by 65% over the last five years, to a current estimated level of 1.8 million, approaching one computer for every three secondary pupils, one for every six in primary.

In 2008, almost all secondary schools were using a Management Information System (MIS), and around 80% of primary and special schools.

40% of authorities reported that a single MIS system that everyone used had been introduced across all of their schools – up from 28% in 2007.

73% of all teachers regularly used interactive whiteboards in lessons – up from 42% in 2006.

About a quarter of teachers uploaded and stored digital learning resources at least once a week on the school's network – an increase from 2007.

69% of further education practitioners used computer packages with learners in all or most programmes.

Two thirds of practitioners say they regularly used digital resources when planning lessons.

Around 40% of both primary and secondary schools planned to use their local authority purchasing framework.

About a quarter of teachers feel that interactive whiteboards save them time. Nearly two thirds of work-based learning practitioners that use them reported that online resources saved time.

Learner services are becoming more and more integrated, but few schools reported that their information management system could be accessed via a learning platform.

In many cases, the technology infrastructure for learning in schools and colleges is not as efficient and sustainable as it could be.

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## Issues for the future

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The use of learning platforms, and their integration with management information systems, has increased during the last year. However, this use is still at an early stage of development in schools and most schools' infrastructure does not support mobile and remote access to the network.

More high-quality, tailored resources are available to more learners than ever before, but more than half of secondary school ICT co-ordinators said their schools did not have enough desktop computers or interactive whiteboards.

In many cases, the technology infrastructure for learning in schools and colleges is not as efficient and sustainable as it could be – few schools have a strategy for technology that is part of their approach to sustainable schools.

Almost half of secondary school teachers used self-created resources to plan the majority of their lessons, but they used digital resources created by colleagues much less frequently.



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# Technology-confident effective providers

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As education and training providers make more confident and effective use of technology this will improve the experience of learners and help to ensure better outcomes.

Nationally, we must raise our sights and significantly increase the proportion of educational providers who are making good and confident use of technology. This means schools and colleges need to continually review and improve their approach to technology. The Self-Review Framework is a fundamental tool, providing guidance on what best practice looks like, and on how schools can plan and manage their technology systematically to achieve real excellence. Becta has led its development and adoption in partnership with teachers and headteachers, local authorities and key national agencies.

The framework is based around a set of statements that reflect a nationally-agreed set of standards and summarise different stages of technology maturity. By comparing themselves to these statements, schools review their existing approach, benchmark themselves against other schools and create an action plan for future development. Along the way they can apply for the ICT Mark, a nationally-recognised indicator of competence and success.

Schools achieving the ICT Mark are four times as likely to be judged 'outstanding' or 'good' by Ofsted.

We are developing a similar self-review approach for the Further Education and Skills system and have established the baseline level of 'e-maturity' in FE colleges, work-based learning providers, adult and community learning providers and offender learning providers. Underpinning this development is a whole organisational approach to technology, which recognises its role in supporting teaching and learning and delivering efficiency by supporting better streamlined business processes and systems.

For schools the technology creates great opportunities and opens new possibilities for learners but it can also expose them to potential risks. Becta has been working with local authorities and Local Safeguarding Children Boards (LSCBs) to ensure that effective risk management strategies are in place wherever and whenever children and young people have access to technology – inside or outside school.

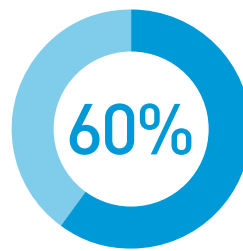
To be effective, providers need to use technology as a key conduit for communicating with learners and their carers. Greater parental engagement at every stage of a school career, particularly for children from disadvantaged backgrounds, has become a core part of the Government's Children's Plan. By September 2010 every secondary school in England will be able to provide secure, online access for parents to the latest information about their child's life and work at school. The target for primary schools is 2012.

## Becta at work

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In the last year, Becta:

- enabled over 13,000 (56 per cent) schools to use the Self-Review Framework to review and plan their use of technology
- took forward the 'leading leaders network' offering examples of good and interesting technology practice for others
- established the Technology Exemplar Network with the Learning and Skills Council enabling leaders and practitioners in the Further Education and Skills system to benefit from peer support
- collaborated with 46 key local authorities and partners to develop a national LSCB toolkit, designed to help Local Safeguarding Children Boards develop their e-safety plans
- worked with over 95 per cent of local authorities to support them in developing their e-safety plans
- advised key government departments to ensure that e-safety was treated as a mainstream element in national and local children's safety policies
- revised our accreditation programmes to incorporate new products and services and to meet the needs of wider children's services
- worked with DCSF and partners to ensure technology is strategically positioned within the national parental engagement programme
- worked actively with more than 200 schools across all sectors and all regions to develop peer support networks
- supported over 630 secondary schools with the worst truancy problems to deploy text messaging systems for swift parental contact as part of initiatives to improve attendance
- established the baseline level of 'e-maturity' in FE colleges, work-based learning providers, adult and community learning providers and offender learning providers, and scoped an international benchmark for FE workforce capability in the use of technology
- worked closely with LLUK, IfL and LSIS and other partners in the development of a national programme for technology-focused CPD
- worked with stakeholders, across FE and skills, including 280 colleges and providers, to develop an e-maturity framework and online tool which will enable providers to self-assess, measure their distance travelled and develop their capability in the effective use of technology
- worked with LSIS to develop a joint Becta/LSIS programme of work for college governors which focuses on the strategic role of technology.



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60% of colleges now report making widespread use of ICT as a traditional classroom tool.

## State of the nation: confident providers

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Over the last few years the way education providers make effective use of technology to improve educational outcomes has been a story of steady but slow progress towards e-maturity.

Most schools have their own website, usually providing school news and parent resources, such as a calendar of events or school policy documents.

46% of secondary teachers said that they used internet resources in at least half of their lessons – up from 33% in 2007.

Teachers predominantly use ICT for whole-class activities, confirming their preferred use of ICT for display and presentational purposes.

32% of secondary school teachers said that they used ICT with pupils working on their own in half or more of their lessons – up from 22% in 2007.

41% of colleges used ICT in all or most programmes to give learners remote access – up from 26% in 2006.

80% of primary and secondary schools said they were using their school website for providing resources to parents – almost double for both since 2007.

16% of secondary teachers said they felt 'very' or 'quite effective' in using ICT – up from 12% in 2007.

60% of colleges now report making widespread use of ICT as a traditional classroom tool, including the use of interactive whiteboards and other screen technologies.

Around half also use ICT in colleges with traditional learning resources as part of blended learning in all or most of their programmes. Both of these uses increased considerably since 2006.

Where e-safety is addressed, most learners claim to be aware of how to keep safe online.

## Issues for the future

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A significant number of providers do not score well against e-maturity criteria and much work remains to be done to increase the number identified as e-mature.

There seems to be a sizeable minority of practitioners in schools and colleges who are reluctant to engage with ICT.

Around 80 per cent of primary and secondary schools said they were using their school website for providing resources to parents. However, very few schools used their website to communicate directly with individual parents – 4 per cent of primary schools, 3 per cent of secondary schools and no special schools at all.

Setting homework that involves using ICT appears to have stalled in schools, with a smaller proportion reporting this than last year.



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# Engaged and empowered learners, parents and employers

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When learners have access to effective technology and the information and resources it delivers, they become more engaged with their own education. No learners should be excluded from learning opportunities that technology can provide.

To get the most out of technology learners need to be both confident and competent in their use. This means they need to be supported to develop the skills they need, and they must feel that the technological environment is safe and secure.

Technology can also support learning outside of a formal education setting, and offer the possibility of re-engagement with education by those who are disaffected or excluded. The way technology can give learners the flexibility to work outside the classroom, particularly for those balancing training with work commitments, is critical in supporting a successful demand-led system.

If technology is to have its full impact, as a transforming force in education and skills, then all learners must have access to the equipment and services they need, including good broadband access to the internet.

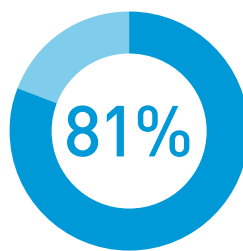


## Becta at work

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In the last year, Becta:

- developed the *Next Generation Learning Campaign* including a media campaign, a website, materials for parents and signing up key partners
- announced a Next Generation Learning Charter for Schools
- provided expertise and practical support for the ministerial taskforce on Home Access
- run initial schemes on Home Access in 40 schools across England and established a robust evidence base for the Home Access initiative
- begun implementing a full pilot of Home Access in two local authorities ready for a national rollout
- supported the Computers for Pupils initiative, which provided ICT for learning at home to over 50,000 families (some £60 million in funding was channelled through this initiative)
- developed and published support materials to promote the use of assistive technology in the Home Access programme
- initiated a proof of concept project and established a stakeholder advisory group for Adult Access to Technology
- worked with the National Learner Panel and the National Union of Students to explore the role of technology in learner voice and the role of social media in supporting learner involvement across FE
- developed a network of business leaders who are ambassadors for our Next Generation Learning @ Work campaign, and developed the depth of our engagement with business leaders and breadth of our engagement across employment sectors.



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81% of practitioners agreed that ICT improved the range of learning opportunities available to learners.

## State of the nation: engaged learners

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The evidence shows that there has been some progress. Schools and colleges not only provide discrete ICT lessons but also develop pupils' capability through other subjects, but this is often relatively superficial use of technology which doesn't develop higher order skills.

50% of primary school pupils reported using a computer on their own in school during lessons and 67% used a computer in a group in school during lessons.

Around three-quarters of FE learners used computers at college and 70% of these said that access to computers at college was good.

Nearly all work-based learning providers have computers on their own premises for learners' use.

In further education, 84% of learners have access outside college, using a computer at home for their college course.

34% of schools reported using a computer in school during break or lunchtimes and 46% have used a computer in school before or after school.

Around 10% of schools had a home access scheme in place and these schools were more likely to report that teachers set more homework requiring ICT use.

Nearly half of learners aged 16-18 are very confident in their use of ICT.

Around one third of FE learners said they were very confident in using computers for a wide range of tasks.



## Issues for the future

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A proportion of school age learners do not have computer access outside school. This is strongly related to social class. 97 per cent of children from social class AB have internet access at home, but only 69 per cent of children from social class E.

Parents would value schools' use of online channels for communication of information. There is clearly a big opportunity in this area, but also a need for support and advice to schools, and those who support them, to move schools more swiftly from where they are now to better meet the aspirations of parents.

Technology can add value to family and informal learning, but there is still a gulf between the way technology is used at school and in the home.

The Government's target for schools to offer online reporting to parents by 2010 (secondary) and 2012 (primary) can support better relationships between schools and parents. However, schools' capacity in this area is currently at a very low level.

Only 20 per cent of FE learners do not have access to technology outside of college. However, access is less widespread among older learners.

FE learners' skills and confidence with ICT are also age related. Younger users make more use of technology and are more confident in their use.

Although 81 per cent of secondary and 70 per cent of primary schools regard access to technology outside school as important in improving pupils' engagement, schools often limit access.



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# Improved personalised learning experiences

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To achieve the best educational outcomes, teaching and learning resources should be tailored to the needs of each learner. Technology can help bring this about. It can give learners the choice to learn at a pace and time to suit their needs. It can improve teaching approaches and extend the choice of study modes available to learners.

Technology can improve the planning and delivery of teaching and learning, as well as making the learning experience more dynamic and interactive. It can help to ensure learners find the learning process more meaningful, enjoyable and engaging. It can help teachers personalise learning around the interests and aptitudes of individual learners, including those with special needs.

It can also improve assessment, shaping the tasks that learners perform, affecting how those learners view themselves and their progress. Technology can provide more engaging and accurate forms of assessment, which enable learners to perform to the best of their ability and gain recognition for all their achievements, while being easier for teachers to manage and use.

Learning platforms are a key tool for supporting personalisation, providing wider access to learning, helping with assessment and raising attainment. They can provide anywhere, anytime access to repositories of digital resources, increasing the range and quality of materials on offer. When integrated with school management systems they can support closer performance monitoring and individual pupil learning paths, as well as giving pupils themselves more flexible options in the way they manage their work.

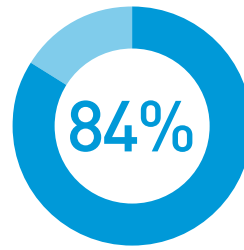


## Becta at work

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In the last year, Becta:

- managed projects that gave secondary school teachers the opportunity to experiment with repurposing learning materials and digital learning resources
- published advice and guidance developed with schools on implementation and the effective use of learning platforms
- launched and evaluated pilots in the use of e-portfolios for professional development (e-portfolios make it easier for teachers to collect and collate their work and reflect on its success)
- ensured more teachers are gaining time to work with pupils by using mobile technology for classroom assessment and record keeping
- worked with awarding bodies to promote the adoption of the system's interoperability framework to ensure better data transfer within providers' own systems and between providers, central agencies and awarding bodies.



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84% of learners have access outside college, using a computer at home for their college course.

## State of the nation: personalising learning

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There is a small but growing use of e-portfolios, especially in further education and work-based learning.

Some 40% of colleges used ICT in all or most programmes to enable learners to study at a time convenient to them – up from 25% in 2006.

Two-thirds of college learners also felt they did better in assessments through using computers.

44% of further education practitioners agreed that the use of ICT had led to their students learning more effectively, and one third felt that it had improved learner satisfaction.

Most pupils who advocated change in school ICT provision and practices wished to see the relaxation of usage restrictions imposed by the school.

Just over a quarter of college learners said they were required to use a learning platform as part of their course.

60% of college learning platform users who used a computer at home said they had accessed the learning platform at home.

40% of work-based learning providers offer some of their learners an online learning space, but most of these only on some of their learning programmes.

72% of work-based learning providers and 81% of practitioners agreed that ICT improved the range of learning opportunities available to learners.

31% of colleges reported that they commonly use online assessment on many courses or across the whole college – up from 12% in 2006.

## Issues for the future

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The statistics show that more learners are able to exercise choice among flexible learning options, but very few schools have relaxed restrictions to enable the more communicative, creative or collaborative ICT uses or practices associated with Web 2.0 applications.

While nearly all teachers use some form of electronic approach to produce pupil reports, only 10 per cent of secondary school teachers use technology for assessment purposes at least once a week.

Technology can offer engaging learning experiences that support deep and higher-order learning, but this is dependent on many factors: the physical location of the computers; the curricular organisation; the experience of the teachers and lecturers; the type of learning environments beyond the schools and colleges; the range and depth of support from local authorities.

As much of the emphasis on personalised learning is on the 'supply' side of the education system – schools, colleges, local authorities, industry suppliers – choice is often conceived in terms of the range of resources available. E-assessment makes possible a wider range of strategies by giving students the variety they prefer.

At present, few people on the 'demand' side know how to ask for what they need. For example, among primary school children there is a strong dichotomy between 'fun' technology and 'work' technology.

Some pupils also feel that introducing fun could distract from real work. Many do not appreciate that the communicative or creative aspects of technology can be used for learning. The need to develop a more 'informed choice' is a key aspect in personalising learning.



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## Becta at work – future directions



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# Next Generation Learning in progress

## Future directions

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Although we have made good progress to date in the deployment and use of technology, we now need to go further and have a much higher national ambition. We still need to get better value from its use, particularly in helping to develop the skills and competitiveness we need as a country for the future.

Despite the fact that there are really good examples throughout the system, there is a growing gap between the best and the worst. None of us can ignore technology now – it is part of the learner's world and everyday life. The effective use of technology throughout the education and skills system can no longer be optional. We will therefore continue to lead and implement the strategy, but with even stronger challenge and support to all parts of the education and training system. We can and must do better.

Our focus will be on impacting on all – not just those who are already persuaded. We will do this by:

**strengthened leadership and partnership**

– being clearer and more persuasive about the benefits of technology, providing greater direction as part of our leadership and generating stronger partnerships to deliver the strategy

**creating a small number of system interventions**

– that bring about specific, accelerated system-wide changes and improvements, through carefully designed interventions.



## Next steps: Becta's leadership role

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Becta will lead the strategy by being clearer and more persuasive about the benefits of technology and provide greater direction as part of our leadership and partnership role. We will continue to work across the education system, particularly focusing on the schools and further education and skills sectors.

We will commission and analyse research to provide evidence on the utilisation of technology in education, and to provide advice on improving its application and impact. We will continue to support and influence policy makers, making clear our vision for next generation learning in the digital age. We will communicate our messages about the benefits of harnessing technology in education to all our audiences.

We will continue to provide the self-improvement tools which educational institutions use to track and direct their progress to more mature uses of technology. We will work with partners to implement the Byron Report and to ensure learners are safe and secure in their use of technology. We will continue to develop and specify a well-founded infrastructure architecture to support the education system, and the deployment and use of learning platforms. We will work to secure procurement efficiencies and improve environmental sustainability.

Our work with key partners will be managed through our Sector Implementation Boards, which will develop specific plans of activity for both Becta and its partners.

We will challenge all those in leadership positions to work with us in our campaign to drive the purposeful and intelligent use of technology to transform choice, opportunity and achievement.



## Further Education and Skills Implementation Plan

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Becta has already developed a three-year FE and Skills Implementation Plan in partnership with CEL, LLUK, LSC, Ofsted and QIA and providers, employers, learners and experts from across the FE and skills system.

This has successfully begun to deliver a strong set of partnerships and activity to ensure that the whole further education and skills system has the guidance and support it needs to use technology confidently and imaginatively in teaching, learning and business systems. Our focus will be on impacting on all – not just those who are already persuaded. We will do this by:

implementing a [systematic national professional development programme](#) and regional support for the FE workforce and leaders in the effective use of technology, linked to professional standards

developing a supported [network of business leaders](#) who will be advocates for flexible and online delivery, to give employers and providers the opportunity to share best practice and support innovation

providing learning opportunities through technology for the 'digitally excluded', for disadvantaged learners and for small businesses

taking forward the [Next Generation Learning Campaign](#) to raise awareness of, and increase demand for, learning through technology

[raising the quality of technology products and services](#) via a system-wide National Digital Infrastructure, advice on effective procurement and a focus on digital content

accelerating quality improvement by considering how the effective use of technology might best be embedded in any revision to the inspection process and professional workforce standards.



## Children, Schools and Families Implementation Plan

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Becta is working with partners in the Children, Schools and Families sector to develop an Implementation Plan for the *Harnessing Technology* strategy – including NCSL, TDA, QCA, National Strategies, SSAT, GTCE, Partnerships for Schools, NAA and CLCs.

A central part of this will be to focus our efforts, and those of our partners, on those key processes where the evidence is compelling that technology can improve them:

**Better teaching and training** – better planned lessons, more exciting motivating content leading to more powerful and higher order learning; better teaching of difficult concepts – to raise motivation and deepen understanding and raise overall standards

**More flexible, tailored learning** – access to wider range of learning materials, flexible learning options, extending opportunities to learn at different times in different places, particularly for pupils moving between intuitions or at risk of failure and those juggling competing commitments from work and home – to improve access, improve continuity and reduce attainment gaps

**Better assessment and tracking of learner progress** – and more effective use and sharing of information – to focus resources effectively, evaluate performance and set ambition

**More effective engagement and communication with parents and families** – to ensure parents are well informed and can maximise their contribution to children's learning.

## System actions

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The evidence indicates that as well as our leadership and partnership work, we also need to look to accelerate progress, through carefully designed interventions. In particular these interventions will aim to move the education system from the current position where about 20-30% of educational institutions are making good use of technology to a position where at least 80% are doing so. The kinds of interventions we are considering are:

### Continuing to raise expectations of parents:

Becta will continue to focus our campaign to inform parents of the benefits of technology in supporting their own engagement with their children's learning

### Supporting schools to meet targets for parental engagement:

We will work with local authorities and commercial suppliers of learning platforms and other technologies to ensure that all secondary schools have online reporting systems up and running by 2010 and all primary schools by 2012

### Enabling capital investments to embrace a world-class vision of technology:

We will ensure that we get maximum return on this 'once in a generation' investment that the Government is making. We will promote a high-quality vision of the infrastructure and ensure through fit-for-purpose standards that technology is effectively embedded within all capital programmes

### Working towards all children having Home Access:

We will ensure that we will deliver the Home Access programme to create a scheme for accredited providers, a system of grants for parents and families to purchase accredited equipment and to create a marketing campaign to keep stakeholders up to date on the Home Access initiative

### Working with Government so that 14-19 partnerships make effective use of technology:

14-19 is a key policy area where technology has a particularly strong and distinctive contribution in this area. We will produce a clear vision of the use and benefits of ICT in 14-19 partnerships, and identify best practice and networks for knowledge sharing

### Workforce equipped to use technology for teaching, learning and management:

We will produce a clear vision for leaders and staff of the use and benefits of ICT and of their responsibilities. We will work with partners to raise the bar on standards for teachers for initial training and continuing professional development. We will prioritise high impact ways of building the confidence and skills of teachers, lecturers and assistants

### Developing better ICT solutions for primary schools through managed services:

We will develop ICT service solutions focusing initially on primary schools. We will pilot, evaluate, refine and develop them into a system-wide approach and drive up the proportion of primary schools with managed services.

## Building stronger partnerships

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Our future activity will not be taken forward and delivered by Becta acting alone. Becta has appreciated the support of many partners, from local authorities to education agencies to government departments to schools and colleges to industry partners and others. We are asking them all to help us work towards more effective use of technology across the education and training system.

We recognise there is much we can do to clarify roles and explain what we expect from our partners. We hope to help them achieve their objectives, while ensuring that technology has its place in the heart of their plans and activities. As well as asking all our partners to generally support the *Harnessing Technology* strategy, we will work through the Sector Implementation Boards to determine in detail with partners the specific contributions they make.

### Becta's partnership with local authorities

Local authorities are a key ally in our work. We have recently reviewed our regional and local delivery system and are reshaping our relationships with local authorities to help strengthen their strategic leadership and operational support. This will ensure we achieve more impact with the resources that are regionally and locally based.

### Becta's partnership with government departments

We expect to offer increasing support to the government departments as technology becomes more and more critical to policy development and implementation. We have already made good progress in areas such as parental engagement, 14-19, Home Access and other major developments. We also know that technology can help more in meeting key government objectives, such as narrowing attainment gaps, providing one-to-one support for children who fall behind, preventing young people from becoming NEET and providing support for vulnerable children.

## Abbreviations

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<b>BSF</b>	Building Schools for the Future	<b>LSC</b>	Learning and Skills Council
<b>CPD</b>	Continuing Professional Development	<b>LSIS</b>	Learning and Skills Improvement Service
<b>DCSF</b>	Department for Children, Schools and Families	<b>NAA</b>	National Assessment Agency
<b>DIUS</b>	Department for Innovation, Universities and Skills	<b>NCSL</b>	National College for School Leadership
<b>eMF</b>	e-maturity framework	<b>NEET</b>	Not in education, employment or training
<b>FE</b>	Further Education	<b>NGL</b>	Next Generation Learning
<b>GTCE</b>	General Teaching Council for England	<b>OFSTED</b>	Office for Standards in Education (England)
<b>IAG</b>	Information, Advice and Guidance	<b>PCP</b>	Primary Capital Programme
<b>ICT</b>	Information and Communications Technology	<b>PfS</b>	Partnerships for Schools
<b>JISC</b>	Joint Information Systems Committee	<b>QCA</b>	Qualifications and Curriculum Authority
<b>LA</b>	Local Authority	<b>SSAT</b>	Specialist Schools and Academies Trust
<b>LLUK</b>	Lifelong Learning UK	<b>TDA</b>	Training and Development Agency for Schools

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