

## Delivering **Digital Inclusion**

### Annex

Public Sector Use of Information  
and Communications Technologies  
to Support Social Equality

Communities and Local Government  
Eland House  
Bressenden Place  
London  
SW1E 5DU  
Telephone: 020 7944 4400  
Website: [www.communities.gov.uk](http://www.communities.gov.uk)

© Crown Copyright, 2008

*Copyright in the typographical arrangement rests with the Crown.*

*This publication, excluding logos, may be reproduced free of charge in any format or medium for research, private study or for internal circulation within an organisation. This is subject to it being reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the publication specified.*

Any other use of the contents of this publication would require a copyright licence. Please apply for a Click-Use Licence for core material at [www.opsi.gov.uk/click-use/system/online/pLogin.asp](http://www.opsi.gov.uk/click-use/system/online/pLogin.asp), or by writing to the Office of Public Sector Information, Information Policy Team, Kew, Richmond, Surrey TW9 4DU

e-mail: [licensing@opsi.gov.uk](mailto:licensing@opsi.gov.uk)

If you require this publication in an alternative format please email [alternativeformats@communities.gsi.gov.uk](mailto:alternativeformats@communities.gsi.gov.uk)

Communities and Local Government Publications  
PO Box 236  
Wetherby  
West Yorkshire  
LS23 7NB  
Tel: 0300 123 1124  
Fax: 0300 123 1125  
Email: [communities@capita.co.uk](mailto:communities@capita.co.uk)  
Online via the Communities and Local Government website: [www.communities.gov.uk](http://www.communities.gov.uk)

**75% recycled**  
This is printed on  
75% recycled paper

October 2008

Reference: 08RPD105574/B

ISBN: 978-1-4098-0629-5

# Delivering **Digital Inclusion**

## Annex

Public Sector Use of Information and Communications  
Technologies to Support Social Equality

# Contents

<b>Summary</b>	<b>5</b>
<b>Introduction</b>	<b>14</b>
<b>School-age education</b>	<b>15</b>
<b>Learning and skills</b>	<b>20</b>
<b>Digital infrastructure and markets</b>	<b>24</b>
'Serious Games' and social media	24
Smart metering	27
Broadband	29
<b>Transformational government</b>	<b>32</b>
<b>Information-sharing and data protection</b>	<b>35</b>
<b>Housing and planning</b>	<b>40</b>
<b>Transport</b>	<b>42</b>
<b>Health</b>	<b>44</b>
NHS Choices and NHS Connecting For Health	44
Local initiatives	47
Mental health	48
Integrated health and social care	50
<b>Communities in control</b>	<b>54</b>
Current and ongoing initiatives	54
Democratic engagement	55
<b>Work and pensions</b>	<b>59</b>
Jobcentres	59
Benefit payments	59
Pension, Disability and Carers Service	59
Cross-cutting transformational initiatives	60
Data sharing	60
<b>Directgov</b>	<b>62</b>

<b>Justice</b>	<b>63</b>
Courts	63
Public legal education	66
Debt and housing	67
Reoffending	67
<b>Rural communities and the environment</b>	<b>72</b>
<b>Culture, media and sport</b>	<b>76</b>
Digital switchover	76
The BBC	78
2012 Olympics	79
The Convergence Think Tank	80
<b>The third sector</b>	<b>81</b>
<b>Innovation</b>	<b>84</b>
<b>Social exclusion</b>	<b>87</b>
<b>International development</b>	<b>90</b>
<b>Regulation</b>	<b>93</b>
Ofcom	92
<b>Regional Improvement and Efficiency Partnerships</b>	<b>97</b>

# Summary

## A strong foundation of digital inclusion activity

The argument for a digital inclusion strategy has been set out in the main report. This annex notes the significant commitment, activities and resources within government that are being targeted at improving people's lives and life chances through the innovative and creative use of technology. The activities involved broadly cover a number of key areas:

- activities to raise awareness of benefits, improve access to technology and provide support and training to use information and communications technology (ICT) in order to enhance educational, employment and social outcomes
- enhancement and modernisation of public services to provide information and support in new ways, using technology. There are examples across government – in areas such as health, environment, rural affairs, work and pensions
- the use of modern electronic channels, in particular digital TV and mobile phones, to increase the reach of information and services
- capacity building in the third sector and in local government to raise awareness and capabilities around digital exclusion issues and opportunities
- innovation through competitions, challenges, awards, proof of concept projects, partnership hubs and creative processes
- research, for example on disadvantaged groups, media literacy and technology use and awareness.

## Key opportunities emerging

Although considerable activity across government is already being directed to addressing the risks and realising the opportunities of digital technology and the opportunities it offers to deliver better outcomes for disadvantaged communities and individuals, without coordination across government and its partners, opportunities could be missed. These opportunities, to deliver better outcomes for disadvantaged communities and individuals, are in areas such as:

- building digital inclusion into social policies and programmes being implemented for groups who are socially excluded
- extending the functionality and utility of technologies being rolled out to socially excluded or vulnerable groups, to improve social and digital inclusion
- rolling out to deprived communities or vulnerable groups physical infrastructure which has the potential to incorporate digital technology targeted at needs
- incorporating digital inclusion knowledge and awareness into the skills and competence frameworks of professionals who work with vulnerable groups

A summary of the current activity and future challenges, which are explored throughout this document, is set out in the table below. Please note that within this document and the table below several challenges, opportunities and aims are set out, which may be addressed in different ways. Nothing in this summary annex should be taken to imply a policy or financial commitment unless supported by a specific announcement from the department responsible.

### Summary of current initiatives and future challenges

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Children and families	<ul style="list-style-type: none"> <li>• Initiative for home access to technology for all learners (7-18) and support for its use in the home</li> <li>• Harnessing Technology national e-strategy for learners and children's services (Becta)</li> <li>• eMentoring trials for looked after children</li> <li>• Next Generation Learning campaign (Becta)</li> </ul>	<ul style="list-style-type: none"> <li>• Delivering home access for the most disadvantaged and hard to reach</li> <li>• Supporting schools and families to get the most from home access</li> <li>• Technology based opportunities for delivering alternative provision</li> <li>• Use of alternative platforms– set top boxes and games</li> </ul>
Learning and skills	<ul style="list-style-type: none"> <li>• learndirect advice service<sup>1</sup></li> <li>• learndirect courses and centres</li> <li>• Consultation on future of informal adult learning</li> <li>• Next Generation Learning campaign (Becta)</li> <li>• Technology strategy for further education, skills and regeneration: implementation plan 2008-2011 (Becta)</li> </ul>	<ul style="list-style-type: none"> <li>• Exploring IT training and media literacy training</li> <li>• EU target: reduce by half by 2010 the digital literacy gap between the EU population and specified disadvantaged groups</li> </ul>
Digital Inclusion	<ul style="list-style-type: none"> <li>• myguide</li> <li>• UK online centres</li> <li>• Get Online Day</li> </ul>	<ul style="list-style-type: none"> <li>• Targeting deprived areas not currently reached</li> <li>• Increase ICT use by citizens and widen support by government</li> </ul>

<sup>1</sup> Becta is the Government's lead agency for ICT in education.

<sup>2</sup> From 1 October 2008 the web and telephone-based careers advice functions managed by UFI transferred to the Learning and Skills Council in readiness for the establishment of the Skills Funding Agency with responsibility for the Adult Advancement and Careers Service. Web access is now via direct.gov at [www.careersadvice.direct.gov.uk](http://www.careersadvice.direct.gov.uk)

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Health	<ul style="list-style-type: none"> <li>• NHS Choices</li> <li>• Summary care records as part of the NHS Care Records Service</li> <li>• HealthSpace</li> <li>• Whole Systems Demonstrator Programme</li> <li>• Improving Access to Psychological Therapies</li> <li>• eClinics proof of concept</li> <li>• Information prescriptions</li> <li>• Health kiosks</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring that the most disadvantaged and hard-to-reach benefit from innovations in health information and service delivery</li> </ul>
Employment	<ul style="list-style-type: none"> <li>• Jobcentre kiosks</li> <li>• Job search via digital TV</li> </ul>	<ul style="list-style-type: none"> <li>• Extending the reach of and content available in kiosks</li> </ul>
Benefits and pensions	<ul style="list-style-type: none"> <li>• Online availability of benefit adviser; online benefit enquiry, change of circumstances and claim facilities being developed</li> <li>• Online services being developed for third party (eg Citizens Advice Bureau) access</li> <li>• Local service pension, disability and carers service (PDCS) using technology to provide more holistic visiting service for vulnerable customers</li> </ul>	<ul style="list-style-type: none"> <li>• Extending services to mobile devices and using more proactive techniques such as SMS and email alerts and information</li> </ul>



Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Transformational government	<ul style="list-style-type: none"> <li>• Transformation Programme delivering:               <ul style="list-style-type: none"> <li>– a focus on the customer rather than the supplier of public services, using customer insight and journey mapping as the basis for service improvement</li> <li>– joining up across government – to reduce wasteful duplication and enable greater personalisation of services</li> <li>– a reduction in the number of contacts citizens need to have to access services</li> <li>– rationalisation and better co-ordination of the channels through which citizens access services</li> <li>– better engagement with frontline staff to drive service improvement</li> <li>– specific service transformation projects such as Tell Us Once and Online Free School Meals</li> <li>– a wide programme of activity across government, as summarised in individual departmental service transformation plans which will continue to be developed over the comprehensive spending review (CSR) period</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring, wherever possible, that services offer choice as to how citizens access them, taking account of the needs of the user</li> <li>• Ensuring that all, including the most disadvantaged people and communities, benefit from the huge potential of ICT-enabled public service transformation.</li> <li>• Meeting the Riga targets for accessible government websites and local access facilities for online government services</li> <li>• Developing the Power of Information programme to promote innovative ways of providing all sectors of the public with better information about public services</li> <li>• Further transformational projects being considered under the Service Transformation Agreement</li> </ul>
Directgov	<ul style="list-style-type: none"> <li>• Directgov available via Internet, mobile and digital TV channels</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing and widening take-up</li> </ul>

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Digital infrastructure and markets	<ul style="list-style-type: none"> <li>• Government to respond to Francesco Caio’s review of next generation access (NGA) broadband</li> <li>• The Government consideration of the implications of convergence for future access to services</li> <li>• Smart energy metering trials</li> <li>• Supporting creative industries – particularly the UK games industry</li> <li>• Digital Britain Report</li> </ul>	<ul style="list-style-type: none"> <li>• The extent to which the need to deliver public services is being met</li> <li>• EU target: increase the availability of broadband in underserved locations – to reach at least 90 per cent of the EU population by 2010</li> <li>• Accounting for digital inclusion agenda in taking decisions regarding smart metering</li> <li>• Exploiting role of ‘serious games’ to reach out to excluded groups and in government communications</li> </ul>
Local service delivery (Communities and Local Government) (Communities and Local Government))	<ul style="list-style-type: none"> <li>• Digital challenge, DC10 plus and Digital inclusion team identification and rollout of digitally enabled services for excluded groups and places</li> <li>• Communities and Local Government national indicator Data Interchange Hub to reduce burdens and increase use of information for driving outcomes</li> <li>• Connected Neighbourhoods Forum Digital Charter and Framework</li> </ul>	<ul style="list-style-type: none"> <li>• Digital inclusion advisers within regional improvement and efficiency partnerships</li> <li>• Guidance on effective data sharing within Local Strategic Partnerships</li> <li>• Guidance on digitally enabled service delivery for all 198 national indicators, focusing on deprivation</li> </ul>
Third sector	<ul style="list-style-type: none"> <li>• Catalyst Awards</li> <li>• Capacitybuilders</li> <li>• Innovation Exchange</li> <li>• Social Enterprise Network</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring we support and harness the potential of the third sector to deliver digital inclusion – particularly volunteers</li> </ul>
Innovation	<ul style="list-style-type: none"> <li>• Innovation Nation</li> <li>• ‘The Key’ Innovation Showcase</li> </ul>	<ul style="list-style-type: none"> <li>• Building innovation capacity and capability and directing it at disadvantaged groups and the problems they face</li> </ul>

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Transport	<ul style="list-style-type: none"> <li>• Transport Direct – available via the Internet, digital TV set – top boxes with return paths and mobile phones</li> </ul>	<ul style="list-style-type: none"> <li>• Extending the reach of Transport Direct, either directly, or by enabling third-party access to back-office processing, so that all can benefit from it</li> </ul>
Information sharing	<ul style="list-style-type: none"> <li>• Data sharing guidance</li> <li>• New local network of advisers</li> </ul>	<ul style="list-style-type: none"> <li>• Achieving balance between intrusion into privacy while realising the clear benefits for improved service delivery</li> </ul>
Citizen empowerment	<ul style="list-style-type: none"> <li>• Power of Information programme</li> <li>• Digital mentors</li> <li>• Support for innovation in new technology, especially around community and social media and debate and deliberation</li> <li>• e-Petitions for local government</li> <li>• Democratic engagement strategy/digital dialogue pilots</li> <li>• Governance of Britain website</li> <li>• Digital dialogues</li> <li>• Building Democracy Innovation Fund</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluating impact of and sustaining/scaling digital mentors</li> <li>• Disseminating good practice around democratic engagement</li> <li>• Evaluating engagement activities to gauge impact</li> <li>• Investigating multi-channel engagement techniques to reach more people</li> </ul>
Justice	<ul style="list-style-type: none"> <li>• Virtual courts</li> <li>• Prison video links</li> <li>• Juror and witness DVDs</li> <li>• Public legal education via digital channels</li> <li>• Digital audio recording in Crown and county courts</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring that access to justice is provided as quickly as possible and at the lowest cost consistent with open justice</li> <li>• Ensuring citizens have greater confidence in, and respect for, the justice system</li> </ul>

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Reoffending	<ul style="list-style-type: none"> <li>• <i>Reducing Reoffending Through Skills and Employment: Next Steps.</i></li> <li>• Offender Learning and Skills Service; learning journey includes basic ICT</li> <li>• learndirect centres – currently in approximately 20 prisons</li> <li>• Polaris Project in eight prisons allows controlled web access</li> <li>• Prisons ICT Academy established in 20 prisons</li> <li>• Digital switchover in prisons</li> <li>• ‘Virtual campus’ being trialled in ‘two test’ bed regions</li> </ul>	<ul style="list-style-type: none"> <li>• Increasing access to internet-based services that can reduce the risk of reoffending, while working within security limitations</li> </ul>
Culture, media and sport	<ul style="list-style-type: none"> <li>• Digital Switchover Help Scheme</li> <li>• <i>Creative Britain: New Talents for the New Economy</i></li> <li>• BBC Charter public purpose around emerging technologies and digital switchover</li> </ul>	<ul style="list-style-type: none"> <li>• Convergence between the Internet and TV (IPTV); entertainment possible anchor tenant for home internet access</li> <li>• Potential for future help scheme set top boxes to provide access to a range of home-based services for people aged 75+ and disabled people</li> <li>• Opportunities around the London 2012 Olympic Games to inspire greater uptake of digital access to information and coverage of events</li> </ul>
Internet safety	<ul style="list-style-type: none"> <li>• Byron Review</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of Byron Review Action Plan and creation of Council</li> </ul>

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Integrated health and social care	<ul style="list-style-type: none"> <li>• Telecare: Preventative Technologies Grants</li> <li>• Telehealth: Whole Systems Demonstrator Programme</li> <li>• Technology Strategy Board Assisted Living Innovation Platform</li> <li>• Innovation Exchange Independent Living workstream</li> </ul>	<ul style="list-style-type: none"> <li>• Replacement of obsolete equipment</li> <li>• Development of interoperable equipment that delivers complementary internet services</li> <li>• Exploring the retail market for self-install equipment for family/ friend carers</li> </ul>
Rural communities	<p><i>Initiatives include:</i></p> <ul style="list-style-type: none"> <li>• Whole Farm Approach</li> <li>• Environment Agency electronic transactions – applications for permits, guidance and monitoring returns</li> <li>• Electronic livestock monitoring</li> <li>• Electronic animal health alerts</li> <li>• Rural Payments Agency strategy for greater customer self-service online</li> <li>• Natural England Environmental Stewardship on-line Entry Level Scheme</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring that rural communities and the farming industry benefit from innovations in service delivery</li> <li>• Ensuring that lead policy departments understand that an infrastructure gap should not translate into a service quality, economic and social gap between rural and urban areas</li> <li>• Support for rural UK Online centres</li> </ul>
Environment	<p><i>Initiatives include:</i></p> <ul style="list-style-type: none"> <li>• Act On CO<sub>2</sub> carbon calculator</li> <li>• Environmental and greener living content on digital TV and mobile phones</li> <li>• <i>Waste Strategy for England 2007</i></li> <li>• Environment Agency – NetRegs online service</li> </ul>	<ul style="list-style-type: none"> <li>• Ensuring greater reach and access to innovative environmental services and communications</li> <li>• Consideration of environmental implications of digital inclusion and coherence with Chief Information Officer-led strategy for government on green ICT</li> </ul>

Policy Area	Current Initiatives	Future Challenges, Opportunities and Aims
Social exclusion	<ul style="list-style-type: none"> <li>• Innovation Exchange</li> <li>• Innovation proof of concept projects for social exclusion Public Service Agreements groups</li> <li>• Customer insight research for social exclusion PSA groups</li> </ul>	<ul style="list-style-type: none"> <li>• Supporting the development of innovative solutions to the needs of excluded people</li> </ul>
Regional engagement	<ul style="list-style-type: none"> <li>• Awareness raising among Government Offices, Regional Development Agencies and Regional Improvement and Efficiency Partnerships of issues/ opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Embedding principles around digital equality into LAAs and MAAs</li> </ul>
Financial inclusion	<ul style="list-style-type: none"> <li>• Ensuring that everyone has access to a bank account and can use their account to manage their money effectively and securely</li> </ul>	<ul style="list-style-type: none"> <li>• New delivery systems for banking and payments (eg internet banking, mobile banking), which may make banking and other financial services easier and more attractive to vulnerable groups of people</li> <li>• New delivery systems may also marginalise some traditional ways of delivering financial services, which could serve to exclude some groups</li> </ul>

# Introduction

This document provides a snapshot of digital inclusion activity across government departments and public sector agencies. This is an area that is truly cross-cutting, with many areas of government contributing activities to promote digital inclusion, and almost all affected in some way by the consequences of digital exclusion. For each area of government we have:

- compiled current activities related to digital inclusion
- identified challenges and risks related to digital exclusion
- identified specific digital inclusion principles that relate to that area of government
- compiled actions planned for the near future.

This review of policy and action has been conducted with a particular focus on a number of key areas:

- **Active contribution to digital inclusion:** many departments and agencies have already recognised that digital inclusion is important for better service and policy delivery. There are already many activities under way to improve digital inclusion.
- **Overlapping audiences:** departments and agencies are working with socially excluded and vulnerable groups in many different ways, often focused on social objectives. However, these policies and initiatives can also be a vehicle for achieving digital inclusion, in addition to their primary social aims.
- **Common barriers and enablers:** similarly, departments and agencies may be working closely with or supporting a particular industry sector, or managing a profession, which could potentially promote digital inclusion in some way.

The sections that follow present some highlights of initiatives across central government, with key digital inclusion principles and actions to take forward. This is intended to be a reference document only, and it is recommended that the summary table and table of contents are used to navigate the breadth of content.

# School-age education

## Home access to technology

There are significant educational benefits associated with having access to technology at home. Home Access to technology gives learners greater choice about where, when and how they study. Research shows that this helps to motivate learners and improve attainment. For example, one study<sup>3</sup> showed student satisfaction with learning rising from 50 per cent to 99 per cent. The effective use of technology can mean real gains for people in a wide variety of circumstances. We also know that learning technologies in the home can serve as a focal point for parents to become more actively involved in their child's education. This collaboration between learner and parent can further enhance pupils' engagement and achievement.

The Home Access Taskforce has investigated how to make sure that every school-age learner has access to technology at home. The Taskforce made recommendations to ministers on the actions required to work towards universal access, both for the disadvantaged and for those who are yet to be convinced of the benefits of access to technology. In September 2008, the DCSF announced a home access initiative which will target the one million children with no access to a computer in the home. These children are disproportionately from disadvantaged backgrounds, and their limited access to technology reinforces attainment gaps and the initiative will also provide funding to local authorities to target groups which they have responsibility for, eg looked-after children.

In addition to tackling access, the Department for Children, Schools and Families (DCSF) has asked Jim Rose to include ICT literacy as part of his review of the primary curriculum.<sup>4</sup> The aspiration is that when children leave primary school they should be ICT-literate, so that at secondary school and beyond they can focus on utilising the technology and all it offers as part of their learning, rather than on the learning about technology itself.

At a secondary school level, functional skills qualifications in ICT are being piloted and will be available nationally from September 2010. Functional skills are those core elements of ICT that constitute the essential knowledge, skills and understanding to enable an individual to operate confidently, effectively and independently in life and at work. These skills will be incorporated into Diplomas, GCSEs, the Foundation Learning Tier and Apprenticeships, and will be available as stand alone qualifications for young people and adults as a replacement for Key Skills and Skills for Life qualifications.

## Children in care<sup>5</sup> and care leavers and care leavers

Children in care and care leavers constitute a priority for government, and ensuring their digital inclusion should be a core part of corporate parenting responsibilities. As well as managing the risks and assuring digital inclusion, there are opportunities to ensure that

<sup>3</sup> ICT Test Bed, [www.evaluation.icctestbed.org.uk/](http://www.evaluation.icctestbed.org.uk/)

<sup>4</sup> *Children's Plan*, p77

<sup>5</sup> The term 'children in care' refers to children looked after by local authority, including those subject to a care order under section 31 of the Children Act 1989 and those looked after on a voluntary basis through an agreement with parents under section 20 of that Act.



technology really delivers improved educational and social outcomes for this group.

Government can take action by:

- prioritising universal home access for children in care and care leavers: as corporate parents, local authorities are in a strong position to ensure that no child in their care, and no care leaver, goes without access to technology and the services that this enables. Government should be able to achieve its goals for children in care and care leavers in parallel with the main home access initiative
- technology can clearly help to deliver many of the principles outlined in *Care Matters: transforming the lives of children and young people in care* – for example supporting virtual head teachers and mechanisms for confidential feedback from children in care on the care they are receiving. The harnessing technology strategy is designed to support all learners including the most vulnerable and hard to reach. Becta and its partners will actively work to support these groups (see below for further information on Harnessing Technology)
- mentoring support has been shown to be helpful for children in care and care leavers. Technology can help to support mentoring relationships by enabling remote mentoring, either exclusively or as a supplement to face-to-face support, depending on the particular needs of the individual. Government will support trials of e-mentoring for children in care and care leavers.

### Harnessing technology

Harnessing Technology is a recently updated national e-strategy for learning and children's services. It aims to maximise investment in technology, develop an e-confident education and skills system; and ensure that all learners (school-age and beyond) benefit, including the most vulnerable and the hard-to-reach. It will deliver a learner entitlement framework that can be tailored to meet the needs of learners of different ages in different contexts. This will need to encompass:

- personalised learning, reflecting learners' interests, preferred approaches, abilities and choices, and tailored access to materials and content
- access to online support and tuition, alongside tailored personal support from trained advisers and other professionals
- entitlement to tools to support learning, and support to become fluent and proficient in their use
- integration of online learning with provision in school, or in the workplace
- the need for accessible online information, advice and guidance, raising aspirations, facilitating learning pathways, and enabling access to employment
- access to continuing support to acquire and update skills, including support in using technology safely
- appropriate methods and avenues for learner consultation and engagement.

Detailed plans to implement Harnessing Technology are being developed – the plan for further education and skills was published in April.

## Learning platforms

The Government is committed to transforming young people's experience of learning and education through the use of ICT. These targets offer tremendous opportunities related to digital inclusion, including:

- supporting vulnerable children whose education is frequently disrupted: looked-after children, young people not in education, employment or training (NEETs), young offenders, excluded pupils, the long-term sick and travellers
- providing anytime and anywhere, access to appropriate and engaging ways of learning
- providing a safe environment for pupils, who have fallen behind to catch up on the basics, such as numeracy and literacy
- increasing parental involvement.

Focusing on more vulnerable groups may mean that action is less focused on schools, which can be more helpful for NEETs or excluded pupils, who perhaps have greater trust in community-based support organisations or are in more frequent contact with other professionals such as social workers, youth workers or youth offending teams. There are some real opportunities to explore how learning platforms (such as virtual learning environments (VLEs)) can support vulnerable young people and the lead professionals outside education who work with them:

- DCSF implementation of participation legislation<sup>6</sup> will require new ways of working and engaging NEETs/NETS. Creative and innovative use of learning platforms to provide alternative and engaging educational provision could be an important component of delivering the legislation.
- Becta is evaluating a technology-based intervention to address specific challenges facing NEETs and those who work with them.
- There are some e-learning and virtual provision services to build on which are particularly important for pupils who cannot attend school due to emotional or physical health needs:
  - Notschool has supported over 4,000 of the most deeply excluded pupils: more than 70 per cent have gone on to college and many to IT jobs.
  - MyGuide provides very simple access to internet services for those who have no IT skills.
- Young people are most often technological natives, growing up using technology, – there is tremendous scope for using IT for more effective engagement in education, particularly for those who are turned off by more traditional forms of classroom-based learning.
- Supported online learning can have immediate benefits for disengaged pupils. Those include:
  - learner-focused education on their terms
  - a break from the focus on formal testing and the fear of failure
  - a greater focus on negotiated learning, collaboration, community, social networking and skilled facilitation
  - a focus on the technologies that young people use in their daily lives.

<sup>6</sup> There will be a duty on young people to participate in education or training at least part-time up to age 17 from 2013 and 18 from 2015.

- Effective learning platforms can potentially be an important support tool for professionals working outside mainstream school-based education to provide purposeful activities for the young people that they are responsible for supporting.
- This is a significant issue – there are currently 70,000 pupils in alternative education settings, and up to 135,000 young people spend some time in an alternative setting in the course of a year. Many have special educational needs.
- Government is investing £26.5 million in a radical transformation of alternative provision. As part of this we will welcome local authority proposals which include innovative digital solutions.

The key digital inclusion principle, underpinning this education work are as follows.

<b>Key principles:</b>	<p>Working with industry and the third sector, the Government vision is that all members of the next generation will be media-literate and have the opportunity to access technology during their initial education, both inside and outside the educational institution.</p> <p>Supported access to appropriate electronic learning resources will be available to all learners in their initial education, regardless of background or geographic location, according to need.</p>
------------------------	--

The Government is taking forward a number of actions, as indicated below.

Ref	Action	Lead(s)	Timeframe
1	The Home Access initiative for 7-18 year olds will be established and rolled out nationally from 2009, in particular providing support for children from disadvantaged and low-income families.	DCSF and Becta	From 2009
2	Information and guidance for schools, colleges, providers and families about issues of e-safety.	DCSF Becta	Ongoing
3	Desk review into the potential for interactive digital television and games to offer access to opportunities for learning	Becta and Futurelab	March 2009
4	Design and evaluation of a technology-based intervention to address specific challenges facing NEETs and those who work with them, based on what is already known about the potential of technology to improve outcomes for these young people.	Becta	By June 2009
5	Looked-after children to be one of the targeted groups within the home access programme. Review of opportunities and risks associated with looked-after children; alignment with Care Matters to be ensured and potential solutions agreed.	DCSF and Becta	By March 2009

Ref	Action	Lead(s)	Timeframe
6	Trial and evaluation of a scalable approach to e-mentoring support for looked-after children and care leavers, led by North Lincolnshire County Council children in care team and the Brightside Trust.	North Lincolnshire County Council and the Brightside Trust	By end 2010
7	Include ICT literacy as part of review of the primary curriculum. The aspiration is that children should be ICT-literate on leaving primary school.	Jim Rose for DCSF	Ongoing

## Learning and skills

There is a growing body of evidence showing that, when it is deployed creatively and effectively, technology can have a huge impact on teaching, training and learning experiences and outcomes. The effective use of technology can mean real gains for people in a wide variety of circumstances: there are those who plan to upgrade their vocational skills; others who need a second chance in a system which, for whatever reason, has previously failed them; and still others who simply want to learn for pleasure.

That is why the Government has invested some £300m since 1999 to embed technology in the further education system – a figure which colleges and training providers have quadrupled with their own resources. With high-quality digital resources becoming widely available, people can now learn in the workplace, home, community and even on the move. The 2005 National Adult Learner Survey clearly shows the increasing trend of using ICT in learning. In 2001 only 4 per cent of respondents said that they had used any kind of ICT in their learning activities, by 2005 this had risen to 38 per cent, and we know that this figure is continuing to rise.

However, for the reasons discussed elsewhere in this document, not everyone is in a position to take advantage of this and opportunities to improve ICT skills through UK online centres etc are therefore important. Recent research suggests that ICT has a major role to play as a means of initially engaging people or bringing them back into education and training. For example, research has shown that improving ICT skills carries much less stigma than studying literacy and numeracy, and it has proved particularly successful in engaging the hardest-to-reach learners.

In this way, all learners will be able to take advantage of the vision of the Next Generation Learning campaign, which is the goal of Harnessing Technology (the government's e-strategy led by Becta). A key drive in this strategy is to offer flexible delivery and pathways to suit every learner by working with training providers to ensure that, through technology, learning opportunities are made available to all including the digitally excluded, disadvantaged learners and small businesses. Becta has also done some development work for DIUS on a strategy for ICT Skills for Life, including for example raising the profile of ICT skills for life and promoting a range of delivery methods to meet the needs of a wide range of learners.

The Government recently consulted on informal adult learning, including how technologies can improve opportunities for learning. Informed adult learning can be for enjoyment, personal development, cultural enrichment and intellectual or creative stimulation. It also supports family learning and community-based learning designed to develop skills for social and community action. The Joint Information Systems Committee (JISC), an independent advisory body that works with further and higher education by providing strategic guidance. JISC is taking forward a number of actions to ensure higher education people are not excluded from higher education (and therefore from the benefits of a university education), but it will also be of benefit beyond higher education:

- Support for research and development projects aimed at improving the use or effectiveness of ICT, or to improve access and availability. For example JANET (UK) currently has projects on local internet protocol (loop unbundling, mobile IP) and location awareness – all designed to give students the same network access away from the campus environment as they enjoy on campus.<sup>7</sup>
- JISC's TechDis service helps those with disabilities who otherwise might not be able to fully enjoy ICT<sup>8</sup>

## Media literacy and basic ICT skills

Basic ICT skills are now important in many aspects of daily life – there is an increasing need to be able to access, understand and create communications in various electronic formats through, for example, digital television, mobile phones, information kiosks and the Internet on personal computers. Media literacy has parallels with traditional literacy, in that it is the ability to 'read' and 'write' audiovisual information (rather than text). At its simplest level, media literacy is the ability to use a range of media and to understand the information received. At a more advanced level it moves from recognising and comprehending information, to the higher-order critical thinking skills such as questioning, analysing and evaluating that information.

There is significant divergence of different groups within the UK in terms of media literacy. This is of concern, because electronic communications networks now play such a central role in daily life that without media literacy skills people's ability to participate effectively in the workplace and in society may be greatly diminished. This is an issue that is at the heart of digital inclusion.

Ofcom has a lead role in promoting media literacy and is undertaking significant research in this area, publishing reports on adults, children, minority ethnic groups, older people, those with a disability and those in the devolved nations and the English regions.<sup>9</sup> A few key points emerge:

- Age is a significant factor in media literacy: those over the age of 65 have significantly lower levels of media literacy than other age groups. This is in part due to the fact that they have significantly less access to the Internet and mobile phones than UK adults overall, which in turn is linked to a perceived lack of need for new digital services.
- Mobiles are an ubiquitous form of media technology for the 16–24 age group. Younger people have embraced the enhanced functionality of mobile phones, while for older users they are still seen predominantly as communications tools.

<sup>7</sup> See page 6, [www.ja.net/documents/publications/news/news-1.pdf](http://www.ja.net/documents/publications/news/news-1.pdf)

<sup>8</sup> [www.jisc.ac.uk/search.aspx?keywords=techdis&filter=s](http://www.jisc.ac.uk/search.aspx?keywords=techdis&filter=s)

<sup>9</sup> [www.ofcom.org.uk/advice/media\\_literacy/medlitpub/medlitpubrss/](http://www.ofcom.org.uk/advice/media_literacy/medlitpub/medlitpubrss/)

- Informal learning is important: many people, especially the elderly, say that they prefer to learn media skills from family and friends and do so by themselves rather than in formal groups.
- There is latent interest in learning; the Ofcom research found that the area of most interest to many people is in learning how to use the Internet. One-third of people say they are interested in learning more about digital platforms and services.

The UK has signed up to EU ambitious targets that are related to media literacy. The aim is, by 2010, to have reduced by half the 'digital literacy' gap between the general EU population and disadvantaged groups.

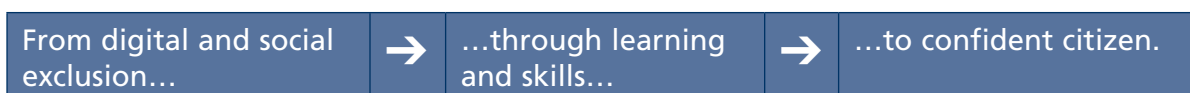
The importance of basic ICT skills was recognised in the 2003 White Paper *21st Century Skills: Realising Our Potential*, which announced that basic ICT skills would be recognised within the Skills for Life strategy, alongside literacy, language and numeracy.

In the UK we have some excellent programmes and qualifications to develop and improve ICT skills such as the new NVQ for IT (ITQ). DIUS are currently considering how to address some of the issues that faces ICT as a skill for life, including qualifications above entry level, the funding regime and standards or qualifications for teachers.<sup>10</sup>

UK online centres provide people with access to the Internet and e-learning opportunities. There are some 6,000 centres. Around half of these are in public libraries, a third are in local community centres and voluntary organisations and some 10 per cent are based in colleges. In many cases these have been sited in order to reach the most disadvantaged and hard-to-reach communities:

- 65 per cent of citizens engaged by UK online centres are socially excluded.
- 80 per cent of the most deprived medium-level Super Output Areas have a member centre.

UK online deliver a wide range of ICT and e-services, including 'first time online' taster sessions, basic skills assessments, e-skills passports and access to a range of e-government services. The foundation for its work has been the 'user journey', which was introduced in 2006 to support progression and provide a framework for the activity, and a product range that forms their curriculum.



UK online centre's product range includes, for example, Myguide, which teaches people the basics of using the internet and email. Myguide is an open source tool and can therefore be used by any college or training provider, or independently by individuals wishing to become media literate.

<sup>10</sup> <http://www.bcs.org/server.php?show=nav.5677>

It should be emphasised that the role of UK online centres and Myguide encompasses more than media literacy and ICT skills. For example, with Myguide basic ICT skills is just part of the service and a means to an end to deliver benefits ie access to online public services, savings through online shopping, family health, finance etc. UK online centres have also run specific projects to increase the usage of online government services and to improve the lives of vulnerable groups, so they have much broader significance across the range of government policy.

The key digital inclusion principle underpinning adult education and media literacy is:

<b>Key principles:</b>	The Government vision is of education and skills providers making effective and innovative use of technology to transform learning, making it more flexible, accessible and responsive to the needs of employers and individuals.
------------------------	---

The Government is taking forward the actions detailed below:

Ref	Action	Lead(s)	Timeframe
1	Support, guidance and practical ideas for parents and carers on using technology for learning at home. Applies particularly to disadvantaged and hard-to-reach families. Research is planned to explore new ways of reaching and supporting them.	Becta	Ongoing
2	Next Generation Learning campaign to ensure that everyone understands the positive impact that technology can have on learning, will include, for example, information for hard-to-reach groups.	Becta	2008–11
3	Desk review into the potential for interactive digital television and games to offer access to opportunities for learning.	Becta and Futurelab	March 2009
4	Proposals for future policy on informal adult learning following the 2008 consultation, including the potential of technology to support such learning.	DIUS	Autumn 2008



# Digital infrastructure and markets

There are a number of areas of enterprise policy and initiatives that can help to progress digital inclusion. These include the gaming industry, assisted living technology, smart metering and broadband policy. Each of these are looked at briefly below.

## 'Serious games' and social media

An estimated 59 per cent of the UK's 6–65 year olds (26.5 million people) play electronic games, with 21.6 million playing at least once a week. There is significant projected growth in both the online and mobile markets. Video games are potentially a significant channel for engaging large numbers of people in the UK, and particularly younger people – some of whom (such as NEETs) are particularly hard to engage in more traditional ways. This fact is being increasingly appreciated by social policy practitioners, evidenced by a rise in the applications of gaming for social policy purposes. Applications are emerging across many sectors, for example:

- Health
  - Fizees,<sup>11</sup> a digital pet which young people must keep healthy and grow by themselves acting in physically healthy ways.
- Safety and community cohesion
  - *Soul Control*<sup>12</sup>, a game created by young people for young people as part of the RollingSound youth project, warns about dangers of knife crime.
  - *Beat the Dealer*, a game developed by Brook with a strong anti-drugs message.
- Community engagement
  - Sandwell council has supported young people on an estate to design a community centre in virtual space, which was then used as a consultation tool with residents.
- Engaging NEETs
  - LearnPlay Foundation's 'Games to Grow' project,<sup>13</sup> which uses video-game technologies as a learning tool for engaging children and young people – particularly those at risk of social exclusion.
- Active aging
  - 'Wii and Tea'<sup>14</sup> is an example of a project that helps older people to benefit from games – particularly physical and mental games – using the Nintendo Wii.
- Education and skills development
  - Aqua Pacific<sup>15</sup> have created a range of educational games to help children learn business and other skills, eg *E-Trader*, *Car Wash Tycoon*, *Sim Chemist*, *Max Trax* (helps to learn maths) and *Business Tycoon*.

<sup>11</sup> [www.futurelab.org.uk/projects/fizees/details](http://www.futurelab.org.uk/projects/fizees/details)

<sup>12</sup> [www.rollingsound.co.uk/news/#3](http://www.rollingsound.co.uk/news/#3)

<sup>13</sup> [www.learnplayfoundation.com](http://www.learnplayfoundation.com)

<sup>14</sup> [www.learnplayfoundation.com](http://www.learnplayfoundation.com)

<sup>15</sup> [www.aqua-pacific.com/education.htm](http://www.aqua-pacific.com/education.htm)

- Dundee’s Eduteams<sup>16</sup> project has been looking at how games can support the curriculum in schools.

Virtual reality, alternative reality and alternative identity games have particularly useful social applications. There are other examples and there is clearly broader public sector interest in this area. Government policy around video games is largely focused on regulating and supporting the industry. In 2006 games generated £2 billion in retail sales in the UK. In 2007 £458m was invested in games creation in the UK and 22,000 people were employed in games development, publishing and retail. The UK games market is the largest in Europe and currently the fourth largest revenue generator in terms of games production in the world closely behind the US, Japan and Canada<sup>17</sup>. However there are concerns about maintaining competitiveness. Key government action in this area includes:

- **Giving voice to the industry:** the Communications and Content Industries Unit of the Department for Business Enterprise & Regulatory Reform (BERR) works to build relationships with major computer and video-games companies and their representative bodies. Together with UK Trade & Investment (UKTI), it published *Playing for Keeps, Challenges to sustaining a World Class Computer Games Sector* in 2007.
- **Creative Britain: New Talents for the New Economy:** a strategy document for the creative industries. Led by the Department for Culture, Media and Sport (DCMS) in partnership with BERR and DIUS, it documents 26 commitments that outline how the Government will take action to support the creative industries. The goal is for the creative industries in the UK to move from the margins to the mainstream of economic and policy thinking.
- **The Byron Review:** published in 2008, this focused on the risks to children’s safety and well-being of exposure to potentially harmful or inappropriate material in video games. Although the focus was on risks and the negative aspects of video games, the final report was very clear that there needs to be a shift in the debate – from a focus on harm and protection to empowering children to manage the risks themselves in order to reap the benefits. The report particularly acknowledges the potential benefits for children and young people from playing video games, which include new opportunities for social interaction, potential cognitive and educational gains and entertainment. The report highlights that the evidence of harm around games is as contested as the benefits, and more work is needed around evidence.

The emergence of ‘serious games’, or games with a social purpose, currently appears to owe itself more to enthusiastic and creative people within industry, academia, the third sector and local government – there is no broad policy from central government on exploring and exploiting gaming technologies for public policy purposes, although in its review of government use of social media published in late 2007 the Central Office of Information (COI) posited the need for government departments to take a more strategic approach towards using social and interactive media in their engagement of citizens. The key barriers to more social ‘serious gaming’ that are emerging appear to be as follows:

<sup>16</sup> [www.seriousgames.org.uk/documents/research/EduCS.pdf](http://www.seriousgames.org.uk/documents/research/EduCS.pdf)

<sup>17</sup> [www.berr.gov.uk/sectors/games/gamesanalysis/page10178.html](http://www.berr.gov.uk/sectors/games/gamesanalysis/page10178.html)

- The evidence base for the impact of social games does not yet exist. There is a lot of anecdotal and some hard evidence – particularly the first order benefits of getting young people involved in creating the games, which are important as the end product itself. This points to real potential, but more work needs to be done if central and local government and the third sector are considering how to exploit this technology further.
- A good proportion of the computer games industry remains sceptical about the potential commercial viability of ‘serious games’, although the market for casual games that **could** be deemed to be ‘serious games’, eg Nintendo DS *Brain Training*<sup>TM</sup> (Nintendo DS) and *Wii Fit*<sup>TM</sup> (Nintendo Wii), has been very strong.
- There is currently limited opportunity for policy makers, practitioners and the games industry to come together to explore the opportunities, although BERR meets informally with other government departments and public sector organisations from time to time to exchange knowledge about business developments involving the commissioning of ‘serious games’ by government. BERR and UKTI have also staged networking events on ‘serious games,’ with government partners involving industry to explore further business opportunities. There are other models for support, such as the Serious Games Institute<sup>18</sup> and the electronic service delivery team’s innovation showcase that could be built upon for this.<sup>19</sup>
- While the talent base in the UK for the games industry remains attractive to investors, the industry is concerned that other countries have more favourable environments – some countries offer tax breaks, and Singapore has set up a fund for industry to develop games across key policy areas.

<b>Key principles</b>	<p><b>Citizen and community empowerment:</b> Assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills</p> <p>Government departments will take a strategic approach towards using social and interactive media in their engagement of citizens.</p>
-----------------------	--

Actions that the Government will take forward in this area are detailed below.

Ref	Action	Lead(s)	Timeframe
1	‘Serious games’ conference to bring industry together with potential and existing government commissioners of ‘serious games’.	BERR	Autumn 2008
2	Evaluation of the benefits of game-based learning in educational environments.	DCMS	2009
3	Key ‘serious games’ to be invited to showcase their work in the Government’s new innovation showcase.	E-Delivery Team and the Cabinet Office	2009

<sup>18</sup> [www.seriousgamesinstitute.org.uk/](http://www.seriousgamesinstitute.org.uk/)

<sup>19</sup> [gic.clicksandlinks.co.uk/opencms/opencms/](http://gic.clicksandlinks.co.uk/opencms/opencms/)

Ref	Action	Lead(s)	Timeframe
4	The Government will encourage employers to create up to 5,000 creative industry apprenticeships by 2013.	DCMS	2009

## Smart metering

There are various definitions of smart metering, but essentially a smart meter accurately records energy consumption on an interval basis, and allows two-way communication of data between the meter and the energy supplier and provision of energy data to the consumer within the home. Accurate and potentially highly detailed data on energy usage can therefore be provided to the supplier, the customer and other relevant parties.

Smart metering is already being used by some business customers – particularly by larger energy consumers. However, smart meters could potentially bring a wide range of benefits to **all** consumers and suppliers and to the energy market, these include the following:

- **Environment:** smart meters can provide better information about energy consumption, thereby enabling consumers to reduce their energy use and carbon emissions.
- **Quality and range of service:** smart meters ensure entirely accurate billing, ease transfer of supply and can be a platform for innovative tariffs, including time-of-day tariffs.
- **Network management:** smart meters could provide network operators with improved ability to manage the network.
- **Demand management:** depending on functionality, smart meters could open up possibilities for dynamic demand management. For example smart meters can pulse freezers off when kettles are switched on to reduce peak demand from a household.
- **Fuel poverty:** smart meters could help suppliers to target help with energy efficiency and other measures, and help the customer better to understand their energy use. They may also enable suppliers to offer a wider range of tariffs, including the possibility of targeted “social” tariffs. For those fuel poor customers who use prepayment meters, the cost of these meters should fall.
- **Safety of vulnerable consumers:** there is also the potential for wider social benefits from smart metering. For instance, as there will be no need for meter readers to visit homes, the elderly and other vulnerable consumers will not expect any meter readers to visit, thereby eliminating the scope for ‘bogus’ meter-read callers. Smart meters might also offer the possibility of ancillary services, such as remote monitoring of vulnerable householders.

The Government is positive about these potential benefits, but it needs to have a full and clear assessment of all of the costs and benefits of smart metering before taking decisions. To date, the Government has announced that advanced metering will be rolled out to medium-to-large businesses from January 2009, as a clear economic case exists for that sector.

An initial economic impact assessment also suggested a positive business case for smart metering for smaller businesses, but more work is needed to test this. The Government is completing the consultation process currently for a full roll-out to all domestic customers (the closing date for comments was 17 October 2008).

Recent economic analysis did not show a positive business case. However, fully quantifying expected benefits and estimating future costs on a project of this scale carries a high degree of uncertainty. The Government is therefore undertaking further work with stakeholders to ensure that it has the best possible assessment of costs, benefits and other issues before taking a decision on roll-out, which it aims to do later this year.

Four major energy suppliers are currently leading trials, which are examining how consumers respond to better information on their energy consumption from smart meters and other interventions (such as additional billing information). The project is funded by £10 million from the Government, which is matched by equivalent funding from the suppliers. The results should provide detailed information on changes in energy consumption, but it is likely that there will be other, wider learning about smart metering.

Although smart meters would provide another means of communication with the home, it is difficult to assess at this stage whether this will promote digital inclusion more widely. This is mainly because smart meters will require the transmission of only limited data (meter reads and updates) and therefore are unlikely to justify significant new broadband connectivity.

<b>Key principle</b>	In taking decisions regarding smart metering, the Government will take account of the digital inclusion agenda.
----------------------	---

Actions the Government will take forward in this area are detailed below.

Ref	Action	Lead(s)	Timeframe
1	Through the current Energy Demand Research Project (smart meter trials), improve understanding of the potential for smart metering to benefit the fuel poor.	BERR and Defra	2010
2	Use stakeholder events for energy suppliers to discuss smart metering with communications companies (Ofgem and Ofcom to also attend) and consider a further event to bring together interested parties for partnership opportunities.	BERR	Regular stakeholder events through 2008–09

## Broadband

Broadband is a technology that enables both businesses and the public to access a wide variety of new ICT-based services. The UK has one of the most extensive broadband markets in the world, with over 99 per cent of households able to access broadband and many also having a choice of technologies and suppliers. Around 59 per cent of households now have a broadband connection, up from around 5 per cent in 2002. Based on this foundation, the policy focus has now very much shifted to how and when next generation access (NGA) to broadband can be delivered in the UK.

NGA has the potential to deliver much higher upload and download speeds and improved qualities of service. This will improve the delivery of existing applications and services. It will also enable innovative new services to be delivered, generating economic and social benefits to the UK.

Government policy is to ensure a strong, competitive, market-led approach to NGA roll-out. In September 2008 Francesco Caio produced a final report for BERR and HM Treasury following his review of the barriers to roll-out of next generation broadband.<sup>20</sup> The report concluded that while there was no need for immediate major government intervention in the short term to accommodate traffic growth, in the next 5 to 10 years NGA would become a critical infrastructure. Furthermore, Government should actively monitor NGA roll-out in the UK and, with Ofcom, take a leadership role on NGA deployment, supported where necessary by action to remove obstacles and facilitate the development of a competitive NGA infrastructure in the UK. The report further concluded that this did not translate into subsidies or structural changes in regulation but rather a set of initiatives that could support and inform the activity of regulators and industry players in their journey to NGA.

As the Caio report noted, there are strong indications that the market is starting to deliver investment in NGA and little evidence that, in the short term, UK consumers will be disadvantaged by a lack of an extensive NGA network.

NGA roll-out is clearly in its infancy in the UK, and a debate around a digital divide would appear premature. However, pure private sector investment models are more complex in rural areas and deprived areas – where investment costs to roll out the infrastructure may be higher than in urban areas and where the market may not be able to provide a return over the required period. Some areas are poorly served today by the current generation of broadband, where it may either be available only at low speeds, or not at all. Furthermore, the benefits derived from the ongoing roll-out of ADSL2+ technologies to the existing copper network diminish as the distance between the premise and the telephone exchange increases. An estimated 50 per cent of households will benefit from ADSL2+ speeds of between 8mbps and 24Mbps. However, 50 per cent will not benefit from speeds above current generation ADSL, so the differences in access speeds are set to increase in the short term. Limitations and differences in infrastructure can translate to differences in the choice and quality of services that can be accessed via the infrastructure, and may also affect the potential for efficiency gains that will enable improvements in the levels of service provision. It would be inequality in public service delivery that would be of greatest concern to government in the context of broadband supply.

<sup>20</sup> [www.berr.gov.uk/files/file47788.pdf](http://www.berr.gov.uk/files/file47788.pdf)

It must be said that there is no compelling evidence as yet that people are missing out on essential and universal public services as a result of infrastructure differences in communities. However, we do need to analyse the potential risks for communities around emerging high-speed services and applications to evaluate whether the UK – or parts of the UK – are at a disadvantage. There are some excellent examples of local community-based solutions around broadband both in the UK and internationally, which could help local communities to address disadvantage:

- **Switch on Shropshire:**<sup>21</sup> a three-year project to provide broadband access, computers and other hardware to communities and businesses at local venues in rural Shropshire. These venues are known as ‘broadplaces’. Venues have included village halls, community centres, post offices, and even a local pub.
- **Nynet:**<sup>22</sup> one of Europe’s largest public sector-led, open access broadband infrastructure initiatives to overcome the issue of rural/coastal disadvantage in terms of broadband and connectivity. North Yorkshire County Council initially set the project up to provide higher-quality, faster access broadband public sector, schools, universities etc, but the extra capacity of this network has now been extended to internet service providers, so that they can provide cheaper and faster service.
- **Great Asby Broadband:**<sup>23</sup> was set up in 2005 to secure broadband access for households and businesses because neither cable nor ADSL were available in the village. The alternative comprised a fixed leased line to local village school with bandwidth of up to 10Mbps and a community wireless network of linked nodes situated around the village using a suitable wireless device. Most households now get a connection with bandwidth of around 1Mbps, although performance is variable due to changing atmospheric and other conditions.

Action at a local level by local authority partnerships and communities clearly has an important contribution to make both in improving current generation access and helping to deliver next generation access. Defra and Communities and Local Government will therefore conduct a risk analysis and determine what can be done at a local level to empower communities to tackle these risks.

The *Digital Britain Report* to be published in spring 2009 will add further actions for government and industry to support for the development of the UK’s digital economy.<sup>24</sup>

<sup>21</sup> [www.switchonshropshire.org.uk](http://www.switchonshropshire.org.uk)

<sup>22</sup> [www.nynet.co.uk](http://www.nynet.co.uk)

<sup>23</sup> [www.greatasbybroadband.org.uk](http://www.greatasbybroadband.org.uk)

<sup>24</sup> [www.culture.gov.uk/reference-library/media\\_releases/5548.aspx](http://www.culture.gov.uk/reference-library/media_releases/5548.aspx)

The key digital inclusion principles related to broadband are detailed below:

<b>Key principles</b>	<p><b>Service effectiveness:</b> promote, across all sectors, more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p><b>Sustainable development:</b> monitor and provide evidence for the risks and opportunities of emerging digital technology for excluded groups and communities, including minimising the environmental impact of these groups</p> <p><b>Infrastructure:</b> where government is rolling out, supporting the roll-out or regulating new infrastructure, it will consider the opportunities to extend or promote digital inclusion.</p>
-----------------------	--

Actions the government will take forward in this area are as follows:

Ref	Action	Lead(s)	Timeframe
1	Analysis of the potential risks for communities or places associated with emerging high-speed services and applications to evaluate whether the UK, or parts of the UK, will be at a disadvantage.	Communities and Local Government and Defra	Feb 2009
2	Scope out the establishment of NGA action learning initiatives in designated remote rural and deprived urban areas.	DC10	2008



# Transformational government

The Government's Transformational Government strategy sets out a six-year improvement plan for public services, centred around the key themes of customer-centric services, shared services and IT professionalism. The vision is that all citizens can benefit from the transformation that ICT can enable in our public services – including greater personalisation, responsiveness and availability. Many benefits can be delivered through back-office improvements and delivered to customers regardless of whether they use digital channels, such as the Internet, or whether they use more traditional mediated channels such as the telephone or meeting face to face. For example, the Pension Service is in the process of implementing a major transformation programme. It has replaced and simplified processes, and as a result each transformed pension centre is now dealing with its customers' state pension claims in one 20-minute telephone call – rather than talking to customers for at least two hours and on several different occasions.

Service transformation stands to benefit the most vulnerable in society who need and use services the most frequently. However, these groups – particularly those suffering multiple disadvantages such as care leavers, offenders, adults with learning disabilities and those with mental health problems – have particularly complex needs, which often require more difficult, more sensitive and more costly interventions such as multi-agency, face-to-face services and outreach work. ICT has an important role to play here in supporting more efficient joint services through appropriate sharing of data to help frontline practitioners to deliver a better service to those with complex needs.

Also, as technology is increasingly used in innovative ways as a delivery channel by the public sector, there risks a service gap opening up between those who have a greater choice of ways in which they can use public services, and those who do not.[DN I don't think this is true of the public sector which is very conscious of the need to serve all citizens] To avoid this risk, Transformational Government places a strong focus on designing services around the needs of the user. This means offering a choice of ways to access services wherever practical. It means using some of the efficiency savings generated from joint working, shared services and modern, online services for the many citizens who want simple, 24/7, IT-enabled services to ensure that there are suitable alternatives, including joined-up face-to-face and telephone services and partnerships delivered in partnership with others including the third sector.

So more needs to be done and more is being done. Service transformation was placed at the heart of the Comprehensive Spending Review and now underpins the whole of the government's public service agreement (PSA) framework. The Service Transformation Agreement emphasises that transformation is aimed at delivering both improved outcomes for the citizen and greater efficiency. With many PSAs focused on improving the lives and life chances of vulnerable groups and disadvantaged communities, including the government's social exclusion PSA target, the links between transformation and vulnerable groups who could benefit have been considerably strengthened.

There are a number of actions that can be taken forward to build on the Service Transformation Agreement and to actively build capacity and capability to deliver improved public services for the most vulnerable. These might include the following: [DN CO cannot sign up to these actions without further consideration]

- The service transformation programme will consider expanding its remit to new projects or areas of work. Options to be considered may include service transformation for particular vulnerable groups.
- The contact council will work with the new cross-government Digital Inclusion co-ordination team in the context of the Digital Inclusion Action Plan, and other relevant organisations on how to advise departments and agencies in developing their channel strategies. Guidance will be drawn up and published in time for departments and agencies to develop their strategies by March 2010.
- The Delivery Council through the Contact Council will develop principles by March 2010 for mediated access and trusted roles appropriate for different situations and set security and identification standards to be put in place by delivery services.
- We will explore how we can raise awareness of digital exclusion issues and build capability for dealing with them among the government IT profession.
- The Local Government Chief Information Officer Council will explore the developing role of local government chief information officers in relation to digital inclusion – particularly around how corporate IT strategy and services can and should be more outward facing in support of sustainable community strategies.
- The Government Equalities Office will work with the Cabinet Office and the digital equality team to explore a range of public, private and third sector services, and the service qualities across each channel, to identify where ICT can most support improved services and reduce social exclusion. This research could be a foundation for future monitoring of any digital equalities gap opening up in service delivery.

The key digital inclusion principles underpinning service transformation are detailed below:

<b>Key principles:</b>	<p>Wherever possible, services should offer choice as to how citizens access services, taking account of the needs of the user.</p> <p>Government should work with industry and the third sector to ensure that all – including the most disadvantaged people and communities – benefit from the huge potential of ICT-enabled public services transformation.</p>
------------------------	--

Actions the Government will take forward around digital inclusion and Transformational Government are as follows:

Ref	Action	Lead	Timeframe
1	Guidance of channel shift strategies will be drawn up and published in time for departments and agencies to develop their strategies by March 2010.	Contact Council	March 2010
2	Raise awareness of digital inclusion issues among the government IT profession.	Government IT profession	2009
3	Explore the role of local government chief information officers in relation to digital inclusion.	Local Government Chief Information Officer Council	2008/09
4	Measure and monitor service delivery inequalities starting with a baseline assessment in 2008.	Government Equalities Office	2008

# Information-sharing and data protection

## Data protection

While there is general recognition across the public sector of the potential to deliver more efficient and effective public services through better use and sharing of information, there is a need to ensure that any interference in an individual's right to private life is justified, necessary and proportionate. Government must also ensure that any personal data is properly protected and kept secure. The public must have faith in the Government's ability to keep their personal data safe.

The Data Sharing Review, conducted by Dr Mark Walport, Director of the Wellcome Trust and Richard Thomas, Information Commissioner, carried out, among others, a review into the way personal data is used and protected in the public and private sectors. The review reported on 11 July 2008 and made a number of recommendations on safeguarding and protecting personal information held in publicly available sources.

On 16 July Government published a public consultation, which builds on the recommendations stemming from the Data Sharing Review. The Government is currently preparing its response to the review, as well as to the consultation, both of which are due to be published very shortly.

## Central government policy on information-sharing

The use and management of information in public sector delivery is a cross-cutting issue, which is core to the success of many government agendas including partnership-working, personalised service delivery and social inclusion. Vulnerable groups, who are most at risk of falling through gaps in service delivery, stand to benefit significantly from partner organisations sharing information in order to join up service delivery. Technology is a significant enabler of information sharing; however there are strong cultural and perceived legal barriers to information-sharing that are preventing the application of technology being successful. These barriers inhibit the delivery of more personalised public services and the delivery of associated benefits to service users and deliverers alike. Examples of barriers include the following:

- Confused or poorly delivered statutory powers (vires), which in practice lead to a cultural aversion to sharing information. This is particularly evident in the very different behaviour exhibited by local authorities: some share personal information; some do not.
- Confusion regarding the correct application of the Data Protection Act.
- A lack of clarity and formal arrangements for information-sharing.
- Difficulties in sharing and comparing data across geographical and other institutional boundaries.
- Lack of knowledge of or confidence in data standards, which facilitate sharing (despite the standards being part of the Government's interoperability requirements).
- Incompatible IT systems – particularly systems which pre-date the Internet.

Success factors for effective and appropriate information-sharing include:

- **Leadership:** where responsibility is taken at a senior level for developing an information-sharing, strategy and ensuring that it is implemented appropriately and securely.
- **Performance management:** where the necessary checks, protocols and systems are in place to ensure that information is shared appropriately and securely.
- **Capacity:** where workers' caseloads allow them sufficient time to engage in information-sharing, for example attending meetings and inputting data.
- **Guidance:** where all those responsible for information-sharing have access to clear, accurate guidance that empowers them to make robust, consistent decisions on information sharing and ensures they know when explicit consent for information-sharing is required from customers.
- **Skills:** where all those responsible for information-sharing receive adequate training and support that equips them with the skills and confidence to make robust, consistent decisions on information-sharing.
- **Communication:** informing members of the public about how their information is issued and how information-sharing can deliver improved services. If it is thought that customers would be surprised to learn that their information is being shared in a particular way then they have not been informed effectively.

Government information-sharing policy is focusing on addressing the barriers and on supporting the success factors. To date, much work has been done by government to raise awareness of the importance of appropriate and secure information-sharing and to increase understanding, as follows:

- The Cabinet Office published a report entitled *Privacy and data-sharing: The way forward for public services*. The aim was to improve public services through better use of personal data and to secure public trust in the handling of personal data, by safeguarding personal privacy.
- Publication of *Public Sector Data Sharing Guidance on the Law*.<sup>25</sup>
- In 2005 a Cabinet committee was established to develop an information-sharing vision and a coherent cross-government information-sharing strategy.
- In 2006 the Government published the *Information sharing vision statement*, which set out a high-level ambition for increased data-sharing between public sector organisations, and service providers providing a clear focus for the development of citizen-centred services.
- In 2007 the Government commissioned Ed Mayo, Chief Executive of the National Consumer Council and Tom Steinberg Director of mySociety to take forward a review on 'the power of information'. This review set out a number of recommendations covering: improving access to public sector information; protecting the public interest; and examining new ways to share non-personal data.
- In 2008 the Prime Minister commissioned Richard Thomas, the Information Commissioner, and Dr Mark Walport, Director of the Wellcome Trust, to examine among other issues, the tensions between privacy arguments and how data-sharing policy should be developed in a way that ensures proper transparency, scrutiny and accountability.

<sup>25</sup> [www.foi.gov.uk/sharing/toolkit/lawguide.pdf](http://www.foi.gov.uk/sharing/toolkit/lawguide.pdf)

## Departmental initiatives

Government departments have been taking forward initiatives relating to information-sharing to facilitate better services – often to those who need them most, such as socially excluded groups. Many of these schemes have an impact across sectors and are implemented by local authorities and their partners.

### *Department for Children, Schools and Families*

Initiatives being taken forward by DCSF include the following:

- **ContactPoint:** a tool to enable children's service practitioners to identify and contact one another easily and quickly so they can share relevant information about children who need services. It will list all children who are ordinarily resident in England.
- **Common Assessment Framework (CAF):** aims to assess needs at an early stage and decide what action needs to be taken. CAF is designed to enable practitioners across all agencies, after training, to follow the same process and achieve more consistent assessment that can be shared and understood by other agencies. eCAF is being developed to support the storing and retrieval of CAF information electronically.
- **Information sharing guidance, 2006:** to support the delivery of the Every Child Matters agenda, DCSF developed guidance for practitioners on information-sharing. This sets out key points on information-sharing and includes worked-up examples and legal guidance. It has recently been updated and a revised version will be published in 2008.

### *Department for Work and Pensions*

Initiatives being taken forward by the Department for Work and Pensions (DWP) include the following:

- **Data Sharing Strategy Unit and a data-sharing protocol:** the protocol sets out the conditions under which data from DWP can be shared with an external partner.
- **Tell Us Once:** the concept behind Tell Us Once is that when citizens want to report changes in circumstances relating to life events such as birth of a child, change of address or the death of close relative, they only have to report it once.
- **Freshstart:** a Freshstart appointment guarantees a prisoner a new claims interview appointment at their local Jobcentre Plus office as soon as possible following release. This process aims to connect ex-prisoners with financial and employment support more quickly. This is an example of data-sharing with consent from individuals. DWP have data on approximately 40,000 people leaving prison and can track their progress through benefits and work. However, the original method used for exchanging this data did not meet the new security standards, and the scheme has been temporarily suspended pending discussions about improved data-handling.

### *Department of Health*

Initiatives being taken forward by the Department of Health (DH) include the following:

- **Information Sharing and Mental Health:** guidance for the exchange of information between health services and statutory and non-statutory organisations, as well as individuals. It sets out when, why and with whom information can be shared. Sections cover

legislation; some key guiding principles around when and what to share (eg issues of consent); health services and confidentiality; and who is likely to need the information, such as service users, carers, voluntary sector, and colleagues. The guidance highlights the importance of senior managerial support and buy-in.

- **No Secrets, 2000:** DH is reviewing the *No Secrets* guidance. This sets out a requirement for providers of sheltered and supported housing, housing and education departments, health, police and social services to develop multi-agency working in relation to protecting people who are vulnerable from harm and abuse. The review of this guidance is looking at how to better deliver on safeguarding vulnerable adults and how all the relevant agencies work together.
- **Commissioning framework for health and well-being, 2007:** this document identifies eight steps to effective commissioning, of which the sharing and more effective use of information is one. The document sets out justification for more effective information-sharing, clarification of legal requirements and the joining up of IT systems at the frontline level (to support practitioners) and at community level (to support joint strategic needs assessments).
- **Common Assessment Framework for Adults:** this builds on the work of the Single Assessment Process for Older People, the Care Programme Approach and person-centred planning by developing a framework to better support integrated working across health and social care services. Key among the groups that will benefit from this are people with mental health needs and learning disabilities.

### *Communities and Local Government*

Initiatives being taken forward by Communities and Local Government include the following:

- **Government guidance on information-sharing (working title):** Communities and Local Government and DCSF are producing joint information-sharing guidance for children's and adults' services. The guidance is aimed at frontline workers to support their decision-making on when and how they should share information, on a case-by-case basis. The guidance is due for publication in Autumn 2008 and will be part of a package of information. This will include main information-sharing guidance, case studies on information-sharing, and a pocket guide for practitioners.
- **Research into the cost benefits of information-sharing:** Communities and Local Government has published research by the Office of Public Management to look at the cost-benefits of information sharing. This research will set out the cost benefits to local authorities and other partners sharing information within Local Strategic Partnerships. The target audience for the research is middle managers with responsibility for service design, meeting local needs and objectives, and partnership working.
- **Joint working between housing and children's services:** this guidance, produced by Communities and Local Government and DCSF, covers joint working and information-sharing.
- **Access to housing: Information sharing protocol, 2007:** this document sets out a national standard protocol on sharing information about applicants for re-housing. It has been produced following consultation with Communities and Local Government, DH, the Housing Corporation, the Local Government Association, the National Housing Federation, local authorities and housing associations.<sup>26</sup>

<sup>26</sup> [www.housingcorp.org.uk](http://www.housingcorp.org.uk)

## Ministry of Justice

Initiatives taken forward by MoJ include the following:

- **Offender Management Act, 2007:** the Act contains provisions that may facilitate linking data on reoffending with data on employment, claiming of benefits, health and skills training.
- **Multi-Agency Public Protection Arrangements (MAPPA):** MAPPA support the assessment and management of the most serious sexual and violent offenders. They bring together the police, probation and prison services into what is known as the MAPPA Responsible Authority. Other agencies are under a duty to co-operate, including social care, health, housing and education services. MAPPA promote information-sharing between all relevant agencies, resulting in more effective supervision and better public protection.
- **Managing Drug Misusers under Probation Supervision November, 2007:** guidance for Probation, Criminal Justice Integrated Teams (CJIT) and Counselling, Assessment, Referral, Advice and Throughcare Services (CARATS). This describes the respective responsibilities of agencies regarding the sharing of information; clarifies how drug-misusing offenders subject to 'statutory supervision' (ie offenders on community orders or post-custodial license) should be managed by probation offender managers, CARAT workers and CJIT staff; and provides a checklist to assist in the preparation of local protocols.<sup>27</sup>
- **Crime and Disorder Reduction Partnerships (CDRPs):** the Crime and Disorder Act 1988 facilitates the sharing of information to prevent crime. The Crime and Disorder (Prescribed Information) Regulations 2007 set out the depersonalised information, eg crime records, which relevant authorities (including the police, probation boards, local authorities and primary care trusts) are under a duty to disclose to each other in electronic form on a quarterly basis. The regulations form part of a programme of reforms, led by the Home Office, to improve the effectiveness of CDRPs.

Actions the government will take forward include the following:

Ref	Action	Lead(s)	Timeframe
1	Research to look at the cost benefits of information sharing.	Communities and Local Government and the Office of Public Management	2008
2	Information-sharing guidance for children and adults services.	Communities and Local Government, DCSF	2008

<sup>27</sup> www.drugs.homeoffice.gov.uk



# Housing and planning

Social housing plays an essential role in supporting lower-income, socially excluded people and deprived communities. The strong links between social exclusion, income and digital exclusion indicate that there is potential to consider further how social housing policy can support digital inclusion. Furthermore, planning policy, guidelines and standards offer opportunities for 'designing out' digital exclusion from future housing.

Housing and planning policy could play an important part in helping to roll out next generation access (NGA) broadband, especially on the back of the housing growth agenda. In this vein, Francesco Caio's review of barriers to roll-out of NGA has recommended that the Government should drive forward an agreed specification generated by the construction and communications sectors to raise awareness of NGA in the minds of the construction industry and help NGA connectivity begin to emerge as a valuation criterion for homes. As noted above, the Government is still considering its response to this review.

There are at least 4.8 million households in the social housing sector and there is a clear audience overlap between digital exclusion and social housing. For example, 70 per cent of social tenants have incomes within the poorest two-fifths of the national income distribution. Income is a strong driver of digital inclusion with those on the lowest incomes less than half as likely to use the Internet as those on the highest incomes.<sup>28</sup> There are emerging examples of digital inclusion initiatives being led or strongly supported by registered social landlords (RSLs). These initiatives have the potential to benefit both residents and RSLs.

There are limits to what government can do in the housing sector without overly increasing the burdens on planners, developers and landlords, which could in turn negatively impact the housing growth agenda. However, addressing digital inclusion could be in the interests of developers and landlords alike,<sup>29</sup> and this issue is clearly worth exploring in more detail. Communities and Local Government will review the opportunities. The key digital inclusion principle underpinning housing policy is as follows:

<b>Key principle</b>	The Government will work with key stakeholders – planners, RSLs and the construction industry – to work towards 'designing out' digital exclusion from social housing, special accommodation and new builds.
----------------------	--

<sup>28</sup> Dutton, W.H. and Helsper, E. (2007) *Oxford Internet Survey 2007 Report: The Internet in Britain*. Oxford Internet Institute.

<sup>29</sup> For example, tenant management costs may be reduced if tenants have greater access to technology and the ability to use electronic services such as rent payments, requests repairs etc.

Actions the Government will take forward around digital inclusion, housing and planning are listed below:

Ref	Action	Lead	Timeframe
1	Investigation of what is and is not possible to help to deliver digital inclusion through housing and planning policy.	Communities and Local Government	Spring 2009

# Transport

Following the Eddington Transport Study and the Stern Review of the economics of climate change, the Department for Transport (DfT) set out five long-term goals for transport in the discussion document *Towards a Sustainable Transport System*.<sup>30</sup>

- reducing transport's emissions of CO<sub>2</sub> and other greenhouse gases, with the desired outcome of avoiding dangerous climate change.
- maximising the overall competitiveness and productivity of the national economy, so as to achieve a sustained high level of GDP growth.
- promoting greater equality of transport opportunity for all citizens, with the desired outcome of achieving a fairer society.
- contributing to better health and longer life expectancy by reducing the risk of death, injury or illness arising from transport, and promoting travel modes that are beneficial to health.
- improving the quality of life of transport users and non-transport users, including through a healthy natural environment, with the desired outcome of improved well-being for all.

In contributing to meeting these goals, particularly in terms of ensuring greater equality of transport opportunity for all citizens, DfT is deploying technology in some innovative ways:

- It has established an online 'citizens panel' to help with transport strategy and planning.
- The Transport Direct<sup>31</sup> website provides a journey planning service which helps people find the quickest, cheapest or lowest-CO<sub>2</sub> option for their trip. The service is also available via digital TV set top boxes for those with the appropriate equipment and service provider. The challenge now is to consider extending the reach of Transport Direct, either directly or through enabling third party access to back office processing, so that all can benefit from it.
- Real-time public transport timetables across devices.
- Smartcards are available for cross-boundary travel.
- New build and smart-homes which have access to high-speed broadband to enable better home-working, so contributing to a reduction in car journeys.

The key digital inclusion principles that relate to transport are as follows:

<b>Key principles:</b>	<p><b>Service effectiveness:</b> Promote, across all sectors, the more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p><b>Supporting the disadvantaged:</b> The Government will work with industry and the third sector to ensure that all, including the most disadvantaged people and communities, benefit from the huge potential of ICT-enabled public service transformation.</p>
------------------------	---

<sup>30</sup> DfT (2007) – see [www.dft.gov.uk/about/strategy/transportstrategy/pdfsustaintranssystem.pdf](http://www.dft.gov.uk/about/strategy/transportstrategy/pdfsustaintranssystem.pdf)

<sup>31</sup> [www.transportdirect.info/web2/Default.aspx?repeatingloop=Y](http://www.transportdirect.info/web2/Default.aspx?repeatingloop=Y)

The action the Government will take forward in this area is as follows:

Ref	Action Description	Lead	Timeframe
1	Extending the reach of Transport Direct, either directly, or by enabling third party access to back-office processing, so that all can benefit from it.	DfT	December 2010

# Health

## NHS Choices and NHS Connecting For Health

### The challenges facing the NHS in the 21st century

The *NHS Next Stage Review* highlights some of the key challenges facing the NHS in the 21st century as:

- **an ageing population:** by 2031, the number of over-75-year-olds in the British population will have increased from 4.7 million to 8.2 million.<sup>32</sup> This older age group are major users of NHS services
- **long-term conditions:** while just 17 per cent of under-40s have a long-term condition, 60 per cent of the 65 and over age group suffer from one or more long-term conditions<sup>33</sup>
- **expectations of a new generation:** the expectations of those born in the last three decades have changed. They want to access information when, where and in whatever format they wish. They expect information to be intuitive and mobile.

There are currently 16 million people in the UK (27 per cent of the population) who have never used the internet. If we include digital TV and mobile ownership, the figure drops to six per cent of the population. Of the remaining six per cent; three per cent are ABs, 11 per cent are retired or unemployed, 24 per cent are visually impaired, 18 per cent have a hearing impairment and 16 per cent have mobility impairment.<sup>34</sup>

By 2012, 74 per cent of UK homes are expected to have broadband internet access, transforming how people will seek and use information.<sup>35</sup> This will leave a high percentage of the population without high-speed internet access.

There is some evidence to suggest links between poor health and digital exclusion, for example:

- The 2007 Oxford Internet Survey<sup>36</sup> indicates that people with a long-term health condition are half as likely to use the internet as those without (36 per cent compared to 77 per cent).
- The 2007 Scottish Household survey<sup>37</sup> found that in Scotland, 63 per cent of people without a long-term condition have home access to the internet compared to 35 per cent with a long-term condition.

<sup>32</sup> *The NHS Next Stage Review Final Report – High Quality Health Care for All* (Office for National Statistics: Population Projections 2007)

<sup>33</sup> *The NHS Next Stage Review Final Report – High Quality Health Care for All* (Department of Health (2008): *Raising the Profile of Long-Term Conditions*)

<sup>34</sup> OFCOM: Media Literacy report 2008

<sup>35</sup> *The NHS Next Stage Review Final Report – High Quality Health Care for All* (UK Broadband Overview 2008)

<sup>36</sup> [www.oii.ox.ac.uk](http://www.oii.ox.ac.uk)

<sup>37</sup> [www.scotland.gov.uk/publications/2007/10/290993311/0](http://www.scotland.gov.uk/publications/2007/10/290993311/0)

## Current initiatives

Information technology can play an important role in meeting the 21st-century challenges for the NHS of achieving better health and well-being, and delivering high-quality, personalised services for all. NHS-wide initiatives that will impact on the digital divide are being delivered by two main organisations by the Department of Health through:

- NHS Choices, which provides health information for the public, supporting healthy living, access to services and information for choice.
- NHS Connecting for Health, which supports the NHS in providing better, safer care by delivering computer systems and services which improve the way patient information is stored and accessed.

In addition, there is a range of innovative services offered by local NHS organisations that are also impacting on digital access and inclusion.

NHS Choices aims to empower the citizen by using technology, helping to reduce health inequalities and enable people to navigate the system when and where they need it. NHS Choices is addressing the needs of the changing face of the UK population, and extending its reach to the harder-to-reach groups, thereby overcoming gaps in digital inclusion and bringing health information to those who need it most.

NHS Connecting for Health (NHS CFH) supports the NHS in providing better, safer care by delivering computer systems and services which improve the way patient information is stored and accessed. A key part of this is the NHS Care Records Service, which will improve accessibility to appropriate care, particularly for some hard to reach groups. This service is providing faster, safer diagnosis and treatment because vital information will be available to healthcare professionals, including in an emergency, out of hours or when the patient is away from home elsewhere in England.

Examples of initiatives below:

- NHS Choices video is syndicated to popular channels that appeal to younger audiences, such as YouTube, from its video library of over 200 lifestyle and health videos.
  - NHS Choices videos are being syndicated to 1300 GP surgeries and 300 schools via the Life Channel.
- NHS Connecting for Health is currently operating an early adopters pilot of the Summary Care Record, which provides essential medical information that will enable better and safer unscheduled care, particularly for people with long-term conditions and people who are not registered locally.
- NHS Connecting for Health runs the HealthSpace website, which offers patients the ability to record their own health details. HealthSpace offers patients in the early adopter pilots secure access to their Summary Care Record
- A mobile phone sexual health pilot in Humber resulted in a 10 per cent increase in young people's STD screenings.
- Train the Trainer initiative in Humber is training healthcare professionals, prison staff and community staff, such as librarians and children's day care staff to use NHS Choices to support their work.

- The NHS Choices website will be delivered through more than 300 UK online centres to reach those people without home internet access, and educate on web literacy skills and basic computer skills. This partnership will offer access to over 150,000 users who would otherwise not have access to the NHS Choices website.
- In the Partnership with Patients scheme, public libraries are supporting patients in using NHS Choices to compare hospitals and then make online bookings through Choose and Book
- NHS Choices Mobile – Find Your Nearest Service, allowing you to locate the nearest dentist, doctor or hospital to your location (the highest take up since 2007 of mobiles has been by the over 65 age group).
- Pilot activity with charities (such as Start Here) to investigate the use of simplified presentation and access digital services targeted at hard to reach audiences, such as offenders.
- A London-based NHS Choices radio pilot, with audience profile comprised of older people and younger audiences in deprived areas, is evaluating benefits of using this channel to deliver health information.
- NHS Connecting for Health is also supporting the adoption of telecare and telehealth services, having worked with NHS PASA to develop a national framework procurement agreement.
- NHS Connecting for Health is working with industry to develop standards for interoperability in telehealth, telecare and personal fitness services which will provide greater patient choice in the devices they use and the services they can access. This is expected to facilitate a range of products that can meet the specific abilities of some groups that would otherwise be excluded, and allow information they create to be shared electronically with their carers.
- Academic research has been commissioned by NHS Connecting for Health into the impact of digital access to health information and services to see who would be excluded and identify the additional support required to extend the benefits.

## Local initiatives

There are a number of locally funded initiatives that use communications technologies to give patients increased access to care, view their records remotely and to book facilities. These initiatives point to the potential benefits for using ICT to improve services while also highlighting lessons for supporting improved digital inclusion:

- In Kent, Newham and Cornwall the Whole Systems Demonstrator programme is researching the impact of new care models for long-term conditions and older people, involving the large-scale use of telehealth and telecare technology. NHS Connecting for Health is a partner in the programme.
- In Birmingham the OwnHealth programme, delivered in partnership with NHS Direct, puts patients with long-term conditions in regular telephone contact with care managers for coaching on a number of key areas that affect their health.
- PAERs (Patient Access Electronic Record System) offers patients access to view their records, primarily via kiosks in GP surgeries. Of the people registered to access their patient records, 75 per cent have looked at them. Patients with long-term conditions use the system more than others.<sup>38</sup>
- Some General Practice (GP) surgeries offer a range of services to patients via websites, DiTV and mobile phones for booking of appointments and the ordering of repeat prescriptions (60 per cent of UK surgeries have systems that could offer this facility).
- Obesity-busting text message campaigns can be used to target those patients with BMIs (body mass indices) who are classed as obese.
- Text messaging services are also used to deliver weather alerts to patients with chronic lung disease and asthma.
- The NHS Quit Smoking for Life Battle Bus has been touring the country. It uses photographic software to encourage behaviour change by showing participants what they would look like in the future if they continued to smoke, compared to how they will look if they stop immediately.
- Kiosks in a growing number of GP surgeries deliver check-in queue-busting services to UK patients.
- Hospitals and GP surgeries are evaluating the benefits of multilingual, information touch screen kiosks to overcome literacy, web literacy and web/computer access issues.

The key digital inclusion principle underpinning health is as follows:

### Key principle

Government should ensure that ICT-enabled service transformation in health is implemented in a way that reduces health inequalities by taking steps to include the most disadvantaged people and communities.

<sup>38</sup> British Journal of General Practice, June 2007



Actions the Government will take forward in this area are listed below:

Ref	Action	Lead(s)	Timeframe
1	Assessment of cost-effective models to deliver health information and services via digital TV, videos on demand and IPTV.	NHS Choices	October 2008
2	Develop plans for the national deployment of Summary Care Record.	NHS Connecting for Health	Ongoing
3	Provision of an evidence base for telecare and telehealth from the Whole Systems Demonstrator.	Department of Health (DH)	Ongoing

## Mental health

People who suffer severe mental health problems carry a high risk of dependence on long-term Incapacity Benefit and suffer social exclusion in the form of deprivation, social isolation and physical ill health. Although many want to work, less than a quarter actually do. People with severe mental health problems have the lowest employment rate of any of the main groups of disabled people. Mental health problems can also be exacerbated in rural areas where access to services is more difficult – but the need for those services can sometimes be greater; for example studies have found higher suicide rates in remote rural districts among 16-24 year olds than elsewhere.

Improving the population's mental health is a priority for Government. Mental health problems are recognised as a contributor to social exclusion and are included in the Government's social exclusion PSA target. There is a growing interest in, and recognition of, the role of technology in supporting people experiencing mental health problems and also their carers. Examples include:

- telecare technology, which can help people with problems such as dementia to live more safely in the community.
- online, email and SMS based cognitive behaviour therapy.
- interactive computer based support examples eg MoodGym and Living Life to the Full.
- assistive technology to support communication (eg ACE Centres)
- online communities such as DepressionNet.
- virtual reality games for those suffering post-traumatic stress disorder.

The National Institute for Health and Clinical Excellence has recommended that two computer programmes *Beat the Blues* and *FearFighter*, which offer computerised cognitive behaviour therapy, be offered as treatment for mild and moderate depression, panic and phobia. These represent self-service therapy as early intervention to prevent problems from becoming more severe.

On World Mental Health Day in 2007 health secretary Alan Johnson announced annual funding, rising to £173 million in the third year, to increase the psychological therapies services available through the NHS. The Improving Access to Psychological Therapies (IAPT) programme<sup>39</sup> aims to help primary care trusts (PCTs) implement National Institute for Health and Clinical Excellence (NICE) guidelines for people suffering from depression and anxiety disorders. At present, only a quarter of the six million people in the UK with these conditions are in treatment, with debilitating effects on society. The funding will allow 900,000 more people to access treatment, with half of them moving to recovery and 25,000 fewer on sick pay and benefits, by 2010/11.

The IAPT programme responds to service user's requests for more personalised services based around their individual needs. Technology has a role to play in supporting this particularly by bridging geographical barriers to accessing and delivering services.

There is research evidence on ICT access and use among those with mental health concerns.<sup>40</sup> In one study, where services were accessible, 21 per cent of people with mental health problems identified the internet as useful in overcoming isolation – nearly double the number identifying the telephone. The concept of delivering therapy remotely as a supplement to face-to-face is maturing, with many different aspects tried and tested:

- remote counselling and psychotherapy are increasingly available and acceptable via the telephone,
- there have been studies into the effectiveness of online counselling and the differences between face-to-face and online interaction are becoming well understood<sup>41</sup>
- the nuances between online and face-to-face treatment are sufficiently well known that there are now courses for mental health professionals that are available specifically around online therapy
- other services that are available include:
  - <http://www.psychologyonline.co.uk/>
  - <http://www.theexpertpatient.co.uk/>
- there are many good examples of support groups via the internet
- there are services in the public sector in other countries:
  - KidsLine provides online counselling for children in Australia
  - Anna Zorg in the Netherlands
- online confidential advice services are also available in the third sector (eg AskBrook is a secure online enquiry service for young people's to receive sexual health advice and support via the internet).

<sup>39</sup> [www.nhs.uk/iapt](http://www.nhs.uk/iapt)

<sup>40</sup> Citizens Online and National Centre for Social Research report for Communities and Local Government

<sup>41</sup> [www.fenichel.com/technical.shtml](http://www.fenichel.com/technical.shtml) <http://www.rider.edu/~suler/psyber/therapy.html#intro>  
[/www.chst.soton.ac.uk/nths/abv14344.htm](http://www.chst.soton.ac.uk/nths/abv14344.htm)

The concept of an e-clinic is being trialled by North Lincolnshire PCT and North Lincolnshire County Council in partnership with BT and the local strategic health authority and is under evaluation by Sheffield University. This will enable therapist and client to interact remotely and support flexible service delivery including the potential for 'drop-in' access to therapy.

The key digital inclusion principles underpinning mental health are:

<b>Key principle</b>	Government should work with industry and the third sector to ensure that all, including the most disadvantaged people and communities, benefit from the huge potential of ICT enabled public services transformation.
----------------------	---

Actions the government will take forward are:

Ref	Action Description	Lead	Timeframe
1	Evaluate the effectiveness of integrated internet therapy. Partnership: North Lincolnshire Council, BT, SHA.	North Lincolnshire Council	2010

## Integrated health and social care

Technology is underpinning a transformation<sup>42</sup> in the way that health and social care are being delivered, especially for the vulnerable, the elderly and those living with long term conditions. Assisted living telecare technology such as fall sensors, pendant alarms, gas detectors and bogus caller equipment is increasingly helping people live independently in their homes and improving the efficiency and effectiveness of health and social care. Housing services also play an important role in providing telecare infrastructure in local schemes and in promoting the use of telecare in extra care facilities.

The deployment of this technology benefits users, family, carers and in some cases frees up social care time. There is the potential for significant costs to be saved where alerts lead to prompt action. Government has recognised the potential benefits and invested significantly. The Preventative Technology Grant made available £80m to 150 councils with adult social care responsibilities and their partners over the period 2006-2008 and set an overall aim of 160,000 additional users to benefit. The 2008 figures indicate that this aim is on track to be met and that there are sufficient local resources to enable organisations to finalise business cases for future mainstreaming and making services sustainable.

In May 2008, the Department of Health announced the beginning of the £31 million Whole System Demonstrator Programme that will test the potential of innovative technologies like telecare and telehealth in supporting care for those with complex health and social care needs.

<sup>42</sup> Putting People First, [www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndguidance/DH\\_081118](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndguidance/DH_081118)

The programme is being rolled out across Kent, Cornwall and Newham where people with complex health and social care needs such as diabetes, heart and chest problems and the elderly and the frail will use the technology. Clients can also trigger requests for help should they fall and automated safety devices will be installed to ensure people are able to live at home for longer.

The programme aims to give people the support necessary to help them retain their independence in the community and greatly improve their quality of life by managing their conditions in their own homes. Benefits of the scheme are expected to include reduced emergency admissions, reduced use of the acute hospital sector and reduced dependence on care home settings. If successful, then savings generated by reduced admissions could potentially more than offset the cost of the initial investment in the technology.

In July 2008, the Department of Health commissioned the King's Fund together with the Care Services Improvement Partnership (CSIP Networks), to launch a new network to help expand use of these systems in helping patients with long-term conditions as an on-line resource. Specifically, the Whole System Demonstrator Action Network (WSDAN) will ensure that information from the pilot schemes in Kent, Cornwall and Newham, is shared to help spread best practice.

Building Telecare in England (Department of Health 2005) identified that there were 1.4 million people with some form of telecare (mainly pendant alarms). The Grant funding since 2006 has significantly increased the number of people benefiting as sensor-based systems have been brought into use. They are predominantly older (65+), more vulnerable people and we know those over 65 are the least likely to use other technologies such as the Internet and mobile phones.

As people age, they risk becoming isolated as their friends and colleagues die and they are no longer able to get out as easily. Isolation may also be the result of having a life-limiting long-term condition. The installation of telecare and telehealth equipment into people's homes could possibly be a vehicle for reducing isolation and achieving broader digital inclusion if emerging technology also provides enhanced communications functionality. Complementary Internet-based services, for example, could support social networks alongside interaction with health and social care providers. Electronic communications could help someone who is socially isolated meet new people, join peer support groups, access valuable information and use public services from home, thereby enhancing independence.

Some future challenges and opportunities in this area include the following:

- Opportunities to integrate with other communications technologies like the internet in order to support increased interaction between the end user, control centre, social services, family carers, private/third sectors and even peers.
- Some telehealth equipment requires a broadband connection which in turn might be exploited to offer other services such as videoconferencing, local media, management of domiciliary care provision, booking attendance at events, arranging 'dial-a-ride', promote reading circles etc.

- Technology potentially has a role to play in reducing carer exhaustion. In Newham, for example, a significant proportion of entries into residential care have either a primary or secondary cause as 'carer exhaustion'. Some entries are clearly unavoidable but using the technology to help carers to share their woes and get support and generally to enrich their lives might help them to continue caring.
- It is typically local authorities, housing associations and other local organisations that buy telecare and telehealth equipment and arrange installation – connecting it up to a control centre. However there is a potential retail market in self-help telecare and telehealth equipment. For example, it is estimated that in the UK there are 6,000 people taking on a caring responsibilities.<sup>43</sup> Self-help technology could support these carers and their family member or friends in their care. Furthermore, under personal budgets, people with social care assessments will be able to use their money to make retail purchases. A retail market would need to be based on open technical standards, for example to ensure interoperability with state-funded monitoring services and allow users to incrementally buy systems that meet changing needs.
- As technology progresses, not least our national communications network, which relays telecare messages, older telecare equipment will need replacing with next generation technology. This may provide opportunities to consider how digital inclusion can be achieved at the same time as technology refresh.

Some of these challenges and opportunities will be investigated through the Technology Strategy Board's Assisted Living Innovation Platform (ALIP). The aim of ALIP is to significantly advance the technology to meet the demand for independent living from those suffering from chronic long term conditions, and the likely growth in those with such conditions with the increasing number of the elderly. The first tranche of nine R&D projects are supporting diverse technology requirements such as home based intelligent processing, wide area data collection and event management, and value added services for well being, lifestyle and health management. The most recent R&D call is considering how next generation tele-communications can help to deliver more effective and future looking assisted living services.

The key digital inclusion principle in the delivery of integrated health and social care is:

<b>Key principle:</b>	Where Government is rolling out, supporting the roll-out or regulating new infrastructure it will consider the opportunities to extend or promote digital inclusion.
-----------------------	--

<sup>43</sup> <http://www.carersuk.org/Home>

Actions the Government will take forward in this area are:

Ref	Action	Lead(s)	Timeframe
1	The Digital Access Provision (DAP) Forum will investigate the convergence between mainstream ICT and telecare/ telehealth equipment. It will work across industries, care services providers and users to design digital inclusion into next generation telecare.	BERR	Ongoing
2	The Technology Strategy Board will commission collaborative R&D for 'A Smart Care Distributed Environment', as part of the Assisted Living Innovation Platform, to explore service delivery over multiple channels including mobile phones and digital TV.	DoH	Ongoing

# Communities in control

The recent Communities and Local Government White Paper *Communities in control: real people, real power*,<sup>44</sup> published on 9 July 2008, passes real power into the hands of local citizens and communities, giving real control and influence to more people. The White Paper acknowledges the role that information has to play in achieving this.

Citizens often feel powerless because of a lack of information, in formats and places which are readily accessible and easily understood. More accessible and open information is a prerequisite to community empowerment. People want access to relevant information about the services and facilities which they use regularly – information which is understandable at the level of their neighbourhood or local area.<sup>45</sup> They also want to use information to get involved in local decisions.<sup>46</sup> When they can get such information, they often feel better about the quality of services. Yet in 2006-07, barely half of local authority residents felt that their council kept them very or fairly well informed about the services and benefits it provided – a decline of nine percentage points since 2003-04.<sup>47</sup>

The Internet offers huge opportunities to help provide information to citizens. However, there is a correlation between social and digital exclusion, with an estimated 15 per cent of the adult population (more than six million people) who suffer social exclusion also unable to use the internet.<sup>48</sup> Therefore, a range of methods to provide information will be necessary, using the media that different people prefer and delivered where they can easily access it.

## Current and ongoing initiatives

In the **Freedom of Information Act 2000** the Government ensured that citizens in England and Wales have a general right, with limited exemptions, to the information held by public authorities, including local councils, the police, the NHS, schools, hospitals, universities and government agencies.

The copyright in local government information is owned by the local authority. A number of public sector bodies have **authorised reuse of information** by offering online licences such as the Click-Use Licence, which is hosted by the Office of Public Sector Information. Any public sector organisation can allow their information to be made available via this route.

Local authorities, public service providers and websites set up by citizens are helping to ensure that more widespread up-to-date local data is published. NHS Choices publishes data to help patients make more informed choices about their care. In education, Ministers have made clear their expectations that all secondary schools by 2010 and all primary schools by 2012,

<sup>44</sup> [www.communities.gov.uk/documents/communities/pdf/885997.pdf](http://www.communities.gov.uk/documents/communities/pdf/885997.pdf)

<sup>45</sup> Darlow, A, Hawtin, M and Jassi, S (2008) *Reporting Performance Information to Citizens*, London: Communities and Local Government

<sup>46</sup> Ibid.

<sup>47</sup> Communities and Local Government (2007) *Best Value User Satisfaction Surveys 2006-07 – General Survey National Report*, London: Communities and Local Government

<sup>48</sup> Digital Inclusion Team (2007) *The Digital Inclusion Landscape in England: Delivering Social Impact through Information and Communications Technologies*, London: Digital Inclusion Team

will report online to parents about their children's attendance, behaviour and attainment, and special needs. And from July 2008 monthly crime information about types and levels of crime will be made available.

Government also wants people to have access to information on what is happening in their own areas. To achieve this Communities and Local Government (Communities and Local Government) is looking at how to open up further the elements of the Places database, a major repository of information about communities. This will help people better understand the trends and challenges in their local area. Communities and Local Government is also working with local authorities to pilot innovative approaches to sharing information with citizens, community groups and with third parties.

The Government recognises the importance of a range of media outlets, like community radio and television stations and local websites, as a way of promoting alternative information for discussion and debate, and enabling citizens to make choices about where to get information on their neighbourhoods. A strong independent media is a vital part of any democracy and there is a need to continue to support a range of media outlets and support innovation in community and social media.

## Democratic engagement

The Government's engagement programme aims to increase the capacity of Government to engage people in democracy ie public discussions and policy-making. There are a number of ongoing initiatives, these include:

- **The Governance of Britain:** website which provides information on the Government's programme of constitutional reform; this includes the Constitutional Renewal Bill, the Youth Citizenship Commission and the Statement of Values. It is an interactive site allowing visitors to post comments and engage in online discussions on various aspects of the British constitution.
- **The Digital Dialogues:**<sup>49</sup> project which investigates the use of online technologies (blogs, chat and forums) to promote dialogue between central government and the public.
- **The Building Democracy Innovation Fund:**<sup>50</sup> aims to stimulate and support innovative forms of community engagement is seeking a third phase of applications in Autumn 2008. An example of a project emerging from this fund is [www.fixmystreet.com](http://www.fixmystreet.com) which enables people to report, view, or discuss local problems like graffiti, fly-tipping, broken paving slabs, or street lighting.
- **[www.peopleandparticipation.net](http://www.peopleandparticipation.net):** based on the book *People and Participation* published by Involve, the website provides practical information for those working to involve people in local decision making. The site aims to be a central portal for information and inspiration about participation to practitioners in the public, private and voluntary sectors.

<sup>49</sup> [www.digitaldialogues.org.uk](http://www.digitaldialogues.org.uk)

<sup>50</sup> [www.buildingdemocracy.co.uk](http://www.buildingdemocracy.co.uk)



Communities and Local Government supports the promotion and delivery of community empowerment regionally, working through the Government Offices, a National Empowerment Partnership, the Regional Empowerment Partners and a Network of Empowering local authorities (NEAs). This framework of support is key in overseeing and assisting local authorities' progress towards:

- PSA 21, national indicator 4, "the numbers of people who feel they can influence local decisions", and
- Compliance with the best value duty to inform, consult and involve, coming into force in April 2009.

The key digital inclusion principles around empowerment and democratic engagement are:

<b>Key principles:</b>	<ol style="list-style-type: none"><li>1) Assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills.</li><li>2) Increase the capacity of Government to engage with citizens (on/offline)</li><li>3) Develop innovative approaches to engage people.</li><li>4) Increase capacity of local government and partners to empower citizens.</li></ol>
------------------------	--

The key actions that Government is taking or will continue to take are listed below:

Ref	Action	Lead(s)	Timeframe
1	<p>Assist and motivate the most disadvantaged citizens and communities</p> <ul style="list-style-type: none"> <li>• pilot a Digital Mentor scheme in deprived areas to enable communities to make better use of the social media and improve media literacy.</li> </ul>	Communities and Local Government	<ul style="list-style-type: none"> <li>• Spring 2009–2011</li> </ul>
2	<p>Increase capacity of Government to engage with citizens</p> <ul style="list-style-type: none"> <li>• increased capacity of central Government policy teams to engage people in policy making</li> <li>• cross Government senior officials agree a strategy for cross-Government public engagement – and the capacity to support it.</li> </ul>	MOJ	<ul style="list-style-type: none"> <li>• Summer/autumn 2008: review stakeholder/action map to further embed engagement across Govt.</li> <li>• 2008/09: (continue to) work with Communities and Local Government to increase capacity of shared audience/intermediaries.</li> <li>• Work with Cabinet Office: Whitehall Senior Officials meet to facilitate co-ordination of cross-Govt engagement and capacity building.</li> <li>• March 2009: Govt. Depts, increase their take-up of MoJ-funded free consultancy advice</li> <li>• March 2009: on-line resources show increased use by central Government teams/key stakeholders</li> </ul>

Ref	Action	Lead(s)	Timeframe
3	<p>Increase capacity of local government and partners to engage and empower citizens</p> <ul style="list-style-type: none"> <li>• Supporting the National Empowerment Partnership, the national statutory and community sector organisations and networks working to improve the quality, co-ordination and evidence of empowerment.</li> <li>• Supporting the Regional Empowerment Partnerships to bring together all the main public and third sector bodies with a primary interest in empowerment to promote improvement in community engagement and empowerment practice in each of the nine regions.</li> <li>• Supporting the Network of Empowering Authorities: 18 local authorities selected to showcase excellent empowerment practice, promote peer learning, and provide a mechanism for authorities to influence the national policy debate</li> </ul>	Communities and Local Government	Ongoing
4	<p>Innovative approaches to engagement:</p> <ul style="list-style-type: none"> <li>• attract bids for pilot projects from non-government sector (primarily)</li> <li>• fund successful pilots</li> <li>• receive Evaluation reports</li> <li>• disseminate good practice case studies and guidance</li> <li>• lessons learned from 'Digital Dialogues' are disseminated.</li> </ul>	MOJ	<ul style="list-style-type: none"> <li>• Round 3 of competitive Democratic Engagement Innovation Fund announced autumn 2008</li> <li>• Select pilot projects (on/off-line)</li> <li>• Pilot projects run and evaluated within 15 months</li> <li>• Autumn 2008: commence a new round of "Digital Dialogue" case-studies</li> </ul>

## Work and pensions

DWP is taking an ever-increasing role in the use of ICT to meet the needs of some of the most vulnerable and disadvantaged citizens and is active in the service transformation agenda as a key player in other cross government initiatives. Specific areas where technology is supporting vulnerable or disadvantaged groups are highlighted below.

### **Jobcentres**

Jobpoint terminals introduced at Jobcentres have replaced old postcards pinned to noticeboards. The terminals provide a great deal more information, and the whole database of 400,000 vacancies can now be accessed from any online terminal.

Jobseeker's Allowance claimants participating in the current New Deal programmes have access to training in areas associated with information technology. Under the Flexible New Deal, which will replace the contracted-out elements of jobseeker support from next year, back-to-work service providers will have the freedom to create their own programmes to deliver work-focused support, tailored to each individual's needs and consistent with local labour market requirements. The content of these programmes will not be dictated by the Department of Work and Pensions and therefore it will be up to the providers of the Flexible New Deal to decide whether information technology training would be of benefit to their customers.

### **Benefit payments**

The Benefit Payment Automation project has replaced the giro system based on 'ration book' technology, delivering – according to customer surveys – a much better service, and saving billions of pounds over a few years.

The My DWP, Benefits Adviser provides information on benefit entitlement across Government. It is being extended to provide access to customer information held by DWP (such as enquiries) and to enable online changes of circumstances and claims. DWP is looking to extend this service to trusted third parties who frequently deal with more vulnerable customers or those with more complicated circumstances.

### **Pension, Disability and Carers Service**

Joint visiting teams across the country are helping to increase benefit take-up and supporting some of the most vulnerable people in our communities by means of ICT. For example, the London Borough of Southwark is using a hand-held electronic tablet to capture information provided by people on visits, including pre-populating DWP benefit application forms. Referral officers from Tameside Borough Council visiting customers at home are using 3G-enabled laptops with online access to improve the help they can provide in people's homes.

The latest web-based technology will link into DWP, providing instant access to information and forms, allowing electronic transfer of information direct to processing centres, enabling claims to be dealt with more quickly.

## **Cross-cutting transformational initiatives**

DWP is working with other departments, agencies and local authorities on a number of cross-cutting transformational initiatives. These include the following:

### ***Tell Us Once***

The Tell Us Once programme is looking at the feasibility of citizens being able to inform government just once about a change in circumstances. Initially focusing on the registration of births and the reporting of deaths, it will be expanded later to include changes of address. The result will be fewer contacts for citizens and increased efficiency for government. We are testing the services by means of pilots involving central government and several local authorities. Different aspects of a potential service are being trialled, along with different channels – face-to-face, telephone and online through Directgov.

### **Online applications for free school meals**

Local authority free school meals services currently rely on paper-based applications. The parent or guardian applying has to prove that they are on benefits, which can take weeks to accomplish. Too often people abandon their claim halfway through, and their child misses out on that entitlement. The process can also cause embarrassment. The ambition is that if a parent or carer makes an application and is eligible then their child will be able to receive free meals within 48 hours. It is joining up local and central government for the citizen with very direct results. DCSF is leading this work, in collaboration with DWP and with Tameside Metropolitan Borough Council and Hertfordshire County Council.

### **Data sharing**

Effective data sharing is clearly important for joining up services – especially services for more vulnerable groups who have complex needs. The Government Connect programme, whose implementation is being managed by DWP, is helping address some of the key challenges. It offers a simplified, accelerated process for sending information securely. It will in due course become the technical platform for service transformation – allowing services such as Tell Us Once genuinely to join up local and national services, and so taking a big step further the potential of the partnerships being developed at the moment. It will provide a secure means of transmitting customer information immediately – rather than waiting for data matching.

<sup>51</sup> Speech: May 7 2008 [www.dwp.gov.uk/aboutus/2008/07-05-08.asp](http://www.dwp.gov.uk/aboutus/2008/07-05-08.asp)

The key digital inclusion principles around work and pensions are:

<b>Key principles</b>	<p><b>Citizen and community empowerment:</b> assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills.</p> <p><b>Service effectiveness:</b> promote, across all sectors, the more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p>“We often talk – rightly – about digital exclusion and the danger that some people, through lack of access to IT, will miss out on opportunities available to others. What we are talking about today though, is the potential to exploit technology to extend services and opportunities precisely to those people who have found it hardest to access them in the past: the vast potential for technology to open up access and serve – not exclusion, but inclusion”. Right. Honourable Stephen Timms MP<sup>48</sup></p>
-----------------------	---

Relevant actions that the Government is taking forward are listed below:

Ref	Action	Lead(s)	Timeframe
1	Looking at replacing dedicated terminals with online access kiosks, so that jobseekers can company websites and training information while they are searching the database at a Jobcentre.	DWP	2010
2	Introducing the first online entitlement claims, then extending to changes of circumstances and other claims.	DWP	2009
3	Assessing the demand for and costs and benefits of the introduction of a Tell Us Once service – initially focusing on the registration of births and the reporting of deaths, it will be expanded later to include changes of address.	DWP	2008
4	Piloting of online applications for free schools meals.	DCSF	2009
5	Moving nearly all government websites to Directgov by 2011, so that customers have a single place to find information.	DWP and Directgov	2011
6	Implementing the Government Connect programme.	DWP	Ongoing

# Directgov

Directgov is the primary government website for citizen-facing information and online services. It provides easy access all in one place to information and services across government. Directgov brings together a variety of online services, ranging from passport renewals and driving test bookings to finding a local NHS service. It is central to transforming services for the citizen, and by 2011 all public-facing services on central government websites will be available on Directgov. Directgov is closely aligned to [businesslink.gov.uk](http://businesslink.gov.uk) and NHS Choices.

Current digital inclusion activities include the following:

- New channels are being designed to help address non-web-using demographic. It has a mature mobile phone and digital TV service with particularly positive feedback from Directgov mobile users.
- Directgov's TV service is currently available on Virgin Media and Sky with a freeview and analogue TV version to launch early in 2009.
- A mobile 'find your nearest Blue Badge<sup>52</sup> parking space service' is in development, and is due to be launched in 2008.
- Directgov is used by a number of charities, including Citizens Advice.
- The Directgov digital TV channel offers Jobcentre Plus content – this is the most popular service on the channel. Directgov is looking to include the service on its mobile phone channel.
- Directgov is able to reach a wide range of groups through its franchise structure. Elderly people, disabled people, carers, parents and so on. directly influence the channels, services and content available from Directgov.
- Directgov is a lead sponsor of the UK Online 'Get online day'.
- Directgov is working with NHS Choices and Starthere to run a number of pilots aimed at the digitally excluded over the next six months.

<sup>52</sup> The Blue Badge scheme provides a range of parking concessions for people with severe mobility problems who have difficulty using public transport.

# Justice

ICT and the use of innovative technologies are embedded within many MoJ policies to deal with processing of criminals through the courts, the consequences of crime and the rehabilitation of offenders.

## Courts

The need for accurate and timely court processing has led to the development by Her Majesty's Courts Service (HMCS) of a raft of court innovations using digital technology and media. These include the following:

- **virtual courts:** will use video conferencing technology to link police stations to courts for first hearings. This will allow defendants to be heard at court from police stations shortly after charge, thereby achieving speedier resolution for victims and witnesses. There is also the technology in place to allow all criminal justice system agencies to access documents and information instantaneously in a 'virtual space' and to work from electronic case-files.
- **XHIBIT:** this is a computer system for the Crown Court which provides hearing information to those who need it as events occur in the courtroom. XHIBIT is improving communications across the criminal justice system with the Police, victims and witnesses and Probation Service now able to receive courtroom information within minutes of the court hearing. Changes are proposed to XHIBIT in response to the Bichard 7 report, to enable more detailed information to reach the Police National Computer (PNC); this will result in the PNC being updated faster and more accurately.
- **Digital Audio Recording Transcription and Storage (DARTS):** this is a project to replace analogue tape recorders digital recorders in all Crown and combined courts in England and Wales. This will provide better quality recordings, faster (and more accurate) transcription services, easy access to playback, and data backup (which is not currently available).
- **Electronic Presentation of Evidence (EPE) in Crown Court courtrooms:** EPE, now available in nine Crown Court courtrooms, provides for the display of evidence to all parties via monitors installed in a specially equipped courtroom, using modern high-quality presentation software. This ensures that everyone concerned in the trial is looking at the same document at the same time. Initial studies indicated that the electronic display of evidence in complex trials is helped to make fraud trials easier for juries to follow and therefore to ensure that they are fairer.
- **Prison video links:** these have been particularly effective in short hearings, avoiding the need for defendants in custody to be brought to court and spend an entire day in transport temporary custody for a five-minute hearing. There are savings in transport costs and there is a reduced risk of defendants absconding. When the equipment is not in use for conducting hearings in court, counsel and probation staff are able to conduct legal conferences and prepare probation reports via the link instead of attending prisons.
- **The DVD: *Going to Court: A Step By Step Guide to Being A Witness*:** this is available to prosecution and defence witnesses attending criminal courts across England and Wales. It is an interactive, multilingual, animated DVD designed especially to help adult witnesses understand their role in the court process. The DVD is available at [www.direct.gov.uk/goingtocourtvideo](http://www.direct.gov.uk/goingtocourtvideo)



- **The DVD *Your Role as a Juror***: this outlines what to expect as a juror. It is shown to every new juror in the country on their first day of jury service. All the information in it applies to all jurors, no matter which Crown Court they are in. The film shows everything from the basics of what jurors will need to know when they are in court, to delivering the verdict and beyond. It gives jurors an opportunity to find out more ahead of their first day in court. [www.direct.gov.uk/jurorvideo](http://www.direct.gov.uk/jurorvideo)

The key principles underpinning digital inclusion and the courts system are as follows:

<b>Key principles</b>	<p>Promote, across all sectors, the more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p>All citizens according to their differing needs are entitled to access to justice, whether as victims of crime, defendants accused of crimes, consumers in debt, children in need of care, or business people in commercial disputes. Our aim is to ensure that access is provided as quickly as possible and at the lowest cost consistent with open justice and that citizens have greater confidence in, and respect for, the system of justice.</p>
-----------------------	---

The key actions that the Government is taking and will continue to are listed below:

Ref	Action	Lead(s)	Timeframe
1	Roll-out of virtual courts.	HMCS	<p>Successful prototype run during summer 2007</p> <p>Two national pilots to be established, commencing with London in December 2008</p>

Ref	Action	Lead(s)	Timeframe
2	Electronic Presentation of Evidence (EPE)	HMCS	Delivered in nine Crown Court courtrooms.  Based on this early roll out, the business case has not been proven and a number of other options are now being considered
3	A final decision on the business case for rolling out the DARTS project – imminent.	HMCS	Early implementation in seven courthouses by March 2009, followed by national roll-out from July 2009 over an 18-month period
4	Continued roll-out of prison video links.	HMCS	Prison video link equipment has been installed in 60 prisons, 152 magistrates' courts and 30 Crown Courts. Work is in progress to maximise use of existing equipment. Ongoing Action
5	Further promotion of HMCS DVDs <i>Going to Court</i> and <i>Your Role as a Juror</i> .	HMCS	Ongoing – the DVDs went onto Directgov in December 2007 and April 2008 respectively

## Public legal education

Public legal education (PLE) works to ensure that people: are aware of their legal rights and responsibilities and able to recognise where the law can provide a remedy; understand key legal issues and processes; have the confidence and skills to deal with their problems; and know where to go to get help.

PLE is blending digital channels to help people better understand everyday life issues, make better decisions and anticipate and avoid problems. Digital channels and applications can provide people with awareness, knowledge and understanding of rights and legal issues, together with the confidence and skills they need to deal with disputes and gain access to justice.

The key principles around PLE are as follows:

<b>Key principles</b>	<p>Law-related problems are so common that they have been called ‘the problems of everyday life’ – relationship breakdown, housing problems, debt and discrimination. Most people struggle with these kinds of disputes and difficulties at some time in their lives, often with devastating results: worry and stress, even leading to ill health, and loss of job or home.</p> <p>PLE aims to equip people with the knowledge, skills and confidence to deal with these problems more effectively through the best use of innovative technology.</p>
-----------------------	--

The key actions that Government is taking or will continue to do are listed below:

Ref	Action	Lead(s)	Timeframe
1	Improving access to information by utilising audio/visual content to simplify complex justice processes in undertaking web convergence with Directgov.	MoJ	by 2011
2	Developing an interactive online resource, <i>Your Justice, Your World</i> , to help young people access the justice system. This takes a games-based approach and combines formal learning goals with informal engagement techniques such as quizzes, scenarios and extended classroom activities.	MoJ	by March 2009
3	Widening access to information currently available via DVD by making it available online. This could be particularly useful for resources on certain issues where people need to feel safe when accessing information and support.	MoJ	Ongoing
4	Working with the third sector to establish a network that will help raise awareness of digital media and continually increase practitioner skills in utilising them.	MoJ	Ongoing

## Debt and housing

The debt and housing branch of Justice has developed two widely used online services:

- **Money Claim Online:** this was launched in 2001, and allows specified money claims to be issued online, at a reduced fee. The service allows access to justice to those who are unable to visit their local court, and offers a cheaper and more efficient service for all users. The service has proved immensely popular, with 152,000 claims issued in 2007–2008. The website is currently being rebuilt in order to ensure compliance with enhanced banking security measures, to future-proof the system in terms of capacity, and to introduce functional changes that will enhance the user experience.
- **Possession Claim Online:** this was launched in October 2006, and allows mortgage and rental arrears claims for possession to be issued electronically. Claimants can either issue claims one at a time, or use the bulk interface facility to issue claims in bulk. In April 2008, up to 57 per cent of all possession claims were issued online through the site. Once issued, claims are automatically listed and the parties informed, and claim packs are issued from a central print centre, all of which saves court staff valuable time. Government is currently in the process of delivering a series of performance and functional enhancements, from which users, court staff and the judiciary will benefit.

The key actions that Government is taking or will continue to take are listed below:

Ref	Action	Lead(s)	Timeframe
1	Rebuilding of Money Claim Online site.	MoJ	Requirements stage of rebuild project during summer 2008 Delivery of new site from December 2008
2	Possession Claim Online performance upgrade, which will significantly speed up processing times within the site.	MoJ	July 2008 From October 2008, functional enhancements will offer improvements to all users.

## Reoffending

Tackling reoffending is a priority for government. Offenders often come from disadvantaged backgrounds and have complex social needs – they are far more likely than the general public to have experienced unemployment and a disproportionate number have been through the care system as children. They are less likely to have adequate literacy and numeracy skills and are more likely to suffer from physical and mental health problems. Offenders are also more likely to be drug users: an average of 55 per cent of new prisoners test positive for Class A drugs.

There is a high level of operational churn in prisons, with approximately 80,000 offenders being released each year against a current population of 83,399 (October 2008). At any one time around 190,000 offenders are subject to supervision by the Probation Service. The current reconviction rate for offenders leaving prison is approximately 67 per cent. The key problems faced by offenders leaving prison and most likely to contribute to reoffending are:

- **homelessness:** a third of offenders lose their accommodation
- **financial problems:** one-fifth leave prison facing financial difficulties
- **disrupted family life:** over 40 per cent of offenders lose contact with their families
- **unemployment:** offenders frequently suffer from discrimination in the workforce.

The Government has recognised that technology has a significant role to play in supporting offenders inside institutions, and in equipping ex-offenders with the skills and support necessary to reduce reoffending. Current initiatives include:

- **Offender Learning and Skills Service:**<sup>53</sup> the specification for the service – the Offender Learning Journey – includes basic ICT training as well as learning delivered through the medium of technology
- **learndirect centres:**<sup>54</sup> – currently in approximately 20 prisons
- **‘virtual campus’ being trialled in prisons in two ‘test bed’ regions:** this allows prisoners closely controlled access to specified websites in order to access a range of learning and employment related applications without compromising security
- **the Polaris project:** currently in eight London prisons, this allows controlled web access without compromising security
- **Prisons ICT Academy:** a programme of ICT training in prisons, established in 20 sites across the UK.<sup>55</sup>

However, providing access to technology and both ensuring that the benefits are delivered are not easy – there are significant barriers, including:

- **security concerns:** prisoners’ web access is properly restricted
- **interrupted learning:** learning is often interrupted by court appearances and transfer of offenders between institutions, although the LSC’s Learner OLASS plan, now being introduced, will help to mitigate this by making learner information easily and immediately available on transfer
- **equipment:** hardware and software are difficult to keep up-to-date, although the LSC has invested £11.4m in refreshing the technology used by its providers to deliver learning in prisons
- **engagement:** long term reoffenders often do not understand the importance of ICT or that will make them more employable
- **rapid changes in technology:** these place offenders at particular risk of falling well behind while they are in institutions.

Barriers aside, there is clearly greater potential for technology to tackle reoffending that we are currently exploiting. There are seven recognised pathways to reduce reoffending and facilitate ex-offenders’ reintegration into society.<sup>56</sup> Technology can clearly support each of these pathways – there are innovative and creative services available for each, which could

<sup>53</sup> [www.dfes.gov.uk/offenderlearning/index.cfm?fuseaction=content.view&ContentID=4](http://www.dfes.gov.uk/offenderlearning/index.cfm?fuseaction=content.view&ContentID=4)

<sup>54</sup> [learndirect prisons pilot](http://learndirect.prisons.pilot), [www.ufi.com/home/section1/6\\_projects/ESFEvaluation.pdf](http://www.ufi.com/home/section1/6_projects/ESFEvaluation.pdf)

<sup>55</sup> [www.niace.org.uk/online/Documents/Elaine%20Morris%20PICTA%20OLSU.pps](http://www.niace.org.uk/online/Documents/Elaine%20Morris%20PICTA%20OLSU.pps)

<sup>56</sup> see (2002) Report *Reducing Re-offending by Ex-Prisoners*

help to tackle the problems commonly faced by offenders upon release. Examples against each of the seven pathways include the following:

- **Accommodation:** choice-based letting, bids for social housing, housing advice prior to release.
- **Skills and employment:**
  - Remote learning, such as Learndirect, the Open University, alternative provision VLEs, etc.
  - Employment and training placements; for example, Meganexus is an application, running on the virtual campus being trialled in two 'test bed' regions (see above), which puts offenders at the heart of a social network of employers and local third sector organisations to offer training and employment opportunities.
- **Health:**
  - Access to online health advice and service – NHS Direct and NHS Choices
  - CDROM-based cognitive behavioural therapy like *Beating the Blues* and *Fearfighter* for mental health support.
- **Drugs and alcohol rehabilitation:**
  - Online, email and SMS-based 'remote' cognitive behaviour for treatment of addictions (eg Addictions UK).
- **Finance, benefit and debt:**
  - Access to financial advice online and support from Citizens Advice/Adviceguide.
- **Children and families:**
  - Technology can help families to stay in touch with each other.
- **Attitudes, thinking and behaviour:**
  - Serious gaming technologies can be used to prepare offenders for release, for example 'Soul control'/Beat the Dealer, Lifting the Weight.

Therefore there are opportunities to consider extending more IT-enabled services, within security constraints, to offenders within institutions in order to help tackle re-offending rates. The document *Reducing Re-Offending Through Skills and Employment: Next Steps*<sup>57</sup> sets out the Government's plans to improve the use of technology in delivering teaching and learning and offering more widespread access to ICT qualifications.

<sup>57</sup> <http://noms.justice.gov.uk/news-publications-events/publications/strategy/DfES-Reducing-Re-Offending>

The key digital inclusion principles underpinning policy on supporting offenders and ex-offenders are detailed below:

<b>Key principles</b>	<p><b>Citizen and community empowerment:</b> Assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills.</p> <p><b>Service effectiveness:</b> promote, across all sectors, the more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p><b>Training and skills:</b> media literacy is now as important as numeracy and literacy – it is a life skill that is as important out of the workplace as in the workplace. Appropriate training – both informal and formal – should be open to all, regardless of background or location, to attain a minimum set of skills appropriate to participating in today’s knowledge society.</p>
-----------------------	--

Actions the government will take forward are as follows:

Ref	Action	Lead(s)	Timeframe
1	Polaris is being piloted in eight prisons. It aims to give prisoners the opportunity for e-learning and job-searching, made available via a standard platform across the prison estate.	National Offender Management Service (NOMS) and MoJ	Currently piloted in eight prisons.
2	A ‘virtual campus’ is being trialled in prisons in two ‘test bed’ regions. This allows closely controlled access to specified websites to access a range of learning and employment-related applications without compromising security.	NOMS/LSC	Currently being trialled in selected prisons in two test bed regions.
3	Provide VCT facilities for offender managers to communicate with offenders and staff in custody and attend sentence-planning meetings.	NOMS/MoJ	Set up and run pilot and across 40 prison and probation areas in the South East, starting in September 2008.

Ref	Action	Lead(s)	Timeframe
4	Supply digital TVs to all prisons by 2012 to provide prisoners with access to additional digital TV channels, a DVD channel and an information channel that can be used to provide information about prison regimes, jobs and services.	NOMS and MoJ	<p>Thirty-three prisons have already switched over to digital TV.</p> <p>Prisons will be switched over by ITV region, following the Government's switchover timetable.</p> <p>Project to finish by full switchover date of 2012.</p>



# Rural communities and the environment

Defra has the lead responsibility for environmental issues, climate change, the countryside, wildlife, animal welfare and sustainable development. It is also the focal point for rural policy across government, ensuring that policy interventions take into account the rural dimension, so that the outcomes in rural areas are not significantly different from those in urban areas. Defra is assisted by the Commission for Rural Communities (CRC) – the Government's adviser and watchdog on rural issues.

Technology has an important role to play in supporting strong rural communities, and in particular in supporting more efficient and effective public service delivery. As mentioned in the broadband section of this document, over 99 per cent of UK households are now able to access broadband. The remaining households are typically in rural villages and remote rural areas and are unable to receive broadband due to technical difficulties. The intention is that they should be serviced in the future using a range of alternative technologies, such as fixed wireless, satellite and cable. Regional development agencies and local authorities are working to address the gaps of broadband access in their regions. For example, Yorkshire Forward has been involved in interventions to encourage broadband supply and take-up in its region, including rural North Yorkshire.

Across the UK there has been a significant increase in broadband take-up over the last 12 months. Nearly 6 in 10 homes (57 per cent) in the UK now have a broadband internet connection (with just 8 per cent on a narrowband dial-up internet connection). The UK's rural areas have seen big increases in broadband take-up, but rural areas suffer from poorer quality access to first generation broadband – meaning that average speeds are often lower, or in some cases that there is no access at all. This urban/rural divide in infrastructure has the potential to widen with the advent of next generation broadband. Communities and Local Government and Defra intend to commission research work to conduct an analysis of the potential benefits emerging from access to high-speed broadband, and highlight any disadvantages for communities of not having access to new services and applications. The research will determine what can be done at a local level to address the problems identified.

In terms of existing broadband provision, there are some excellent examples of local community-based solutions around rural broadband provision in the UK. Some of these have already been highlighted in the broadband section of this document, such as Switch on Shropshire, Nynet and Great Asby Broadband. Others include:

- **Project Access:** the result of the Northwest Regional Development Agency's goal of enabling all organisations and households in Cumbria to have access to the same level of broadband service at the same price as urban ones<sup>58</sup>
- **Community enterprise, Cybermoor:** tackles some of the problems associated with remoteness and distance through IT and the internet<sup>59</sup>.

<sup>58</sup> [www.cybermoor.org](http://www.cybermoor.org)

<sup>59</sup> [www.cumbriaaccess.com](http://www.cumbriaaccess.com)

In the farming sector there are some innovative initiatives around public services, as follows:

- **The Whole Farm Approach:** an online service for farmers and growers in England. It supports the farming industry by improving customer services, co-ordinating and streamlining on-farm inspections, providing targeted advice and ensuring better policy development.
- **Livestock tracking:** to control diseases that affect animal health (and in extreme cases human health) requires detailed information on livestock farmers, their animals, their locations and the movement of animals between locations. Much of this information can now be transferred electronically, improving efficiency and data quality. This is a service that some livestock farmers are not able to conduct electronically and they are missing out on the business benefits.
- **Animal health information and alerts:** a mix of channels is now used to communicate with key stakeholders and livestock owners during disease outbreaks, including voicemail, fax, email, text messages and a recorded helpline.
- **Natural England:** makes use of technology to deliver environmental stewardship.

However, against this backdrop of innovation there are concerns that only around 50 per cent of the farming community own or have access to computers, and there is evidence of low levels of ICT literacy in the sector. So digital inclusion is of significant relevance to rural communities for the following reasons:

- Technology can support more equitable access and delivery of public services to rural areas, as it does in urban areas.
- Technology is important for quick and effective reach of communications to rural communities – particularly around animal health, disease and environmental information.
- There are risks that rural areas will fall behind if the gap between communications infrastructure in rural areas and urban areas is allowed to grow significantly.
- Rural services such as environmental permits and livestock monitoring can be delivered more efficiently and effectively electronically; digital inclusion will increase the reach of the benefits of these services.

The second point is particularly important – technology enables the communication of information quickly and effectively to rural communities. During the September 2007 outbreak of foot and mouth disease, vital disease updates, guidance and support were available on Defra's website as soon as new developments occurred. This provided up-to-date information on the spread of the disease and its control measures. Those with Internet access were able to keep themselves better informed.

Furthermore, those with broadband are able to make better use of some public services. The Whole Farm Approach is one such example where slow speeds and dial-up restrict the services that farmers can reasonably use online. This highlights one of the problems associated with rural ICT infrastructure that has already been presented in the broadband section.

Environmental information is more frequently being made available online and via other electronic channels, such as digital TV and mobile phones. Greater awareness of environmental information should lead to greater uptake of energy-saving measures, so reach is very important. Some innovations in this area include the following:

- The **Act on CO<sub>2</sub> Calculator**: is an engaging and simple web-based tool that allows people to calculate their personal or household carbon footprint. Users can compare their footprint to the UK statistical average to see how they compare with other people. The calculator also provides an action plan, with a list of personalised recommendations about how to reduce carbon emissions. This is now available via mobile phones and digital TV.
- **DirectGov**: now includes material on greener living, which is also being made available via mobile phones and digital TV.

Buying, selling or exchanging goods on the Internet can also encourage waste prevention and the re-use of products as substitutes for new products. Greater use of the Internet for a whole range of transactions – especially commercial transactions – can substitute for paper transactions and so reduce paper waste. The *Waste Strategy for England 2007* stressed that greater emphasis should be put on waste prevention and re-use, putting them at the top of the waste hierarchy in order to reduce waste and produce climate change benefits; it also identified paper as a priority material for waste reduction. Greater digital take-up would benefit waste objectives if:

- it stimulated greater re-use of products, building on the success of existing websites such as eBay and Freecycle
- it promoted reduction in paper bills, financial statements, direct mail, annual reports, catalogues and similar products by using electronic means.

The greater penetration of ICT in homes, business and government does have potential environment implications – for example increased energy consumption and disposal issues. The green ICT agenda is of growing interest to government, and the Chief Information Officer is developing a strategy for government on green ICT.<sup>60</sup> Digital inclusion policy needs to be consistent with this strategy.

<sup>60</sup> Greening Government ICT, [www.cio.gov.uk/greening\\_government\\_ict/](http://www.cio.gov.uk/greening_government_ict/)

The key digital inclusion principle related to rural communities and the environment is as follows:

<b>Key principle</b>	Government will work in partnership with the private and third sectors, to help all citizens to access essential and universal public services according to need – regardless of ability or location.
----------------------	---

Key actions the Government will take forward are detailed below:

Ref	Action	Lead(s)	Timeframe
1	Defra and BERR will continue to work together to ensure that the needs of rural communities are taken into account in ICT and broadband policy development.	BERR/Defra	Ongoing
2	Analyse of the potential risks for communities or places around emerging high-speed services and applications to evaluate whether the UK, or parts of the UK, will be at a disadvantage.	Communities and Local Government and Defra	February 2009

# Culture, media and sport

## Digital switchover

The digital switchover programme is being rolled out on a region-by-region basis between 2008 and 2012. Under this programme, analogue television signals are being switched off and digital signals activated. Viewers will need to upgrade their TV equipment or purchase a set-top box in order to receive digital signals, whether through their aerial, by satellite, cable or broadband.

Switchover is taking place because it will provide everyone with better, more varied television – irrespective of where they are in the UK – and broader access to a wider range of digital services. Digital TV is also more efficient, since it can carry many more channels than analogue TV and will free up spectrum that can be used for a range of new services, including high definition TV services, mobile TV, wireless broadband and local TV.

In order to ensure that older and more vulnerable members of society are not left behind without support, the Digital Switchover Help Scheme (DSHS) has been established to provide practical help for those people who might be expected to have the most difficulty in making the switch to digital TV. The DSHS, which is backed by £603m funding, supports:

- those aged 75 or over
- those who are entitled to attendance allowance, constant attendance allowance, mobility supplement or disability living allowance
- those who are registered blind or partially sighted.

The scheme is free of charge where the qualifying person or their partner is receiving pension credit, income support or income-based jobseeker's allowance. Other qualifying persons will need to pay a subsidised amount of £40. The basic option offered under the scheme is a set-top box to convert one TV set, free installation and a helpline. The eligible person may, however, choose from other options such as an integrated television set, digital recorder, or an alternative platform such as satellite, cable, Internet or Freesat. The scheme offers a contribution to the cost of these options where they are higher than a set-top box.

There are obvious links to digital inclusion around the DSHS: the audience is one which is predominantly digitally excluded – lacking access to other digital services from the public, private and third sectors. There has been some consideration of the potential for including return-path capability within the DSHS set-top boxes, which could help to deliver many complementary services into domestic homes. The current absence of an open standard for return paths has been identified as a drawback by DCMS, BERR and the BBC. The Government and the BBC (which leads the DSHS) will continue to track the market and keep this situation under review.

The range of services that is available to those with the correct receiver equipment will continue to expand. The DigiTV service, which emerged from the Local e-Government Programme, is supporting around 80 local authorities to deliver local services via digital TV. There are significant numbers of additional local authorities and housing associations

evaluating whether to join the service this year. Those that subscribe are able to offer a wide variety of informational services. Many are also delivering transactional services such as GP bookings and choice-based lettings. New services via TV that are being investigated include: paying bills (rent, council tax, etc), library services (reserve, renew, book access to a PC), summary health records, jobs/recruitment services, e-petitioning, Meals on Wheels and carer support services. There are other central government services that are available through digital TV via Directgov. These include: job searching, benefits information, information for those aged over 50, legal advice and training, careers and course advice via the Learndirect callback service, and a 'find your local UK Online centre' search, although these are similarly only fully available to those with a return-path digital TV capability. Planned new services for the Directgov TV service include a search for volunteering opportunities and a callback service from Community Legal Advice. There have also been health services delivered on digital TV such as NHS Direct Interactive, and the shape of future digital TV health service delivery is currently being considered and scoped.

The key digital inclusion principles underpinning digital switchover are detailed below.

<b>Key principles</b>	<p><b>Citizen and community empowerment:</b> assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills.</p> <p><b>Service effectiveness:</b> Promote, across all sectors, more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p>The DSHS is designed to protect elderly and vulnerable people from the loss of their TV services at switchover.</p> <p>The Government will keep under review the possibility of return-path capability being incorporated into the set-top boxes provided under the DSHS, order to extend the reach of public services.</p>
-----------------------	--

Actions that the Government and partners will take forward are as follows:

Ref	Action	Lead(s)	Timeframe
1	The integration of Hull's IPTV service with Kirklees' DigiTV service to offer councils an enhanced platform for delivering services via digital TV, IPTV and mobile phones.	DC10	2010
2	Desk review into the potential for interactive digital television and games to offer access to opportunities for learning.	Becta and Futurelab	March 2009

<sup>61</sup> [tseniority.idieikon.com/index.php/lang-en/pilots](http://tseniority.idieikon.com/index.php/lang-en/pilots)

Ref	Action	Lead(s)	Timeframe
3	Assisted living technology convergence research – IP-enabled telecare in the home using the TV as the key device for user interaction.	NHS strategy board, Tunstall and DigiTV	Three-year programme starting July 2008
4	T-Seniority Pilots – Europe-wide (seven countries) telecare/telehealth services via TV <sup>60</sup>	European Commission and DigiTV	Two-year project starting July 2008

## The BBC

The BBC is not a government department but its work on digital inclusion is important to include in this annex of public sector activity. The BBC is constitutionally established by a Royal Charter. The current charter was granted in 2006 following a government review and took full effect in 2007. The new charter sets out the six public purposes of the BBC. The sixth of these is ‘delivering to the public the benefit of emerging communications technologies and services’.

The BBC has summarised the specific responsibilities in relation to this that were mandated in the Royal Charter in the purpose remits<sup>62</sup> set out by the BBC Trust. These include taking a leading role in the switchover to digital television and increasing the availability of digital radio (DAB). In addition, the BBC Trust has stated that “the BBC should work with other UK bodies to end the ‘digital divide’ between those who enjoy the benefits of digital technologies and those outside that group”.

There is now a degree of consensus around the considerable social and economic value of broadband take-up and also the idea that the Internet will play an increasingly important role in the delivery of public service broadcasting.

The BBC believes that it could have a positive impact driving broadband take-up in the same way as it has done with digital television and radio. Specifically, it could do more to promote digital inclusion, including the following:

- **Content and services:** existing and new kinds of BBC content made available through new digital television, radio and online services are potentially a powerful means to drive adoption of new technologies.
- **Platforms:** as audience behaviour changes with the adoption of new technologies, the BBC seeks to deliver content to a variety of platforms and devices. The BBC anticipates the convergence of television and radio devices with internet-based technology. This could be important in driving demand for broadband towards 100 per cent.
- **Marketing:** in the same way as the BBC has supported Digital UK towards its goal of increasing awareness of digital television, it could also have significant impact with a similar cross-platform campaign to engage digital media novices and encourage so called ‘refuseniks’ to adopt broadband.

<sup>62</sup> [www.bbc.co.uk/bbctrust/framework/purpose\\_remits.html](http://www.bbc.co.uk/bbctrust/framework/purpose_remits.html)

- **Media literacy:** the BBC aims to help all audiences to “access, understand and create different types of media”, as part of its education and learning public purpose. BBC Learning<sup>63</sup> helps adults to improve their core life skills, including reading, writing, numeracy and IT. There are similar initiatives for children, such as BBC Bitesize. In both areas – and in partnership with others – the BBC could do much more and it is well placed to have a significant impact. It is a founder member of the Media Literacy Taskforce and the Charter for Media Literacy.
- As part of its engagement in Ofcom’s review of public service broadcasting, in autumn 2008 the BBC will present for consultation proposals relating to how it can help to drive broadband Britain. Much can be achieved by repackaging existing activity for those on the wrong side of the digital divide, but there are also exciting opportunities for larger-scale activity in partnership with other organisations around the UK.

Ref	Action	Lead	Timeframe
1	Consultation proposals relating to how the BBC can help drive broadband take-up in Britain.	BBC	Autumn 2008

## 2012 Olympics

The Olympics captures a lot of the spirit of inclusion and equality and links to the Olympics could potentially yield a digital inclusion legacy. Opportunities include but are not limited to the following:

- Partnership-working and engaging the private sector, particularly the ICT sector, which offered its vision for the Olympics through the Information Age Partnership (IAP).<sup>64</sup> Often the most successful ways of engaging people in using technology for the first time involve purposeful activities – where the technology is just an enabler for achieving other objectives – such as family history investigation, shopping and entertainment. The Olympics offers opportunities for taster sessions and purposeful activities, for example remote and virtual participation in the Games and the activities around them.
- Outreach and the support of volunteers is often important to achieving digital inclusion – for example in UK Online centres, ‘Silver Surfer’ events, etc. Volunteering is particularly important to the Olympics too. There are, perhaps, ways in which the spirit of volunteering around the Olympics could boost volunteering for digital inclusion. For example, people will be invited to volunteer to support visitors physically in London, or volunteers could be invited to support people to find their way around the ‘digital games’ throughout the rest of the country.
- Platforms such as Home Access, Home Access Older People, Digital Switchover IPTV boxes and 3G phones could all be delivering by then and the Olympics could be an engaging way to drive up the use of these platforms.
- Broadcasting links: the BBC and other channels are likely to be providing Olympic content, for example via iPlayer or other similar applications, or BBC archives may be able to provide old Olympics coverage, etc; this will provide opportunities for purposeful activities and

<sup>63</sup> [www.bbc.co.uk/learning](http://www.bbc.co.uk/learning)

<sup>64</sup> [www.iapuk.org/workstreams/archive/iap\\_group\\_on\\_towards\\_2012](http://www.iapuk.org/workstreams/archive/iap_group_on_towards_2012)



non-accredited training around which to improve media literacy.

- Next generation broadband: there will be the opportunity to take the Olympics into some remote communities and demonstrate the potential of NGA.
- Marketing and communications: there may be opportunities to communicate and raise awareness of training or other opportunities on the back of the Olympics.
- In the wake of the Olympics, if digital inclusion activities have been successful at engaging people leading up to and during the games, then there is the potential to promote other 'non-entertainment' opportunities after the games – for example around government services/ e-learning and other uses of the technology, as follows such as:
  - health records and NHS Choices
  - virtual learning environments and education for literacy, numeracy, English for speakers of other languages
  - lifelong learning
  - healthy living – tackling obesity content related to the Games.

### **The Convergence Think Tank**

The Convergence Think Tank (CTT) was set up jointly by DCMS and BERR to examine the implications – both for individuals and markets – of technological convergence in the communications industries (IT, broadcasting and telecommunications). It will consider whether changes are needed to the existing regulatory framework, to reflect the changes brought about by convergence. The work of the CTT was guided by three over-arching themes:

- ensuring open markets
- empowering consumers and citizens
- providing universal access to high quality public service content.

## The third sector

The Office of the Third Sector (OTS) leads work across government to support the environment for a thriving third sector. The third sector has a critical role to play in helping to achieve digital inclusion. It has access to a wide range of support and service delivery as well as to disadvantaged groups, and can provide services and support in areas where government struggles and the free market does not see immediate opportunity for profit – particularly in the purely financial sense. The sector brings an enormous number of resources (financial, premises, ‘hands-on’ knowledge and experienced staff and volunteers) and most importantly the trusted links with excluded groups, which can help them to experience the benefits of technology. Through campaigning, giving voice to those who are seldom heard, service delivery and assisting with the design of public services, the sector also has much to contribute to service modernisation and digital inclusion.

The levels of experience of using technology in creative ways are often high in the sector, and there are some excellent examples of successful projects for vulnerable groups or remote communities, for example:

- **horsesmouth**<sup>65</sup>: a dedicated website providing e-mentoring services across a host of topics, including life, work and learning.
- **Samaritans**<sup>66</sup>: provides email support for those who find it difficult to talk about their problems.
- **Cybermoor**<sup>67</sup>: a pioneering community co-operative providing broadband services in remote and rural communities in Cumbria.
- **COSMIC**<sup>68</sup>: COSMIC is a website design, consultancy and IT training social enterprise based in rural East Devon.

However, experience making best use of technology to support and engage people is dependent very much on organisational context – the third sector is broad and diffuse. There is some scope for capacity-building and support – particularly to raise awareness of new technologies and tools that are emerging and also to support applications that can deliver real social impact.

The success of a number of key social enterprises in delivering ICT services, support and engagement with disadvantaged groups through the use of technology is a good demonstration of how the sector can develop its role in digital inclusion strategies in a sustainable and effective way.

The Office of the Third Sector is supporting the digital inclusion agenda through a number of activities, which will help the third sector deliver to more effective and efficient services – particularly improved social outcomes. These activities include those listed below:

<sup>65</sup> [www.horsesmouth.co.uk/index.publisha](http://www.horsesmouth.co.uk/index.publisha)

<sup>66</sup> [www.samaritans.org/talk\\_to\\_someone/email.aspx](http://www.samaritans.org/talk_to_someone/email.aspx)

<sup>67</sup> [www.cybermoor.org/](http://www.cybermoor.org/)

<sup>68</sup> [www.cosmic.org.uk](http://www.cosmic.org.uk)

## Capacitybuilders: investing in ICT as a capacity-building 'tool'

ICT support to the third sector has been a priority since publication of the Government's 2004 ChangeUp Framework for building capacity in the third sector. The ChangeUp Framework recognised the importance of the third sector in addressing the digital divide, and in particular recognised the benefits of ICT for smaller organisations and those working in rural areas. Investment in delivering the ChangeUp Framework has supported a range of innovative work.

Since 2006, Capacitybuilders has been managing the delivery of the ChangeUp Framework. Capacitybuilders is a non-departmental public body, sponsored by the Office of the Third Sector. Capacitybuilders aims to strengthen the sector by enabling frontline organisations to access appropriate advice and support that meets their needs, when they need it. Support includes a wide range of services that help organisations to become more effective, such as information, advice, mentoring and training on a host of topics, including ICT.

Capacitybuilders has committed funding across its programmes to take this work forward through investment for 2008–11, including:

- Over £1m committed through a national priorities fund that will continue to support net:gain's<sup>69</sup> work in deprived communities, and a network of regional ICT champions for the sector.
- The new Responding to Social Change national workstream aims to improve support services that help frontline organisations to reflect on changes in society and exploit new opportunities.
- At a local level, both the Improving Reach and Modernisation programmes from Capacitybuilders include grants to improve ICT support for the sector.

An example of a project funded through Capacitybuilders is the Advice for Life mobile shuttle service<sup>70</sup>. This is a mobile service that provides access to broadband, via satellite, to rural East Anglia.

## Catalyst Awards: recognising good practice and innovation

The Catalyst Awards were established to recognise people, businesses, charities, community groups or other organisations who help their community by using social technology in new and exciting ways. For the purposes of the awards social technology means any internet, mobile or gaming software that lets you connect and communicate with other people. Examples are text messaging, social networking (eg Facebook, MySpace, Bebo) and blogging. Social technology is a key part of positive social action in the UK.

The awards are sponsored by NESTA, National Endowment for Science, Technology and Arts, the Department for Business, Enterprise and Regulatory Reform and supported by the Office of the Third Sector. The 2008 awards had over 100 entries with the winners announced on 24 July 2008.

They included:

<sup>69</sup> [ruralnet.typepad.com/netgain/](http://ruralnet.typepad.com/netgain/)

<sup>70</sup> [www.capacitybuilders.org.uk/detail/Mobile\\_shuttle\\_fills\\_the\\_broadband\\_gap\\_taking\\_ICT\\_training\\_to\\_rural\\_East\\_Anglia/35/34.aspx](http://www.capacitybuilders.org.uk/detail/Mobile_shuttle_fills_the_broadband_gap_taking_ICT_training_to_rural_East_Anglia/35/34.aspx)

- **Wheelies**: the world's first virtual disability nightclub. Founded in 2006, Wheelies has supported over 5,000 people in over 30 countries and its membership continues to grow.
- **The School of Everything**: which matches up would-be learners and would-be teachers, unleashing unused skills in local neighbourhoods.
- **FreqOUT**: harnessing Westminster Council's own wifi, FreqOUT engages socially excluded young people in a programme of wireless arts and education projects.
- **Liftshare.com**: the online car-sharing solution for councils, businesses, hospitals and community groups across the UK.
- **Savvy Chavvy**: a social networking site administered by its users where young gypsy travellers can network, blog and share media such as podcasts and video content among their peers. Savvy Chavvy now has 1,250 members that gives a voice to young travellers to help to change how their community is perceived.

### The Innovation Exchange

The Innovation Exchange has been established to help bring people together – innovators, investors and commissioners, in order to grow third sector innovation. It helps to make connections, build capacity and incentives for collaboration and harness resources to sustain and scale innovations.

The three-year pilot project has developed an online exchange, to enable people to come together and provide opportunities to innovate. Direct support is provided for the best of third sector innovation, including advice and facilitation and access to a £200k NESTA Innovation Exchange Fund. The Exchange is very much focused on social challenges particularly around independent living and excluded young people.

### Social Enterprise Ambassadors

In November 2006, the Social Enterprise Action Plan was launched to help create an environment in which social enterprise can thrive by fostering a culture of social enterprise; ensuring social enterprises have access to the right information and advice; enabling social enterprises to access appropriate finance; and enabling social enterprises to work with government. The Social Enterprise Ambassadors Programme is part of the drive to foster a culture of social enterprise and has been established to help raise awareness and understanding of social enterprise and encourage people to buy from, invest in, work for or set up a social enterprise. Two of the Social Enterprise Ambassadors run social enterprises that promote and support digital inclusion - Julie Harris is chief executive of COSMIC and Daniel Heery is Manager of Cybermoor (see projects earlier)

The key digital inclusion principle that these activities are supporting is:

#### Key principle:

The government will build capacity and capability within key organisations, sectors and professions to help to deliver digital inclusion

# Innovation

The Department for Innovation, Universities and Science (DIUS) is supporting government departments in fostering and supporting innovation.

Innovation is the successful exploitation of new ideas, often involving new technologies or technological applications. It can be used to create a new product or service or a new process for creating products, services or ways of doing things. Innovation in public services will be essential to the UK's ability to meet complex and urgent challenges such as climate change, an ageing population and public services that are more personalised, responsive and efficient. It is particularly important to the UK's ability to meet the challenges related to digital and social inequalities; for:

- For disadvantaged groups, transformation and radical changes to services can often be more beneficial than incremental changes to existing services that are failing to adequately meet their complex needs.
- Technology is an important driver of innovation and transformation. Innovative uses of ICT can help to address the problems facing socially excluded people in an efficient and cost-effective manner. The reports '*Inclusion Through Innovation*<sup>71</sup>' and '*The Digital Inclusion Landscape in England*<sup>72</sup>' have highlighted many innovative projects that are using technology to improve the lives of disadvantaged people.

There is a need to do more to stimulate and support innovation in public services. Major forces that set the conditions for the public services (such as policy, budget frameworks, guidance and legislation, and performance reporting) are not designed to create the incentives, signals and spaces for innovation, and can often create barriers and a heightened aversion to risk.

DIUS has developed a public sector innovation strategy to support government departments in fostering and supporting innovation throughout the public sector. Working with key partners, DIUS will take forward work that seeks to better understand and measure innovation in the public sector, promote better knowledge exchange and sharing of ideas and build a greater capacity and appetite for innovation. Activities include the following:

- The National Audit Office will conduct a study that will review how innovation is managed in central government departments and agencies.
- The Sunningdale Institute is developing a 'Whitehall Hub for Innovation' to capture and share learning on public sector innovation and build capability among policy-makers for leading and enabling innovation.
- NESTA are setting up a 'Public Services Innovation Laboratory' to trial radical experiments in public service innovation around key thematic challenges such as climate change, mental health, long-term health conditions and ageing.
- The Design Council is working with the Transformational Government agenda to develop and trial a programme for applying design techniques in order to innovate in the public services.

<sup>71</sup> Social Exclusion Unit (2006) *Inclusion Through Innovation: Tackling Social Exclusion Through New Technologies*. Office of the Deputy Prime Minister

<sup>72</sup> Digital Inclusion Team (2007) *The Digital Inclusion Landscape In England*

- DIUS has launched a 'Whitehall Innovation Group' for Senior Civil Servants to share best practice on public sector innovation.

In many cases, innovation is about making connections and transferring knowledge and solutions from those who have created them to those who need them. The E-Delivery Team, a division of DWP, has launched 'The Key'<sup>73</sup> in order to help transfer the latest IT innovations from the supplier community across the public sector. The Key provides exhibiting companies with access to support and mentoring services, enabling them to showcase their innovative products and solutions across the public sector. Products or solutions are required to go through an approvals process. The Key is running a series of themed calls for applications – the first themes are related to remote working and also green IT. However, there are opportunities to consider social exclusion themes in the future.

Local government also has an important role to play. The Innovation Forum, which was established in 2003, ran in conjunction with Communities and Local Government, the Local Government Association and the Improvement and Development Agency, and worked with well-performing local authorities to pilot new innovative programmes. The National Improvement and Efficiency Strategy<sup>74</sup> is committed to supporting future plans for innovation across local government. It goes beyond competence to innovation and transformation change, and represents a new level of ambition and vision to help local authorities to step up to the next level. The strategy provides the driver for the creation of the new Innovation Catalyst, which supersedes the Innovation Forum and is a sector-led approach that will support the growth of capacity in local authorities and their partners to innovate and tackle social challenges. The Catalyst will initially work with four local authorities to develop such innovations around the issue of youth crime, and will focus on working with other areas of the sector and engaging with local authorities on a wider portfolio to explore what forms of innovation support are likely to have the greatest impact. The work is overseen by the Local Government Association Improvement Board on behalf of the Improvement and Development Agency by a joint team from the Innovation Unit and the Young Foundation. A final decision on its future will be made early 2009.

The key digital inclusion principles that these activities are supporting are detailed below.

Key principles:	<p><b>Service effectiveness:</b> promote, across all sectors, more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p><b>Innovation:</b> government will build innovation capacity and capability around public services and policy delivery and ensure that this is directed at disadvantaged groups and the problems they face.</p>
-----------------	---

<sup>73</sup> [gic.clicksandlinks.co.uk/opencms/opencms/about/](http://gic.clicksandlinks.co.uk/opencms/opencms/about/)

<sup>74</sup> [www.communities.gov.uk/publications/localgovernment/efficiency](http://www.communities.gov.uk/publications/localgovernment/efficiency)

Actions around innovation that will support digital inclusion in part include the following:

Ref	Action	Lead(s)	Timeframe
1	Public services innovation laboratory to trial radical experiments in public service innovation around key thematic challenges such as climate change and ageing.	NESTA	Scheduled for launch in early 2009
2	Develop and trial a programme for applying design techniques in order to innovate in the public services.	Design Council and the Cabinet Office	Scheduled for launch in November 2008
3	Establish the Catalyst to develop innovations with local authorities around social themes such as youth crime, and to explore what forms of innovation support are likely to have the greatest impact.	Innovation Unit and the Young Foundation	2008
4	Consideration of a call for applications to industry for applications of technology which help to tackle a number of social exclusion themes.	The Key	2009

## Social exclusion

The Social Exclusion Task Force aims to extend opportunity to the least advantaged so that they can enjoy more of the choices, chances and power that the rest of society takes for granted. Social exclusion has its roots in poor early years; is compounded by the absence of basics such as a job and a home; and is often left unsolved by public services working in silos. To correct this, the Social Exclusion Task Force works with the rest of government to identify priorities, test solutions and facilitate collaboration across government.

The role of the Task Force is to coordinate the Government's drive against social exclusion, ensuring that the cross-departmental approach delivers for those most in need. The Task Force champions the needs of the most disadvantaged members of society within government, ensuring that, as with the rest of the public service reform agenda, they put people first.

A key strand of social exclusion policy is the socially excluded adults PSA (PSA16), which is focused on helping four vulnerable groups into settled accommodation, employment, education or training. The Social Exclusion Task Force also undertook the Families At Risk Review and in 2007 published the report *Think Family: Improving the life chances of families at risk*<sup>75</sup> which sets out a range of cross-government initiatives to support the most vulnerable of families. The review argues the need for all services, whether for adults or children, to be joined up and to have no 'wrong door', to look at the whole family and not just the individual and to tailor their services to the needs of both the individual and family. The Social Exclusion Task Force has produced a video to communicate some of the key messages from the Families at Risk Review, which features practitioners and family-members illustrating the key characteristics of services that 'think family'.<sup>76</sup> The work on *Think Family* is now being taken forward by DCSF through a £16m Family Pathfinders programme, which has funded 15 local authorities across England to come up with innovative ways to develop, implement and test the *Think Family* model.

Given the strong links between lack of engagement with technology and vulnerable groups, there are risks that digital exclusion will reinforce social disadvantage, but there are also opportunities to use technology to support these groups and improve life chances. Some key activities in this area include the following:

- The Oxford Internet Institute has published research characterising the links between social and digital exclusion.
- Communities and Local Government is working with the Citizens Online and the National Centre for Social Research to profile the ICT uses and channel preferences of socially excluded Adults PSA16 target groups.
- The Digital Inclusion Team is working with a number of local authorities to run innovation processes and proof of concept pilots around the four PSA16 target groups and Families at Risk.

<sup>75</sup> [www.cabinetoffice.gov.uk/~media/assets/www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/think\\_families/think\\_family\\_life\\_chances\\_report\\_per\\_cent20pdf.ashx](http://www.cabinetoffice.gov.uk/~media/assets/www.cabinetoffice.gov.uk/social_exclusion_task_force/think_families/think_family_life_chances_report_per_cent20pdf.ashx)

<sup>76</sup> [www.cabinetoffice.gov.uk/social\\_exclusion\\_task\\_force/families\\_at\\_risk/think\\_videos.aspx#think](http://www.cabinetoffice.gov.uk/social_exclusion_task_force/families_at_risk/think_videos.aspx#think)



- The Innovation Exchange is supporting the development of innovative solutions to the needs of excluded young people, including the use of digital technology.

Financial exclusion can carry real and rising costs for those already on a low income. The Government's financial inclusion work seeks to ensure that everyone has access to a range of financial services – especially a bank account to manage their money effectively and securely. The key technological challenge for the future will be new delivery systems for banking and payments (ie Internet banking, mobile banking). For many people these may make banking and other financial services easier and more attractive. However, there is also a danger that they could marginalise groups of people who are less comfortable with digital technology and prefer to access financial services through more traditional means.

In *Financial Inclusion: an action plan for 2008-11* the Government asked the Financial Inclusion Taskforce to monitor developments in the way banking services are delivered and distributed and keep the Government informed of opportunities and threats to its financial inclusion goals. The Government will look to the Taskforce to identify the impact of new digital delivery channels for financial services and to recommend action to support financial inclusion where needed.

Key digital inclusion principles that apply to social inclusion policy include the following:

<b>Key principles:</b>	<p><b>Citizen and community empowerment:</b> assist and motivate the most disadvantaged citizens and communities to achieve increased independence and opportunity through direct access to digital technology and skills.</p> <p><b>Service effectiveness:</b> promote, across all sectors, more efficient and effective use of digital technology to support the design, delivery and personalisation of services around the needs of disadvantaged groups and communities.</p> <p><b>Sustainable development:</b> monitor and provide evidence for the risks and opportunities of emerging digital technology for excluded groups and communities, including minimising the environmental impact of these groups.</p>
------------------------	--

Actions around digital inclusion and social exclusion that will be taken forward include the following:

Ref	Action	Lead(s)	Timeframe
1	Explore the role of ICT in improving the lives of families at risk in Kent.	DIT and Kent County Council	2008
2	Support the development of innovative solutions to provide for the needs of excluded young people, including the use of digital technology.	Innovation Exchange	2008
3	Innovation proof of concept projects for the socially excluded adults (PSA 16) target groups.	DIT and local authority partnerships	2009

# International development

## Background

In 2000, 147 heads of state and governments committed themselves to achieving the following Millennium Development Goals (MDGs) by 2015. The eight MDGs break down into 21 quantifiable targets which are measured by 60 indicators. The eighth MDG includes an explicit target of making ICTs available worldwide: “In cooperation with the private sector, make available the benefits of new technologies, especially information and communications”<sup>77</sup>.

Many developing countries are now experiencing the rapid diffusion of technologies such as the internet and mobile phones<sup>78</sup>. Between 2000-2004, the number of people in low-income countries with mobile phone subscriptions nearly doubled. Furthermore, growth rates for internet users in low-income countries has, in recent years, outstripped high-income countries.

A wide range of public, private and third sector organisations and entrepreneurial individuals in developing countries are grasping the opportunities for development presented by the diffusion of new technologies. Innovative applications of digital technologies to achieve social impact are emerging in areas such as healthcare, education and economic development.

## Example initiatives

The following sections provide a number of examples of international digital inclusion projects that have been highlighted in other reports and relevant literature. They have been compiled to provide a flavour of the types of projects that are being implemented – references are provided to all source documents.

## Healthcare

Examples of the innovative use of technology in healthcare include the following:

- **Delivering patient HIV/AIDS care (South Africa)**<sup>79</sup>; in Cape Town, an NGO called Cell-Life has developed an “Aftercare” programme to monitor patients receiving (Anti-Retroviral Treatment) ART. Aftercare workers visit patients and record their medical status and other factors that can impact upon their ART therapy. This information is then sent by text message to Cell-Life’s central database. These records not only assist caring for the patient, but can be used to help assess the pervasiveness of AIDS in each region.

<sup>77</sup> [www.undp.org/mdg/goal8.shtml](http://www.undp.org/mdg/goal8.shtml)

<sup>78</sup> p72–74 ‘*Technology Diffusion in the Developing World 2008*’, Global Economic Prospects, World Bank, 2008 (<http://econ.worldbank.org/external/default/main?pagePK=64167689&theSitePK=4503324&contentMDK=21603882&noSURL=Y&piPK=6416767>)

<sup>79</sup> p13–15 ‘*Wireless Technology for Social Change: Trends in Mobile Use by NGOs*’, United Nations Foundation and Vodafone Group Foundation, 2008

- **Connecting health clinics and remote health workers (Uganda)**<sup>80</sup>; Mobile PDAs are used to send and receive important health-related data using wireless networks. These devices can communicate vital medical information including instruction on disease treatment, educational materials and drug lists. The PDAs are also used for data collection so that medical workers can track their patients and create electronic records.

## Education

Examples of international digital inclusion initiatives related to education include the following:

- **One laptop per child (OLPC)**; is a non-profit organisation created to design, manufacture, and distribute laptops that are sufficiently inexpensive (approximately \$100 each) to provide every primary school aged child in the world with access to knowledge and modern forms of education<sup>81</sup>. By focusing on primary school age children, this project contributes towards the second MDG of achieving universal primary education. Its emphasis on child ownership (allowing the laptop to be taken home) and wireless connectivity, should allow the benefits to be extended beyond the child to their families and the wider community.
- **'text2teach', BridgEIT (Philippines)**<sup>82</sup>; is a collaboration between the International Youth Federation (IYF), Pearson, Nokia, and the UN Development Programme to use SMS technology to deliver education resources to rural classrooms. Teachers use a mobile phone to order from a lesson library. The lessons are then delivered by satellite and downloaded to a digital video recorder connected to a television in the classroom.
- The Indian state of Andhra Pradesh has invested in a number of educational initiatives that use digital technology to facilitate local development<sup>83</sup>. In 2003, Tata Consultancy Services (TCS) initiated a project in Andhra Pradesh to increase participants' level of literacy through e-learning – 80 learning centres were set up to allow 1,500 people to take part in computer-based literacy training simultaneously. From 1999, the state government also made computer literacy a compulsory element of teacher training diplomas, so that teachers can share their ICT skills with their pupils.

## Economic development

Examples of international digital inclusion initiatives related to economic development include:

- **Agriculture**: DFID's 2006 White Paper *'Eliminating world poverty: making governance work for the poor'* emphasises the fact that supporting vulnerable small-scale farmers is essential to the MDG of reducing poverty. Investment in ICTs to support agriculture has the potential to help reduce levels of both poverty and hunger<sup>84</sup>. Providing access to digital technologies, like mobile phones, can make trade much easier for small producers and act as an enabler for services such as microfinance. Examples include:
  - The Digital Green project in India (supported by Microsoft Research and the Green Foundation) is using laptops and DVD players to share agricultural techniques with farmers in rural areas of Karnataka, a southern state.<sup>85</sup>

<sup>80</sup> p16-18: 'Wireless Technology for Social Change: Trends in Mobile Use by NGOs', United Nations Foundation and Vodafone Group Foundation, 2008

<sup>81</sup> See <http://laptop.org>

<sup>82</sup> [www.shareideas.org/index.php/Bridgeit:\\_Using\\_Mobile\\_Technology\\_to\\_Improve\\_Educational\\_Opportunities](http://www.shareideas.org/index.php/Bridgeit:_Using_Mobile_Technology_to_Improve_Educational_Opportunities)

<sup>83</sup> p124-134 'Use of Information Technology for Poverty Reduction: A Case Study of Efforts in the Indian State of Andhra Pradesh' by Randeep Sudan, in *Reducing Poverty in Asia: Emerging Issues in Growth, Targeting, and Measurement* ed. Christopher M. Edmonds, Asian Development Bank, Edward Elgar Publishing, 2003

<sup>84</sup> p47, 'Eliminating world poverty: Making governance work for the poor', DFID White Paper, 2006

<sup>85</sup> See [www.digitalgreen.org/](http://www.digitalgreen.org/)

- Access to mobile phones (enabling producers to cut out the middle man) has reportedly increased profits for fishermen in Brazil, and Ghana, and for farmers in Sri Lanka<sup>86</sup>.
- **Mobile banking:** due to a lack of formal banking infrastructure, people in low-income countries tend to have limited access to banks and money-transfer services. Example projects include:
  - The Equity Bank in Kenya<sup>87</sup> has provided isolated communities with mobile banking facilities by equipping vans with laptops and other ICTs.
  - Celpay in DRC and Zambia<sup>88</sup> and the Tameer Microfinance Bank in Pakistan<sup>89</sup> have developed systems that enable clients to use their mobile phones to transfer money and pay bills. The potential uptake for this service is significant – according to a Bankable Frontier Associates survey of 7 African countries in 2007, between 7 and 41% of their “unbanked population” have access to a mobile phone<sup>90</sup>.
- **Employment:** ICT can play an important role in communicating employment opportunities. For example, the ‘mobile for good’ project in Kenya, supported by One World, has helped people find to work through text alerts on their mobile phones.<sup>91</sup>

While there are some excellent examples it should be emphasised that there are many challenges and barriers to ensuring these projects deliver the social benefit intended. This isn’t a simple matter of providing technology – people need the skills and confidence to use it effectively. Furthermore, there are obvious barriers around reliable access to electricity and the need, in some cases, to adapt the technologies to the environments in which they will be used.

## Opportunities

Digital inclusion has a potential contribution to make towards achieving the MDGs and supporting international development. There are two broad opportunities for the UK digital inclusion agenda:

- The potential to share digital inclusion projects and initiatives in the UK that are relevant to international development.
- Similarly, the potential to explore projects that are working in developing countries and assess their relevance to economic development activities in deprived areas of the UK.

We will explore these opportunities and the challenges further in a meeting of the Alliance for Digital Inclusion early next year.

Ref	Action	Lead	Timeframe
1	Alliance for Digital Inclusion meeting on digital inclusion and international development in Feb/Mar 09	ADI	Feb/Mar 09

<sup>86</sup> p99-100, ‘Technology Diffusion in the Developing World 2008’, Global Economic Prospects, World Bank, 2008

<sup>87</sup> p75, ‘Technology Diffusion in the Developing World 2008’, Global Economic Prospects, World Bank, 2008

<sup>88</sup> p75, ‘Technology Diffusion in the Developing World 2008’, Global Economic Prospects, World Bank, 2008

<sup>89</sup> p10, ‘Banking on Mobiles: Why, How, for Whom?’, Focus Note no. 48, June 2008 by Ignacio Mas and Kabir Kumar, CGAP

<sup>90</sup> p75, ‘Technology Diffusion in the Developing World 2008’, Global Economic Prospects, World Bank, 2008

<sup>91</sup> [tv.oneworld.net/article/view/147169/1/](http://tv.oneworld.net/article/view/147169/1/)

# Regulation

## Ofcom

Ofcom and communications regulation have important roles to play in achieving digital inclusion by promoting wide availability, take-up and effective use of communications services across the UK.

### Remit and current activities

Ofcom is the independent regulator, with statutory duties under the Communications Act 2003 that relate to digital inclusion and it is important to highlight its work in this annex of public sector activity. Ofcom's overarching duty is to further consumers' and citizens' interest, including specific duties to:

- secure the availability throughout the UK of a wide range of electronic communications, TV and radio services
- ensure that certain proportions of television programmes have subtitling, audio-description and sign language
- ensure the availability of equipment that is easy to use
- promote media literacy.

Ofcom's remit is UK-wide. Under the Communications Act, it has established advisory committees for each of the UK nations, advise on particular issues in England, Wales, Scotland and Northern Ireland. Citizens and consumers, including the nations, are also represented on the Ofcom Consumer Panel, which is appointed by Ofcom and which has a given role of advising Ofcom and others on communications issues in general, but which has a particular responsibility for advising on access and inclusion.

Some sections of society risk exclusion from the benefits of information and communications services. There are three main reasons for this:

- the service is not available in a particular geographic area
- there are barriers to the take-up of services
- there are barriers to the effective use of services.

To address these causes of digital exclusion, Ofcom is involved in a wide range of activities that promote availability, take-up and effective use of communications services. This is beyond its role of promoting effective competition, which has also significantly improved availability and take-up. Ofcom often works in partnership with a wide range of public, private and voluntary sector organisations, and promotes collaboration and sharing of best practice. This collaboration is important because in some areas Ofcom's non-competition powers are limited in relation to its duties.

Current activities to address the key barriers to digital inclusion are presented in the following table.

Barrier	Description
<b>Geographic availability</b>	<b>Fixed line:</b> Ofcom has implemented the fixed line and narrowband USO by designating BT and Kingston Communications as universal service providers and set specific universal service conditions to ensure that this obligation is met
	<b>Mobile voice:</b> Ofcom has included requirements in 3G mobile licences to ensure that providers roll out to at least 80 per cent of the population; is working to secure emergency roaming, and has been working with the Advisory Committee for Wales to identify and assess the significance of not spots.
	<b>Broadband:</b> Ofcom has developed a best practice guide for public sector broadband projects in conjunction with BERR. Ofcom is also considering what can be done to validate and monitor BT's broadband coverage.
	<b>Digital TV:</b> Ofcom announced coverage plans (accepted by the Government) that require three public service multiplexes to provide digital terrestrial television coverage to at least the same proportion of households (98.5 per cent).
	<b>Digital radio:</b> Ofcom's licensing programme for DAB will lead to a significant expansion in both national and local digital radio services over the next three years, as set out in Ofcom's statement in July 2006 on <i>The Future Licensing of DAB Digital Radio</i> .
<b>Take-up</b>	<p>Ofcom has used its powers to:</p> <ul style="list-style-type: none"> <li>• require BT to ensure that there are text relay services for hearing-impaired consumers and require all service providers to enable their customers to access it</li> <li>• ensure that BT and Kingston offer suitable tariffs for low-income consumers and to ensure that customers using the text-relay services only pay the cost of an equivalent standard fixed-line voice call</li> <li>• require the provision of suitable services for disabled people such as audio-description, sign language and subtitling, suitable Teletext services and electronic programme guides and a text-relay service.</li> </ul> <p>Ofcom has launched an awareness-raising campaign in relation to audio description services involving broadcasters and the RNIB.</p> <p>Ofcom has brought about changes to the delivery of signing based on research into users' needs.</p> <p>Ofcom has also undertaken research into barriers to take-up of different services, in particular by people with hearing and visibility impairments and those on low incomes.</p>

Barrier	Description
<b>Effective use</b>	<p>Ofcom's work to promote media literacy and provide people with the skills, knowledge and understanding of the media and communications technology that they need to benefit from the digital world is informed by its research base. This includes the Media Literacy Audits, which assess media literacy in the UK across the main digital platforms. The audits include examination of children's and adults' access to, usage of and attitudes to the Internet.</p> <p>Ofcom has supported a range of organisations and activities including:</p> <ul style="list-style-type: none"> <li>• developing (in conjunction with the Home Office) a BSI standard for Internet content filtering software to be launched in autumn 2008</li> <li>• supporting the Broadband Stakeholder Group in the development of content information good practice principles</li> <li>• supporting Adult Learners' Week, Get Safe Online, Silver Surfers' Day, and UK Online centres.</li> </ul> <p>Ofcom has published an analysis of research into ease-of-use issues with digital televisions and also with domestic communications equipment more generally. It held a conference on useability issues in June 2008 and has recently commissioned research into the feasibility of introducing labelling on equipment in order to help people identify which devices are easy to use.</p>

## Challenges

Ofcom's role and activities in promoting digital inclusion are governed by its statutory duties under the Communications Act 2003, which presents a number of challenges:

- Ofcom's powers are limited in some areas relative to its duties, challenging it to work closely with others in order to secure change.
- Ofcom needs to address potential conflicts in fulfilling its twin duties to further the interests of citizens and consumers. For example, promoting the availability throughout the UK of faster broadband access than is now commonly available might involve going beyond what the market would deliver. Such public intervention could be viewed as being in the interests of all citizens in that it would promote a more inclusive, interconnected society. It would also benefit consumers who would not otherwise be able to receive higher-speed broadband, such as those living in remote parts of the UK. However, in circumstances where uniform national pricing prevails, some individuals might have to pay more for existing services, but would benefit from being better able to participate in a society that is increasingly connected.
- Continued convergence and innovation in the sector is delivering more choice for citizens and increasing their expectations. While bringing many opportunities, this threatens to widen the gap between those citizens, who are able to realise the full potential of digital services to participate in the economy and society, and those that get left behind. In particular, the increasing range of services on offer, and the innovative ways they are used, raises the question of which services should be universally available to all members of society. With the continued deployment and interest in 3G mobile and next generation broadband networks, a significant and substantial debate on these questions seems inevitable. Consideration for the regulatory framework will inevitably play a part in this debate.



## Moving forward

Ofcom plans to publish its own vision on access and inclusion in early 2009, complemented by stakeholder events to facilitate discussion. This strategy will focus on the following elements:

- Maintaining a robust evidence base on current levels of availability, take-up and effective use of key services and the main barriers holding back further improvements.
- Ensuring that Ofcom makes full use of its existing powers.
- Continue to proactively engage with stakeholders to improve outcomes for citizens and consumers, recognising that Ofcom's duties are wider than its powers.
- Proactively shape the debate on the future regulatory framework in this area, ie the Universal Services Directive and relevant parts of the Communications Act.

The consultation will set out further details on Ofcom's future initiatives and what its priority areas will be.

Later in 2008, Ofcom will also publish a statement of priorities for its media literacy work over the next three years. In addition to its ongoing research program, it is also developing Media Literacy Matters, a public, searchable, web-based database of organisations and projects, which maps media literacy activity across the UK. The website will act as a tool to identify and co-ordinate projects and events and facilitate the sharing of best practice.

# Regional Improvement and Efficiency Partnerships

## National Improvement and Efficiency Strategy

The National Improvement and Efficiency Strategy commits central government to simplifying current improvement arrangements and making support easier to access. It places RIEPs at the heart of the new delivery support arrangements central to the delivery of the new performance framework and LAAs, enabling them to take a stronger lead on performance and improvement. The RIEPs have produced regional strategies which outline the support that will be available to councils and partnerships to deliver ambitious LAAs and value for money.

Digital inclusion will have a role to play in the NIES' four priority areas

- improving value for money and the three per cent efficiency target
- increasing innovative capacity
- community empowerment
- improving economic and neighbourhood renewal leadership capacity.

The key action for Regional Engagement is:

Ref	Action	Lead	Timeframe
1	Local authorities, through the RIEPs will be supported through a bank of Digital Inclusion and Data Sharing Advisors who will build on the success of the Neighbourhood Renewal Advisers but with a specific focus on supporting digital technology-led solutions and innovation among local authorities and Local Strategic Partnership partners to deliver better outcomes.	Communities and Local Government	Dec 08

**ISBN: 978-1-4098-0629-5**

ISBN 978-1-4098-0629-5



9 781409 806295