Communities
and Local Government

Community Perspectives on Digital Inclusion
Qualitative Research to Support the Development of the
Digital Inclusion Strategy
Research Report

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The findings in this report are those of the authors and do not necessarily represent those of the Department for Communities and Local Government

Contents

"When you go to a library and you can't find a book, you know you can ask the librarian for help. But I don't know who to ask for help with the computers"

Elderly woman, Nottingham

"I sold up my business in Manchester and moved to the Lake District to run a small business from the converted stable. It never crossed my mind that there would be such problems with broadband access"

Home business, NW England

"They tried to get me to do a computer course. It was all about how to learn to type and use Word. It wasn't really for people like me"

Homeless man, London

"As a blind person I never thought ipods and things like that would be for me. I thought they cost £200 and were for wealthy kids"

Blind woman, East London

"My grandchildren have shown me their computers and mobile phones. I couldn't use any of these things because everything is so small. I have arthritis and need big buttons and uncomplicated gadgets. Even my new TV handset is too complicated"

Elderly disabled man, North London

Chapter 1

Introduction

The quotes on the previous page illustrate how many members of our communities miss out on the benefits which digital technologies can offer. Lack of awareness, not knowing who to ask for help and advice, access, costs, misperceptions; all conspire to exclude large sections of our society from the world of the internet, digital media and other digital technologies.

This report summarises insights and experiences from community and third sector organisations involved in initiatives aimed at opening up digital technologies to excluded communities. The report is based on conversations with staff and service users, collected through one-to-one interviews and visits to specific initiatives, and on two workshops (Nottingham, 26 June 2008; London 30 June 2008). Additional evidence was provided by studies carried out by third sector organisations, Ofcom and UK Online Centres.

The objectives of this project were to:

1. identify community experiences of digital exclusion
2. identify a taxonomy of need/opportunity
3. outline pathways to digital inclusion for different communities
4. highlight messages and potential building blocks for the Digital Inclusion Strategy

It should be noted that the report is based on qualitative evidence, and does not include any quantitative profiles or segmentation. Third sector and community organisations (see Appendix A for list of participating organisations) were purposefully selected to represent communities most excluded from digital technologies.

Chapter 2

Community experiences of digital exclusion

Profiles of the experiences and needs of specific communities can be found in Appendix B. There are many common factors to people's experience of digital exclusion:

Inappropriate market provision	1. inequalities in **infrastructure**: no broadband access to homes; variability in provision of web-services at libraries and other public access points
	2. **design** inequalities: user interfaces which are unsuitable for older or disabled people; lack of clear and readable instructions; websites which do not comply with DDA and other usability standards
	3. **marketing** inequalities: marketing campaigns which over-promote high cost and most-up-to-date products aimed at high value customer segments create misconceptions about benefits and costs
Lack of confidence	4. digital technologies are perceived as youth-oriented or work-oriented; those without exposure over-estimate their **complexity** and subsequently underestimate their ability to master the use of devices
	5. an allied issue is the concern about the (perceived) high cost of devices and a perception that they are **fragile**; the fear of causing damage is a major barrier
	6. many excluded groups have **no familiarity** with screen-based devices (other than TV) and keyboards; linked to this is the multi-functionality of many digital devices; many excluded groups are more comfortable with single purpose devices
	7. without a clear picture of potential benefits, many excluded people are not **motivated** to invest time and effort in the exploration and mastery of digital technologies
Lack of skills	8. digital technologies often require a **broad range of skills**, and the ability to make connections between different channels/media and input devices (text, sound and vision; keyboard and mouse; symbols and language; etc.)
	9. even when people have already mastered one component skills (for example using a keyboard), they experience **frustration** when they cannot use a mouse or trackball device

Lack of support	10. many people are not connected into supporting organisations or networks; often they cannot even **identify support sources**, let alone access them
	11. support often is perceived as too focused on **IT skills** rather than life-skills; the lack of user-focus can create a further alienating effect
	12. for many excluded groups, support needs to be more pro-active and **outreaching**; it needs to come to the potential user, rather than wait for them to act

Examples of barriers and concerns include the following:

Older people organisations

"the shift to more online services has caused problems for many of the most needy groups. This has been made worse by the fact that the frontline staff who are still available often are less skilled now. So the most vulnerable people are being left behind; you need to ensure they are empowered to access the services"

"increasingly across all sectors, services are being delivered exclusively through ICT with the consequence that many older people are being excluded from these services because of their reliance on technology"

"technology companies need to do more around accessibility from end-to-end; eg packaging, installing, loading software; registering, as well as design."

Organisations working with disabled people

"the design of many interfaces is completely inappropriate for people with even minor disabilities like arthritis. The lay-out of many devices assumes you have the nimble fingers and eyesight of 16 year olds"

"many of our users do not think that technologies are for them; they think ipods are for kids. But when we sourced MP3 players in Europe for below Euro 30 they [blind clients] absolutely loved them"

Organisations working with people with complex needs (homeless, drug users, mental health)

"the challenge is how do you get people through doors; the people we deal with have complex issues and they can't be silo-ed, so we have to engage with people about all their issues"

Rural organisations

"digital inclusion these days has to include good access to the internet with decent bandwidth; it should be like access to the telephone, there should be a universal access obligation. This is a big issue in rural areas, as many people in rural areas use the internet as in urban areas, they often are reliant on poor telephone connections"

"when you have good broadband access [in rural areas] you can look after yourself better because you can use NHS Direct; you don't have to have to have a House of Fraser down the road and you can get your stuff over the internet"

"it [fast broadband] also matters to ordinary people – think of BBC i-player – you can't really use it without fast broadband."

Organisations working with low income households

"many of our clients [lone parents] only use mobile phones, but this makes it very expensive for them to call services and advice lines since they often do not recognise freephone numbers"

"the shift to online services and call centres has created greater problems for people with complex needs. Frontline staff are now deskilled and, for people with complex cases, there is no way you can put on the internet how to get access to complicated benefits systems and entitlements. So there will always be a need for face-to-face services"

"lack of digital technology skills will become the new illiteracy stigma: while it is not too bad at the moment the danger of being left behind will become deeper over time. People who won't have these skills in the future will be looked down on and excluded."

Black and minority ethnic organisations

"one of the barriers faced by some ethnic minority women is that they are not encouraged to leave the home which can then leave them both socially isolated and digitally excluded if they are not able to access the internet at home. Other reasons why some groups of ethnic minority women are not engaged with digital technology include language barriers, culture and poverty. As a result they are a seriously hard to reach group for the digital inclusion strategy"

Small and medium enterprises (SMEs)

"business profiles in rural areas have changed dramatically from farming related businesses to all sorts of SMEs who need mobile phones, internet access and other technologies; fast broadband access is essential for SMEs in rural areas"

"small business could benefit greatly from cloud computing which avoids big up-front investments in software; but this would mean stable broadband with good download and upload speed"

"the way to really help small businesses is to engage them around digital technologies and web-based services and networks at the key stages of business formation – start-up; VAT registration; marketing plans, etc. If you don't get them at those milestones, they will not reap the benefits."

Chapter 3

A taxonomy of opportunity

The successful use of digital technologies by the organisations involved in this study produces a number of profound benefits of direct engagement:

*"In our experience, the use of digital technologies can produce four **types of benefit**:*

1) developing social and employment skills: gaining qualification, keeping in touch

2) building confidence and ambition: gaining a sense of achievement

3) practical tools: job searching, shopping online

4) independence: being able to do more yourself even if you face physical or other barriers"

Organisation working with low-income groups

The common view is that digital technologies are now so embedded in society, that not using them causes deep inequalities:

"As more and more people move to digital technologies for essential activities, fun activities, private activities, if you are not part of this, you fall behind more and more."

Organisation working with people with learning disabilities

The experience of community organisations highlights that it is not helpful to separate out different functional domains of technologies; instead, they need to be presented to excluded communities as enablers of a broader range of activities:

"Government made the mistake of typecasting people's needs, like they need to be able to find out about jobs, or need to get IT skills, and people need to get access to computers. But they never recognised that the reasons why people did not take part was because of lack of confidence, lack of interest, and lack of meaningful reasons to engage with technologies"

Organisation working with low income groups

"There are benefits (from digital technologies) for lone parents; often they care for very young children or children with disabilities, so it's a problem for them to leave the house and finding childcare is difficult. And many lone parents are quite isolated, so they would benefit from social networking sites, and access to services via the internet, and forums where they can talk to people in similar situations"

Organisation working with lone parents

A taxonomy of opportunity:

A common message from the interviews is the importance of digital technologies to the empowerment of individuals and communities:

1. **strengthening social capital**: Technologies such as social networking tools; tools for exchanges/acts of reciprocity, aids to overcome isolation or disability etc.

2. **strengthening capacity**: Technologies to gain information, acquire skills, gain access to services, advice about services, etc

In addition, there are specific expectations of public services' use of digital technologies

3. **improved benefits from public services**: web-based transactions, more extensive use of digital adaptive technologies, better use of data and data sharing, user-led design and a wider, digitally-enabled work and organisational culture will improve service delivery, customer experience, and user and community satisfaction

4. at the same time, public services will have to be able to offer highly personal services (face-to-face and telephone) for people with **complex needs**

The workshops with community organisations also suggested that a Digital Inclusion Strategy should focus on "big groups" of needs, such as elderly people, families, people with long-term health needs and disabilities, and people in distinct geographical boundaries such as council tenants in a housing estate. Special needs groups should be targeted through local solutions.

Chapter 4

Pathways to digital inclusion

The participants in the interviews and workshops (see Appendix A) represented a very broad range of digital engagement and service delivery initiatives. Community and third sector organisations highlight the importance of a community development approach to digital technologies. For some communities, the motivational and competence/confidence barriers are so great, that community based outreach activities are essential to the development of digital inclusion. Outreach may be less essential in situations where there is an existing 'presenting need'. For example, for some groups – such as people with long-term medical conditions – there is a need to obtain information about their treatment; for some low-income communities, there is a need to find out about benefits.

A number of projects were highlighted as useful learning examples:

The Learning Zone and Skylight Project

The homeless charity Crisis has recently adopted a range of digital technologies to help empower users of its services. There are two main programmes which it has developed: the Learning Zone and Skylight.

The Learning Zone offers a series of accredited IT related courses. The courses on offer vary from 'beginners IT', CLAiT (a package of three IT qualifications) through to their highest qualification – the ECDL (European Computer Driving Licence). These are structured courses which participants attend over a number of weeks. The courses are free and once people have completed one course, they are welcome to take another. All courses are under 16 hours, so they will not affect people's entitlement to benefits. Crisis also contributes towards the cost of travel to and from the Learning Zone.

Skylight offers a less structured approach to using IT. People are able to come in to Crisis in London or Newcastle and use the IT facilities at various times during the week.

The emphasis of the Learning Zone and Skylight is to show people the practical benefits of IT, particularly the internet and email rather than the more Office product based approach that many training courses focus on. Crisis feel that this approach helps meet the diverse needs of their users, from just keeping in touch with family, friends and Crisis, to looking for accommodation and jobs, through to acquiring recognised qualifications.

Slivers of Time Working

Slivers-of-Time Working[1] is an online marketplace where people can sell their spare hours on their terms to a range of employers. The aim is to create a scheme whereby people receive immediate cash and employers have access to a wide range of skills from a very flexible, motivated, pool of top-up workers who can be booked at short notice.

If someone is interested in being part of this marketplace they register on the Slivers of Time Working website. Often, these are people who need to find employment that fits around other commitments, such as childcare, existing partial employment, caring, attending job interviews, starting a business, or medical issues.

People seeking work run an online diary of the hours each particular day they are available for work. They might put something in their diary such as; "It's now 5.00pm, I want to work between 6.00pm and 9.00pm this evening". They also define the types of bookings they will do, how far they are prepared to travel and their hourly rate.

The employers are organisations wanting top-up workers at irregular times, such as local authorities, the NHS, caterers, retailers, contact centres, and care providers.

Employers input their needs, for example "three people for two hours at lunchtime today". They are able to look at the details of everyone who wants to do that specific booking ranked by reliability and hourly rate. They can then instantly make the decision about which person's time to buy.

Agencies operate marketplaces for Slivers-of-Time. They vet the participants and bring them into the market. Their own payrolling/invoicing systems take over once a timesheet for a booking is completed.

Switched on Communities

This is a project run by AbilityNet with the support of DSGi (owners of PC World and Currys.digital). The project has four charity partner organisations: Age Concern; the Hope Foundation; Keyring; Leicester Centre for Integrated Living. It also involves a network of community partner organisations across 8 different parts of the UK. AbilityNet provides partners with training and resources so that they can support community and voluntary sector IT provision in their region. It is a three year programme.

Through Switched On Communities they aim to impact the lives of thousands of disabled people, bringing within easy reach everyday tasks such as banking, shopping, communicating, education, volunteering and work opportunities.

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[1] www.sliversoftime.com

The programme provides organisations with:

- training showing how to adapt computers to meet the needs of disabled users
- resources that offer alternatives to using a keyboard and mouse
- software to support struggling readers and CD-Roms with further information
- help and support to identify the access needs of learners – including the use of an online assessment tool

AbilityNet aims to help disabled people unlock their potential and start a course of study or even get a job for the first time. They look to adapt technology to change lives.

Clacton Sunshine Project

Help the Aged set up the Sunshine Project to increase opportunities for those living in care homes to make new friends. Two schemes have been taking place in care homes in the East of England: a befriending scheme and a computer training scheme. The purpose of both is to increase social contacts, reduce isolation and improve quality of life. The computer training scheme introduces people to information technology and to using email as a means of communicating with family and friends.

An interim evaluation by a research team at Essex University was funded in partnership with the local PCT, which was interested in how the project might lessen the strain on its services. More specifically, the evaluation looked at whether the experience of the IT initiative is perceived to be beneficial by residents in care homes taking part in the 'Sunshine Project.'

The findings from the small pilot evaluation reiterated the importance of non-family social interactions, previously documented by studies which indicate that social relationships and activity per se appear to confer health benefits through psycho-social pathways. Health and social care agencies need to recognise the non-clinical aspects of ageing and work together to maximise well-being in all areas of daily life by whatever means they have at their disposal.

Newham Advanced Telecare (NeAT)

Newham Homes (an ALMO[2]) has a system called Newham Advanced Telecare (NeAT) which involves sensors being installed in vulnerable peoples' homes. The objective of the programme is to help people to live independently, in control, and with dignity by helping manage the risks of daily living.

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[2]   Arms length management organisation

The sensors monitor and detect changes as they occur and alert the person before a situation gets out of control. If problems are detected these sensors automatically send alerts to a control centre if problems. This means a call for help can still be triggered even if a person have fallen and can't physically reach a cord or button, or if they are too distressed to do so.

NeAT has different types of sensor available to residents. The basic version can send an alert if:

- smoke is detected

- abnormal heat is detected in the kitchen

- the sink or bath has overflowed

More advanced systems can send an alert if something unusual happens, such as the gas having been left on, or the water supply not having been used for a prolonged period.

NeAT is the largest assistive technology programme in England and one of the largest in Europe, with some 2,500 users.

Adaptive digital technologies such as screen reader technologies; speech software for blind users of mobile phones; speech enabled MP3 players; audio descriptions of TV programme available on digital TV; GPS mobility support, wifi-buddies and the like were emphasised by those with greater experience of working with disabled people. There were particular concerns about the readiness of the private sector to develop and design technology in ways in which disabled, and to a large extent elderly users can gain access to these technologies.

When talking about their own experiences of working on digital engagement initiatives, participants were clear that successful engagement extends beyond focused, functional skills or service domains:

> *"technology allows you to make learning more like play; we shouldn't separate learning from the rest of life. Technology can bring back learning to any stage in your life"*
>
> Organisation working with older people

> *"one of the things we found with young people breaking free from drug dependency is that we need daily contact. Having every one of your clients in the building every day for an hour is very hard, but the technology enables us to have daily contact by text and email, which creates a significant benefit. It also means we can organise video-conferencing with housing or social services, or translation services, but I don't see many social workers working that way. We also need to make more use of voice-over internet for people who cannot read for one reason or another, so technology also can open doors to people with all sorts of disabilities"*
>
> Organisation working with homeless people

"the kind of kids we are dealing with are switched off from learning. New technology is FUN; the new technology gives you access to a different kind of learning. We use music sequencing software and found that young homeless and drug users were keen to explore software to make music; some then moved onto an accredited audio course; some learned Word to be able to write lyrics; and some have gone onto apprenticeships in the music industry; we've also released tracks via the internet. We then started thinking about YouTube and video and now have moved onto movie editing. The benefits of these technologies is that they are fun and flexible; they are able to engage disaffected and drug-dependent youth; at the same time structures are low-key"

Organisation working with young drug users

"outreach is getting to other people's networks so you might do it in places where people gather anyway for some kind of social activity; it is much better to do this through a respected member of the community, and although you may provide all the infrastructure and all the content, if the invitation and the enthusiasm to come to a meeting comes from within the community it is much more powerful"

Organisation working with black and minority ethnic communities

The insights from community organisations point to a more complex pathway to digital engagement requiring outreach, a process of engagement and exploration which enables people to see the possibilities and direct benefits of digital technologies; an initial confidence boost which enables people to conceive of their mastery of technologies, and subsequent deeper skills development.

Pathway to Digital Inclusion
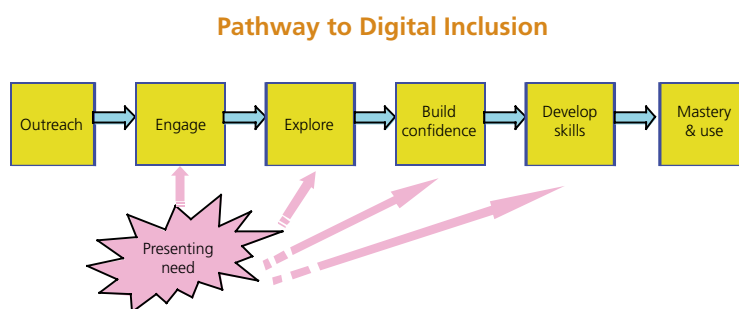
Examples of individual pathway journeys are illustrated below:

Homeless pathway	Terry is a homeless person who is now in temporary accommodation. He is fairly reclusive in his nature and finds it difficult to cope with the wider world at times. His key worker from the homelessness charity gained his trust and introduced him to a range of IT training that could help him. Terry followed up on this and began to use the internet and email. Through this he made contact with his family in Ireland and tracked down extended family in the US. Being able to get in touch with people and organisations helped his confidence to such an extent that he even visited his American family. Now, even when he has gets back into a more reclusive lifestyle he is able to keep in contact with the charity and others to let them know that he is okay.
Black and minority ethnic pathway	Sulima came to Britain as a refugee from the Horn of Africa in the late1990s. She is still living in what would be classed as a disadvantaged environment and has watched her children grow up using computers at school. She was terrified of computers. A local women's group encouraged her to attend adult education classes and in those classes she was introduced to computers as a means of helping her learn English. After getting over her initial fear, it was a fantastic experience for her; she was so excited to see herself writing English in type. The impact of Sulima's experience had a noticeable ripple effect as she told her friends about how it had made her feel more confident and encouraged others to try learning about the use of computers and the internet.
Elderly pathway	Jill is an elderly person who is housebound and in contact with a care organisation who support housebound people in rural areas. One of the organisation's initiatives was to visit people like Jill in their homes and help them do their grocery shopping online. Jill got used to the online system and when her care worker turned up to take her shopping, Jill told her "we're not going to Sainsbury's anymore, we're going to Tesco's", as that was where she did her online shopping.
Rural pathway	Sharon lives in a rural area and is a single mother with three children. One day she was invited into a mobile bus parked outside her children's school. Ruralnet used to run a basic ICT and employment training programme for women living in rural areas who had not worked before. In order to reach these women, Ruralnet took the facility to them. A bus was equipped to be a mobile ICT lab and visited rural schools. Sharon started to use the mobile unit after dropping off her kids and started IT training in the morning and work preparation training in the afternoon.

Young person's pathway	Matt is in his early 20s and lives in south east London. As a teenager he says he was a "scallywag" constantly in trouble and drinking to excess. The situation got so bad at home that his parents started locking some of the internal doors as they felt they could no longer trust him. He said he was heading for prison or living on the street. A DJ friend of his said that he should get in touch with a local youth awareness project. He respected his friend's advice and visited the project. The project introduced him to IT through a music studio programme. When he was younger Matthew had been a keen musician. The software rekindled this interest. He took a number of courses to learn the software. After a while he was asked if he wanted to help other users of the project learn the software. He agreed to do this and started to get involved in other programmes offered by the project, such as drugs and sexual health advice. He is now an employee at the project and has an increasingly successful career as a musician.

A successful digital engagement process needs to connect communities and people with different needs to local networks, services and organisations which can provide access to digital technologies and which can reach out to engage and empower members of these communities. Local provision therefore needs to be mapped and assessed in terms of:

1) the extent to which an organisation or network provides access to digital technologies (is enabled by digital technologies)

2) the organisation's or network's ability to reach out and empower people to use digital technologies (can empower)

Digital Technology Community Networks

Digitally enabled and empowering
- Community network, organisation, or service with range of digital technologies
- With resources and skills to provide outreach/community development

Digitally enabled
- Community network, organisation, or service with range of digital technologies
- Access/service point but no outreach

Not digitally enabled
- Community network, organisation, or service without digital technologies

Isolated
- Individuals with no access to community networks, organisations or services

Chapter 5

The wider benefits of digital inclusion

Discussions with community and third sector bodies, and with members of socially excluded communities identified a wide range of direct and indirect benefits for each community group. The examples of successful engagement with digital technologies demonstrated that these benefits are attainable on a much larger scale, often as indirect benefits generated through service transformation. Earlier sections of this report have highlighted the pathways to more digital engagement, and the wider changes and improvements identified by community and third sector bodies and their clients.

The matrix below focuses on the wider direct and indirect benefits which digital technologies provide for socially excluded communities, and the essential building blocks for the delivery of each particular benefit. This section therefore supplements the pathway solutions outlined in earlier sections.

Benefit Area:	Needs	Digital building blocks
1. Information about public services	Excluded communities have significant information needs, in particular in relation to health, social care, and housing. For many, information needs about finances also feature highly. Lack of access to relevant information deprives people of knowledge about available services, which in turn can increase risks and future costs, or can lead to inappropriate use of services (eg medicines management). Information needs also include evaluative information, which gives service users assessments of the quality of service, entitlements, redress, and alternatives by providers directly and by third parties. Some excluded communities would benefit from adaptive digital technologies, but lack of information prevents potential uptake.	Professionals and advocates working with excluded people can be more effective if they can access appropriate information online, and either signpost people to these sources, or print tailored selections. In that process, clients can be introduced to digital technologies and made more comfortable with their characteristics, value and use. The pathway model shows how excluded client groups can engage with digital media and devices. **Essential building blocks:** • information portals, accessible to professionals, intermediaries, and service users • public sector workforce support and skills to deliver digital information • organisational investment in technology to aid use and familiarisation (eg PC set-up where professional and client can look at screens together; printers; broadband access) • collaboration with third sector on user-led design, content generation, and promotion of digital information • cross-sector support and promotion of technologies • wider use of user-created content and feedback (incl. Web 2.0)

Benefit Area:	Needs	Digital building blocks
2. Choice of public services	As choice over public service providers grows, those who are able to exercise this choice will benefit more than those who cannot. The exercising of choice requires user-focused evidence about options, sign-posting to appropriate information sources, and pathways for enquiry and engagement (eg booking). Private sector decision support tools such as gocompareXYZ.com or XYZsupermarket.com, together with Web 2.0 mapping and tagging technologies make the location of outlets simple, but in the public sector, information seeking and location finding require significant user investment and encourage habitual choices and behaviours.	Digital technologies can provide evidence to inform choice and direct communication channels which facilitate choices over public services. For example, online benchmarking data, virtual tours, on-line diaries and booking systems enable people to rapidly make choices. Library systems with on-line search and location services, reservations and renewals provide more efficient selection, and travel costs and fines. Online transport planners and booking services reduce costs, wasted time and risk. **Essential building blocks:** • "choice" portals which provide one-stop overviews and connections to service providers • upgrading of design and content of choice related tools • direct promotion and promotion through key professions of choice tools and portals

Benefit Area:	Needs	Digital building blocks
3. Access to public services	Many members of excluded communities show a greater reliance on face-to-face channels. Often this is habitual and can involve significant investments of time and effort on their part; for some vulnerable people it can involve greater elements of risk. Service transformation has placed more emphasis on online access from which many of our target communities are excluded. The costs of using F2F channels are born by public services, third sector organisations (who often have to substitute advice previously provided by public services), and service users (because they have to work harder to find it; or because they give up and potentially increase risks and future costs). Adaptive technologies in the home, and at the point of contact, also play a major role in offering easier access for people with disabilities.	Many of the necessary building blocks have been described in the above rows; additional elements are: **Essential building blocks:** • better joining up and sharing of data and more sophisticated analysis to anticipate and understand current and emerging service needs and usage patterns, and opportunities to improve use of digital technologies • the transformation of customer insight into new skills and competencies for frontline staff

Benefit Area:	Needs	Digital building blocks
4. Information about private services	The challenges in understanding, selecting and using public services equally apply to the consumption of private goods and services. Whilst basic product descriptions are less of a problem (eg they often form part of the packaging or product features are self-evident), problems for excluded groups are more profound when they wish to exercise choice.	The private sector generally has used digital media very effectively to describe and promote the products and services provided. In most instances, there are useful levels of information available, and in some cases, private services offer high levels of visual imagery, virtual tours etc. The most significant improvements identified by communities focused on the need to produce information in formats which are accessible to older people or those with impairments. **Essential building blocks:** • information materials need to be user-tested with target communities • DDA compliance needs to be promoted more actively, and failure to comply with the law needs to be challenged • product information needs to be improved to communicate the relevance and benefits of digital technologies to excluded communities (eg MP3 players as "talking book" tool rather than youth-music device) • more digital products need to offer interfaces which are usable by older people or those with disabilities

Benefit Area:	Needs	Digital building blocks
5. Choice of private services	Excluded communities often lack awareness of the range of options, and often are forced to purchase at a higher cost, or are unaware of suitable products. Many of the participants commented on problems with finding out about low-cost financial services, better value on-line outlets, and the wider raft of information about the appropriateness, quality and value for money of products or services. One participant describe this as "shopping on a tiny island of choice".	The key to widening choice is better access to online outlets. This can only be achieved to extended web-access directly, or through public access points. Better choice will ensure that excluded communities can benefit from better value, and more appropriate offers. Access to price comparators (for example price comparison sites for gas and electricity suppliers), consumer protection sites, and online comments from previous customers have greatly increased consumer choice and power. **Essential building blocks:** • the promotion of wider online access and usage • information activities which build awareness and confidence in online information use and transactions
6. Access to private services	Key access issues have already been described above: lack of online access and trust in online transactions, unfamiliarity with information searching and comparisons, and lower credit or bank card ownership restrict access. Many digital technologies also are not branded and marketed to appeal to socially excluded groups.	see above

Benefit Area:	Needs	Digital building blocks
7. Efficiency and value for money	The above sections have highlighted that exclusion from digital technologies can increase the cost of transactions for providers and users, and can prevent excluded communities from obtaining the best deal or most appropriate product or service.	For public service providers, the issues of higher cost transactions, inappropriate use, or failure to access service raise immediate and long-term cost-benefit questions. **Essential building blocks:** - there is no clear "investment" model which sets out to what extent earlier investments in the promotion of digital technologies for excluded communities will generate long-term savings - a cost-benefit model would allow service providers to consider individualised digital budgets to be targeted at promoting digital technologies and their benefits
8. Voice	Online communications have opened up rapid channels for customers and communities to convey their experiences and views to service providers, media, retailers, or social networks. Many organisations actively promote online voice, and digital technologies offer channels which enable people with disabilities to interact as equals (using voice or video channels; screen readers; etc.) The ability of digital media to push and pull information and dialogue and to facilitate horizontal and vertical communications offer citizens unparalleled voice on any imaginable issue. But many of the communities we focused on lack the understanding, confidence and opportunity to use their voice through these media.	As we have outlined in earlier sections, there a numerous examples of digital technologies connecting socially excluded communities and enabling them to convey their experiences, needs, and expectations. **Essential building blocks:** - an extensive outreach programme, supported by volunteers and mentors - promotion of local access points and community hubs - public service facilities to "open up" as digital access points

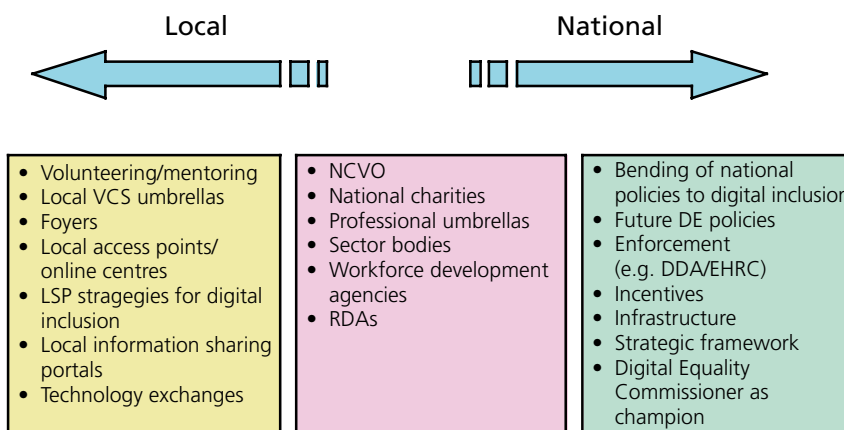| Benefit Area:	Needs	Digital building blocks
9. Social activities	Social isolation is one of the common experiences of many members of excluded communities. Online social networks, email and other online communications tools (as well as adaptive digital technologies for those with disabilities) offer opportunities for interactions with families, friends, and communities of interest.	Third sector organisations are well placed to introduce excluded communities to social networking. There also needs to be a wider recognition among public services that digital networking strengthens social capital and community resilience. **Essential building blocks:** • integrate digital networking in community empowerment and development activities • use existing public sector and third sector portals to promote and facilitate networking and voice
10. Fulfilment and identify	All of the above benefits will make the lives of excluded communities more fulfilling. A related issue is that of strengthening individual and group identities (and resilience) through digital technologies.	The building blocks needed are already described above. It is important to recognise that fulfilment and identify make strong individuals and communities, and that digital technologies should not be earmarked for specific purposes only. Excluded communities will rely on intermediaries to help them understand, engage, and explore digital technologies. This must allow for a broad range of uses, and avoid undue restrictions.

Chapter 6

Strategic building blocks

The workshops in Nottingham and London explored sector views on and expectations of a Digital Inclusion Strategy. Key sector expectations are:

1. the strategy needs to be about people and how their lives will benefit from digital technologies (rather than about the promotion of technology and technology skills)

2. it needs to be inspiring and aspirational; success factors need to focus on life skills, confidence and empowerment, and the wider enhancement of quality of life, as well as key social outcomes such as improved health etc.

3. there should be a national promotional campaign to inspire people and organisations and to stimulate demand

4. it needs a strong champion who can influence policy, public service delivery, private sector provision, and third sector support; at one of the workshops, the notion of a "Commissioner for Digital Equality" was proposed

5. the strategy needs to connect up different policy areas and ensure that digital inclusion is within the mainstream of all policy making

6. it should not be prescriptive about implementation and instead encourage regional and local solutions; local delivery is seen as critical for the successful engagement of excluded communities

7. the strategy needs to support innovation and risk taking, but not seek to regulate it; an innovation fund and a national learning exchange are needed, resourced from and supported by contributions from government, the third sector and the private sector

8. local funding processes should combine national and regional/local funding; could there be individualised budgets?

9. regional bodies (such as Regional Improvements and Efficiency Partnerships (RIEPs) or third sector umbrella bodies) and Local Service Providers (LSPs) need to act as local co-ordinators and enablers, including brokers and providers of funding

10. local public services need to demonstrate commitments to digital empowerment through better information sharing, needs analysis and targeting, workforce development, and strategic leadership

11. outreach is a vital element for the delivery of the digital inclusion strategy; third sector organisations are best places to engage excluded groups and to provide innovative approaches; funders need to recognise the elements of outreach and innovation and need to be willing to fund them

12. evidence shows that digital technologies provide opportunities for new forms of volunteering, ranging from mentoring to training, and from home support to online shopping; there needs to be a national promotion and local campaigning to build up a cohort of digital inclusion volunteers; this will include opportunities to encourage children to engage in "reverse mentoring" of their parents and grandparents

13. local public services need to equip themselves and their workforces to be digitally enabled and empowering; front-line staff are one of the key contact points for many excluded communities and therefore need to be motivated and equipped to champion digital technologies as part of their relationships with excluded groups

14. the strategy needs to create clear delivery expectations of local public services and needs to hold them to account on joining up, promoting and implementing (or supporting the implementation of initiatives)

15. there needs to be a stronger influence on the private sector to address current market failures, including user-led design of the end-to-end experience of identifying, purchasing, installing and using digital technologies, the promotion of low price options and universal access

16. there is strong support for making broadband access a universal service obligation

Strategic Building Blocks

Local ← → National

- Volunteering/mentoring
- Local VCS umbrellas
- Foyers
- Local access points/ online centres
- LSP stragegies for digital inclusion
- Local information sharing portals
- Technology exchanges

- NCVO
- National charities
- Professional umbrellas
- Sector bodies
- Workforce development agencies
- RDAs

- Bending of national policies to digital inclusion
- Future DE policies
- Enforcement (e.g. DDA/EHRC)
- Incentives
- Infrastructure
- Strategic framework
- Digital Equality Commissioner as champion

Appendix A

Participants

Interviewee	Position	Organisation
Alan Clarke	Associate Director of ICT and Learning	National Institute of Adult Continuing Education (NIACE)
Allan Williams	Head of Policy and Research	Action with Communities in Rural England (ACRE)
Colin Cripps		In-volve
David Banes	Director of Development	AbilityNet
David Floyd		Social Spider
David Sinclair	Head of Policy	Help the Aged
Gary Copitch		DES
Kirsty Marshall	Head of Direct Services	One Parent Families/ Gingerbread
Leonie Vlachos	Manager Digital Inclusion	Age Concern
Liz Atkins		NCVO
Margaret Phillips	Head of Learning and Skills	Crisis
Nancy Johnstone	Technology and Communications Manager	Age Concern
Neil Daly		Alliance for Enterprise
Paul Webster		NAVCA
Sarah Hamilton-Fairley	Chief Executive	Starthere
Simon Berry	Chief Executive	Ruralnet UK
Simon Hills		Starthere
Chris White	Support Officer	Nottingham Royal Society for the Blind
Cila Lamerton		Newlink, Ancaster Day Centre
David Banes	Director of Development	Ability Net
Gill Davies	CEO	Radford Care Group
Gillian Bates	Communications Manager	City Arts
Ian Everall	Knowledge Society Director	Black Country Consortium

Interviewee	Position	Organisation
Ian Godsmark	IT Trainer	Nottingham Royal Society for the Blind
James Wallbank	Chief Executive	Access Space Network Ltd
Jo Fisher	Regional Manager	UK Online Centres
Karen Roberts	Director of Operations	Wilf Ward Family Trust
Liz Jones	Programmes Manager	One Nottingham
Lynn Williams	Workforce Development	Enable NVAC
Mark Lynam	DC10 Digital Challenge Network	Ashford District Council
Michael Rogers		Mansfield WEA, Pleasley Landmark Centre
Mick Taylor		Mdonkin Itex, The Learning Lounge
Neil Daly	Business Development Officer	Alliance for Enterprise
Norman Perrin	Chief Executive	Computers for South Yorkshire
Peter Foley	Professor of Electronic Commerce	De Montfort University
Peter Whitehouse	SNB Programme Manager	Nottingham City Council
Sally-Anne McIntyre	Senior Community Librarian	Education & Learning Support
Stephen Gowland	DC10 Digital Challenge Network	Sunderland Council
Steve Baker	Development Officer	Peoples Network
Toni Franck		Library & Learning Service, Lincolnshire County Council
Alex Goodby	IT Training Coordinator	Crisis
Alun Burge	Director of Communications @ One Project	Welsh Assembly Government
Ann Inglis		Barnet Disability Action, Borough of Barnet
Bert Provan	Regeneration Performance and Digital Inclusion Division	CLG
Debbie Ross	e-Neighbourhoods Programme Manager	Sunderland Council
Dylan Martlew		Knowle West Media Centre

Interviewee	Position	Organisation
Gary Copitch	Director	Manchester Community Information Network
Heike Schuster-James	Operations Manager	Digital Development & Communities Service Birmingham
Helen Milner	Managing Director	UK Online Centres
Kate Warsap		LEGI
Leonie Vlachos		Age Concern
Lisa Bailey	DC10 Digital Challenge Network	Connect MK, Milton Keynes Council
Maggie Parker	Active Ageing Team Manager	Age Concern
Nancy Johnston		Age Concern
Paul Webster	Regional ICT Infrastructure, Support and Development	NAVCA
Soloman Ebyo		
Tom Gaskin	DC10 Digital Challenge Network	Norfolk County Council
Vin Sumner	Managing Director	Clicks and Links Ltd

Appendix B

Community Profiles

Older people

Characteristics
Older people tend to fit one or more of the following characteristics:

- low income: 1 in 5 older people live in poverty

- poor health

- more likely to be disabled than younger people

- loneliness: 1 in 10 older people say they are lonely. About half say their TV is their main source of company

- limited familiarity with digital technology

Current use of digital technology
Many older people have low usage of digital technology. Older people often find the complexity and design of many modern devices challenging and often persist in using older technologies because of its familiarity and simpler design and lay-out.

A number of third sector organisations raised concerns about the shift to online services (or call-centres with online Customer Relationship Management (CRM) and advice sources): because of their lower levels of digital take-up older people are often less able to access these services. In the case of the move towards call centres as main service access points, the quality of the advice available was regarded as inadequate for more complex social, housing or health issues.

Barriers and enablers
Barriers for older people to using digital technology include:
- Usability: much digital technology is designed by young people with young people in mind. This can result in a usability barrier for older people. Also, some things many take for granted now are just not logical for older people. For example, why do you need to click the 'start' button on a PC to access the 'shut down' button?

- Accessibility: many websites are not user friendly for older people. The text is often too small and the design too complicated

- Entrenched views: many older people feel that technology is not for them. They have got by without it up until now so why should they need it?

- Information gap: many older people don't know where to look for information about how to get a PC, set it up and get an internet account

- Perceptions: there is a common view that PCs are more expensive than they actually are

- Confidence: many older people do have mobile phones and PCs (both often cast-offs from younger members of the family) but they don't use them – they need guidance and support to make the first steps

Enablers are:
- Plain language and practical benefits: demonstrating the benefits to people and avoiding the use of technical language

- Outreach: as many people have mobility problems one solution is to take technology to them and provide hands-on advice and training

Pathways to using IT

The approach of charities such as Age Concern and Help the Aged to digital inclusion involves using outreach programmes. An example of this is the Help the Aged Sunshine Project. This involves taking ICT into care homes and providing training.

Sometimes organisations do not directly provide services but commission them. For example, Help the Aged give small grants to local organisations to deliver ICT training.

Age Concern and Help the Aged set up a company called Digital Outreach to provide support for older people preparing them for the digital switchover. The company also involves Community Service Volunteers (CSV) and CEL and was commissioned by Digital UK to engage with the voluntary sector in supporting vulnerable people through the process of switch over from analogue to digital television.

A number of forms of digital technology are of benefit to this group including telecare, internet, digital television and mobile phones. Not all the technologies need to be hi-tech

Age Concern use Wii game consoles to promote exercise with older people while having fun. This has health benefits. They have also used life stories and genealogy as issues to demonstrate the usefulness of PCs and the internet.

Long term benefits and opportunities

There are a number of needs which the direct use of digital technology can deliver for this group:

- Inclusion: people who are housebound can communicate with organisations such as Help the Aged and Age Concern as well as friends and family. It should be noted though that there some people feel that technology further embeds social isolation

- Information access: carry out practical tasks – banking, booking holidays. And, for those in poverty help to access information, for example, to claim benefits

- Health benefits: for example using Wii console encourages physical exercise while having fun. Telecare can routinely monitor health over time

- Alarm systems: telecare can alert service providers when someone needs urgent help. Newham has a system where set top boxes are put in people's homes. These ask people questions; for example, do you feel out of breath? It also monitors blood pressures and if problems are flagged up it sends information to a community nurse

- Tackling ageism: 7 out of 10 people over the age of 65 do not use the internet so can have problems searching for jobs if they are still in the job market

Digital technology produces benefits through data sharing and analysis. For Age Concern it helps them to identify patterns of need better targeting.

Homeless people

Characteristics
Homeless people often display one or more of these characteristics:

- Chaotic lifestyle: challenges to leading a structured lifestyle

- Housing problems: they might be rough sleepers, living in hostels , living on friends' or family's floors, or in temporary accommodation

- Substance abuse: alcohol and/or drug abuse is a common problem

- Language barriers: a significant number do not have English as a first language

Current use of digital technology
While most of the people who use the facilities of homeless charities have low experience of using digital technology such as computers and the internet, the overwhelming majority of them have mobile phones.

Many have a fear of IT, feeling that while it might be of some relevance to them it is not something that they can see themselves using and is not something that is compatible with their current life situation.

Barriers and enablers
The barriers this group face in having direct interaction with digital technology, particularly PCs and the internet, include:

- Perceptions: they think that PCs are a lot more expensive than they actually are. However, even the actual cost is a barrier for many

- Lifestyle: making use of digital technology is low on the list of priorities as they have more pressing needs to be dealt with first, mainly securing permanent accommodation and overcoming substance abuse

- Practicalities: the lack of having a bank account and permanent accommodation can make opening a broadband account difficult

- Access: some users have to travel across London to make use of the facilities of charities such as Crisis

Enablers for this group include:
- Demystifying digital technology: Crisis view traditional IT training courses as being cloaked in technical language. Their approach is to do away with this – seeing it as an unnecessary barrier

- Having a practical emphasis: by stressing the practical uses of computers and the internet they hope that users will begin to recognise how IT can help meet their needs

- Simplifying access: making PCs more available in communities, perhaps GP surgeries and as part of extended schools

Pathways to using IT
Once Crisis manage to get people through the door they are quite confident that they can get them to start using digital technology either as part of a structured course (the Learning Zone) leading to an accredited qualification, or through one off workshops and sessions (Skylight project).

The Learning Zone offers a range of IT courses from learning the basics through to an ECDL qualification. The basic level courses are mainly focused on how to use email and the internet rather than learning about how computers work or Microsoft Office programmes. The Skylight project might have 200 people dropping in over the course of the day[3]. The Learning Zone has 30 to 40 people per day. Crisis in London also has an Apple Mac suite which offers people training on how to do programming, build websites and digital photography.

At the moment, Crisis has not formally evaluated the use of digital technology, but from their experience it can have a huge impact on people's lives.

Long term benefits and opportunities
This group have a number of needs which digital technology can meet:

- Practical tool: banking, job searches, accommodation searches

- Contact: using email to keep in touch with friends and family

- Developing skills: gaining accredited qualifications to help them access jobs

[3] Computer training and using other digital technology such as cameras are only part of a wider range of workshops

- Self-esteem: just being able to use a PC and surf the internet makes people feel a lot more confident about themselves

Vulnerable young people

Characteristics
Vulnerable young people have a number of characteristics. These often include one or more of the following:

- substance abuse particularly drugs

- anti-social behaviour and crime

- unstructured lifestyles

- poor educational achievement

- housing problems

- low income, often on benefits

- gang membership

- gun and knife culture

Current use of digital technology
Vulnerable young people tend to have low usage and knowledge of digital technology such as PCs, but are very likely to have mobile phones and sometimes games systems such as Xbox.

Barriers and enablers
Barriers for this group include:
- Unstructured lifestyle: it can be difficult to attract people to ICT learning programmes and then ensure they commit to attending on a regular basis

- The *idea* of learning: these are often people who have not had a successful or enjoyable formal education experience

Factors which enable this group to use technology include:
- Enjoyment: the more that technology can be distanced from the idea that it is about learning and education the more likely they are to use it. These are people who often do not integrate well at college, so learning needs to be delivered in a different format

- Flexibility: drawing from the example of a youth awareness project in South London, behind the scenes there is a structure to the digital technology programmes on offer, but this structure is not pushed on people. Making this work depends on having staff who know when to be hands off and when to introduce people to new things

- Reaching out: by using laptops it is possible for youth projects to reach out to young people who might not come to them. It is often the case that some young people might not visit youth projects because it involves walking through gang territories

Pathways to using IT

In encouraging this group to become more digitally engaged, there is a feeling that providers need to understand that computers are not just about office equipment but are increasingly central to the world that young people live in.

The Thamesmead Youth Awareness Programme (TYAP) is a charity that works with vulnerable young people. It has an accredited digital technology programme called Audio X. They developed this following their experience of other initiatives. They noticed that young people would enjoy using the technology and be learning and acquiring skills by having fun but see this as different to their normal learning experiences. When the staff showed the young people their record of what they had done, they realised there was the basis for an accredited course. Audio X is a music course involving developing songs and posting them on the internet. They are also developing an accredited movie editing course.

As well as a route to learning, digital technology is seen as a pathway to helping young people deal with other problems such as drug abuse. The idea is that if you can engage people's interest through using technology you will be able to slowly get them to recognise and deal with their other underlying problems (This in contrast to Crisis' view is that the other problems are so deep seated that technology will not get a look in until some structure has been added to people's lives). Once people are through the door and using the technology it is physically only a few short steps to them accessing the drugs programmes. There is a feeling that you need to gain their trust, give them something fun to do before you can begin to tackle the other problems they have.

There is a barrier which the organisations such as TYAP face to developing this type of pathway. Their funders sometimes say that they fund drugs programmes and it is not their role to provide the technology which TYAP has found to be a useful gateway to those services. There is a silo problem here – drugs services are perceived as being provided separately to digital technology training.

Long term benefits and opportunities
The use of digital technology enables this group to:

- Gain literacy skills: using the programmes requires them to be able to read

- Learn IT skills: as well as creative programmes they learn office software skills

- Build self-esteem: by learning how to create songs, they grow in confidence

- Employment opportunities: a number of those who have really excelled are getting apprenticeships

From the perspective of the organisation digital technology enables them to maintain the daily contact that is often necessary to break people free of dependence. They tend to use email and text to do this.

Disabled people

Characteristics

One in five of the UK population is disabled, but the majority of these people would not define themselves as disabled and most of them experience low level impairments. However, wheelchair users, blind people and deaf people make up important minorities.

The population of disabled people is highly diverse in terms of age, income, ethnicity and educational level. Disabled people with different impairments, from different socio-economic backgrounds and facing different barriers will have very different day-to-day experiences. Older people however are more likely to be disabled than younger people.

Disabled people face a wide range of barriers including:

- the attitude of other people and organisations
- policies that do not take disabled people into account
- the design of the built environment

Current use of digital technology

The three main ways in which disabled people use digital technology are:

- using adaptive technologies to help lead independent lives
- using the internet as a source of information
- using the internet as a means of keeping in touch and social networking

A range of adaptive technologies are available to people to enable them to use digital technology, for example, screen readers, Braille displays, screen magnifiers and speech recognition. However, disabled people on low incomes may not be aware of the free adaptive technologies available to them. For example blind people may not think they will be able to afford a screen reader. Only one in ten of people with visual impairments and two in ten people with hearing impairments use adaptive technologies[4].

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[4]   Ofcom Consumer Panel, 2006

The internet is used by many disabled people as a source of information, particularly on what their entitlements are, what support organisations there are in their local area and information about their impairment; for example if they have been recently diagnosed with a long term condition. In rural areas, disabled people may find it difficult to secure transport to support groups so the internet is a valuable means of accessing information and support.

The internet is also used as a social networking tool. There is a lot of interest in the internet by older people who see it as a means of keeping in touch with family members who live in other parts of the country. Younger people are often interested in forming new communities and keeping in touch with friends.

There is a big difference in the current use of digital technology between younger disabled people and older disabled people who *"find it difficult to step on a boat that is already moving."*

Care workers who have access to forms of digital technology such as PDAs and Smartphones can utilise the benefits of digital technology such as remote monitoring, but at the same time are able to meet their clients face-to-face.

Barriers and enablers
Disabled people face a number of barriers to having direct interaction with digital technology, particularly around usability and accessibility:

- difficult to promote the use of digital technology to those who are already not engaged. How do you promote an online service or website to people who do not use the internet?

- digital technology, software and digital content does not always meet the diverse needs of disabled people due to insufficient disabled user testing

- disabled people living in poverty have the most limited choice when it comes to digital technology

- adaptive technology can be expensive, making employers reluctant to purchase it

- in rural areas, broadband can be unavailable or slow

- disabled people may lack the confidence in using the technology and can be scared of 'making a fool' of themselves, or embarrassed to seek help, for example, in requesting accessible formats of information/technology

- the internet can lead to information overload, for example, someone who is newly diagnosed with a long term condition has potentially an overwhelming amount of information available to them about their condition, some of which maybe misleading or even completely wrong.

- some people, particularly older disabled people, are suspicious of digital technology and can be fearful about how safe it is to be online

Enablers for this group include:

- digital technology being marketed as a fashion accessory. There needs to be a well supported campaign to make people understand how they can customise and use technology to suit their needs

- improved dissemination of what is available to people for free. There are free screen readers for visually impaired people but when people search on the internet they are more likely to only find out about commercially available screen readers

- employers of disabled people need to be aware that accessibility changes are low cost

Pathways to using IT

AbilityNet are a partner in the Switched on Communities project that supports disadvantaged groups through the provision of technology and training in community hubs. They also provide online guidance to disabled people on how to customise their computers to make them more accessible, for example, how to make text easier to view.

In order to reach out to disabled people at risk of digital exclusion, outreach work is important especially for older disabled people and disabled people who are not able to leave their homes.

Long term benefits and opportunities

This group have a number of needs which digital technology can meet:

- social exclusion and digital exclusion are synonymous – access to employment, occupation, leisure and access to knowledge are all benefits.

- the benefits of PCs and the internet are currently most widely discussed, digital TV and mobile phones are next

- finding out about impairments and services such as direct payments

- for disabled people-led organisations, the opportunities that the internet affords are finding out about legislation and policy changes, as well as keeping in touch with political developments. In addition, it enables them to link up with other organisations around the country, share information, receive referrals online from local social services and maintain contact with clients.

Rural communities

Characteristics

Rural areas often display one or more of these characteristics:

- a broad range of communities: older people; single parents; new immigrants from Eastern Europe; disabled; and low income. However, unlike urban areas, rural deprivation is not concentrated in pockets. Instead, deprivation sits alongside affluence.

- higher numbers of people commuting to work and travelling to access services in towns and cities

- higher number of SMEs in rural areas than urban areas

- young people living in remoter areas who do not have the same access to the latest broadband entertainment, education and training opportunities

- people living in rural areas tend to be older

Current use of digital technology

Ofcom have recently reported that broadband uptake in rural areas (60 per cent) is now higher than in urban areas (58 per cent) and that the 'digital divide' has now been closed. However, broadband service in rural areas is generally slower than in urban areas.

Demand for broadband is higher in rural areas than urban areas but it is more difficult to get a broadband connection, particularly high speed broadband. Demand is higher because of the benefits that it brings for rural communities in terms of accessing services that are increasingly being provided online, social networking, connectivity and employment.

Motivation is an issue for rural communities as well as for urban areas; people will not use the internet if they do not see it as relevant to them or have the confidence that they will find information that is of relevance to their situation. However, for rural communities the infrastructure has got to be there first in order to enable inclusion. Everyone is entitled to a phone because of the universal service obligation; the same does not apply to broadband.

Barriers and enablers
This group face a number of barriers to having direct interaction with digital technology, particularly the internet:

- slower broadband connection and lack of infrastructure to enable digital inclusion

- lack of broadband connection limits the opportunity to use other technologies, for example, new laptops require an internet connection in order to download software

- not being able to receive all mobile phone network signals

- this in turn reduces the choice available to people in rural communities

- the barriers to using digital technology caused by the lack of broadband infrastructure are likely to increase if the infrastructure is not improved as the technology gets better and online services demand faster internet connection

- digital technologies are good at addressing concentrated populations but not yet good at reaching dispersed populations

- lack of transport to public access centres

- public access centres can be intimidating for those who have never used them

- due to the spread of disadvantage in rural areas (ie mixed in alongside affluence as opposed to distinct pockets)

Enablers for this group include:
- promoting broadband as an essential service

- improving the infrastructure in rural communities

- campaigning for access to digital technology to be a universal right

- public access centres

- outreach to excluded groups, such as people living in care homes, people who are housebound

- increase motivation by getting a respected member of the local community to promote the benefits of digital technology

- showing people that the benefits of digital technology are practical

Pathways to using IT

Ruralnet support UK online centres to provide tele-centres and tele-cottages. Originally set up to provide public access to computers in twenty of the most deprived wards in the country, the role of centres has evolved in using ICT to develop skills and confidence and achieving social inclusion.

Long term benefits and opportunities

This group have a number of needs which digital technology can meet:

- practical tool to access services online which would otherwise require travelling over long distances

- as the number of services in rural areas decrease, for example, the closure of post offices, access to digital technology is becoming increasingly important as a means of paying bills etc

- employment – the decline of industry in rural areas has led to more people commuting to work in urban areas. Digital technology enables them to be in a position to work from home and internet access can aid employment searches

- developing skills and gaining accredited qualifications as well as increasing confidence

- social isolation, particularly for housebound people living in rural areas

- there are more SMEs and self-employed people in rural areas, and therefore a greater demand for digital technology

- accessing community self help web forums as another means of fostering the community spirit which is so important in rural communities

Low income households

Characteristics

Low income communities are many and varied, but often include: older people; BME communities; lone parents; and disabled people.

Current use of digital technology

Given the heterogeneity of people on low incomes it is difficult to sum up their current use of digital technology. However, the current use of digital technology is low and there is concern that low income households who are not able to access digital technology could eventually form an 'information underclass'.

Some forms of digital technology have a higher take-up among low income households, with mobile phones and digital TV having a higher take up than internet or computers. In addition, pay as you go mobile phones are cheaper to run than landlines or contract phones.

90 per cent of households in the highest income group have access to the internet; but only 20 per cent of low earners[5].

Barriers and enablers
Barriers for low income households:

- people feeling that they cannot use the internet because of its cost

- lack of ICT skills hampers job prospects. Having a computer at home makes it easier for people to pick up these skills

- not being able to use a computer is not seen by older people as a form of social failure (unlike not being able to read) and therefore there is less motivation in this respect to learn these skills

- reduced funding for IT training courses and poor retention rates

Enablers:

- getting over the message that not all digital technology is expensive

- trusted intermediaries to give advice and support on digital technology to help low income households avoid unscrupulous companies

- more public access points

- improving IT training courses: at the moment they are often not relevant to the ways in which people want to use digital technology. By making them more relevant and making them accredited it will help with motivation and with job prospects

- fuse IT training with literacy classes and have skilled teachers who can teach both

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[5]   ONS, 2007

- stressing practical focus: specifying what the internet can do for you, not by saying 'here is a website'. Provide a whole package (PC, internet etc) rather than component parts and expect people to be able to put it together

- technology is getting more accessible and cheaper. It is important that the motivation of those currently un-engaged is tackled, people need to know that it is relevant to them, for example, if they are looking for a house they can search for houses in their local area online

Pathways to using IT

The National Institute of Adult Continuing Education (NIACE) have been providing IT training and literacy classes jointly as this helps their adult learners learn about IT through a 'side route' and makes it seem more relevant. There is scope for IT to become mainstreamed in other training courses, for example, if you are running a floristry course you could emphasise the importance of technology for people who want to start their own floristry business.

Long term benefits and opportunities
Benefits:

- internet banking helps people feel in control of their financial affairs and enables them to easily set up direct debits

- flexible working may help reduce childcare costs or enable someone to have a second source of income

In the future convergence of digital technologies will help drive down the cost as it will reduce the need for lots of devices

One parent families

Characteristics

80 per cent of lone parent families have access to the internet at home compared to 97 per cent of two parent families. Also, they are more likely:

- to live in poverty and claim income support than two parent families

- to have pressures on their time as they juggle childcare and employment

- to be the carer of a disabled child (having a disabled child is a risk factor for separation) and therefore less able to leave the house if they cannot afford childcare. Many are therefore socially isolated

Current use of digital technology

The majority of lone parents have mobile phones as it is cheaper to run a pay-as-you-go mobile than a landline.

Many lone parents do not have access to the internet. In addition, many lone parents accessing advice have complicated cases and situations and for that reason prefer to receive information and advice face-to-face rather than a website.

Barriers and enablers
This group face a number of barriers to achieving direct interaction with digital technology, particularly the internet and back office computer systems used by government agencies, especially around claiming benefits:

- because of the complex cases that lone parents present,such as unstable employment patterns and the complexity of income support claimant processes, lone parents prefer to receive advice and information from front-line staff

- the cut in front-line staff and other resources at agencies as they move to processing claims online has led to the deskilling of the remaining front-line staff who are not able to provide the appropriate advice and information

- the move of government agencies to providing information online and processing benefit claims online is leaving lone parents, an already vulnerable group, in a more vulnerable situation as they are less likely to have access to the internet due to the cost. This means that it is more difficult for them to know what benefits they are entitled to.

- lone parents who do not have access to the internet and who use telephone services are more likely to be using these phone services from a mobile phone which can be expensive

- the IT used by back office computer systems of government agencies to process benefit claims can fail, for example, the Child Support Agency

Enablers for this group include:

- making services provided by government agencies such as Jobcentres more accessible. An example of good practice is the Citizen Advice Bureau where people can visit a CAB office and use a touch screen to access information but there is still someone around to help them find what they are looking for

- removing the costs incurred by calling freephone numbers from a mobile phone

- free training courses at Jobcentres for people on income support

- making computers and the internet more affordable for lone parents on a low income

- with regards to the benefit system, the opportunity to continue getting advice face to face is a priority for lone parents, particularly those with mental health problems, ESOL and people who require additional support

Pathways to using IT
Given that so called 'free-phone' 0800 numbers are not free for mobile phone networks, Lone Parent Families, a charity that supports lone parents, have made their advice line free for most mobile networks. They are not involved in any other activities using digital technology.

Long term benefits and opportunities

This group have a number of needs which digital technology can meet:

- lone parents who find it difficult to secure childcare and therefore diffcult to leave the house would benefit from social networking opportunities that digital technology can offer

- similarly the opportunity to work at home and flexible working would benefit lone parents

Refugees and asylum seekers

Characteristics

Refugees and asylum seekers may have one or more of the following characteristics:

- refugees and asylum seekers are more likely to have mental health needs than the rest of the UK population[6]

- around one third of refugees and asylum seekers arriving in the UK do not have any English language skills

- negative public attitudes and discrimination towards this group

- in a recent DWP research report on refugees and asylum seekers, 60 per cent of refugees who took part in the research were interested in participating in training; with ICT being the most in demand[7]

- the majority of refugees and asylum seekers have participated in formal education before coming to Britain

- low level of labour market participation and high levels of poverty

- social isolation

Current use of digital technology

Current use of technology is variable but ownership of mobile phones is widespread. Anecdotal evidence suggests high use of internet cafes to contact family in home countries.

Barriers and enablers

Barriers:
- language barriers. Services do provide information in other languages which can often be requested online, but sometimes the key languages for refugees are not covered, for example, French and Portuguese for people from North Africa

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[6]   SCIE Race equality discussion paper 02: The social care needs of refugees and asylum seekers

[7]   DWP Research Report 179: Refugees' opportunities and barriers in employment and training

- the internet can be information overload for people who have little understanding of how the British system works

- if someone types in something to Google but spells it wrong, they can get the wrong information

- one of the barriers faced by some ethnic minority women (not necessarily refugees) is that they are not encouraged to leave the home which can leave them both socially isolated and digitally excluded if they are not able to access the internet at home. Other reasons why some groups of ethnic minority women are not engaged with digital technology include language barriers and poverty

Pathways to using IT

It can help to learn about ICT and digital technology through a side route rather than formal classroom based IT education. It is important that people are given a 'hook' to interest them.

Long term benefits and opportunities

This group have a number of needs which digital technology can meet:

- it can help refugees and asylum seekers to maintain links with family in other countries and rebuild networks

- it can help refugees feel more integrated

Small and Medium Enterprises (SMEs)

Characteristics

SMEs account for 99 per cent of businesses in the UK. They have one or more of the following characteristics:

- SMEs account for more than half of all UK employment and more than half of the UK's estimated business turnover[8]

- there is a higher concentration of SMEs in rural areas. For example, the South West has the highest SME base in England, accounting for over 70 per cent of employment in the area.

- unlike larger firms which have the option of handling many of their needs in-house, SMEs rely on other firms for services such as staff training and marketing

Current use of digital technology

SMEs are generally keen to use digital technology and recognise the benefits that it offers to enhance their commercial offering and working practices.

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[8] *Statistical Press Release URN 05/92*, Office for National Statistics, 2005

In late 2005, 55 per cent of SMEs reported having access to one or more mobile phones and 84 per cent had access to the internet, of which 73 per cent had access to broadband[9]. However, smaller SMEs are less digitally engaged than larger SMEs.

Barriers and enablers
Barriers to using digital technology:

- most SMEs do not have dedicated resources to improving their ICT systems and find it difficult to plan an effective strategy

- planning an effective strategy is seen as 'too hard' – it is difficult to know where to start

- perception that it takes time, money and energy to update their current ICT set-up and improve their use of digital technology

- lack of expertise and inability to afford expensive private sector consultancy

- unwillingness to take risks; lack of success in deploying IT carries a high price

- SMEs are more limited in being able to afford IT training for their staff

- lack of broadband in rural areas/mobile phone signals

Enablers:

- encouraging a change of attitude in SMEs who do not currently see digital technology as a means of driving their business forward and delivering a better service for their customers

- showing the efficiency gains that digital technology can bring SMEs

- encouraging SMEs to factor in digital technology in their business development plans

- improving broadband penetration in rural areas/improve mobile phone signals

- improving internal ICT knowledge and capacity

- ensuring SMEs have access to relevant, affordable and sustainable providers of ICT advice, support and services

- using ICT champions to share best practice and champion the purpose of well-managed ICT infrastructure

- showing SMEs practical examples of where technology has been useful – eg exchange visits and highlight where things have worked well without focussing on ICT failures

- access to trusted local advisors

Long term benefits and opportunities
Benefits of digital technology to SMEs:

- offer new ways for SMEs to promote and market themselves

- Offer employees more flexible working practices; particularly important given the higher concentration of SMEs in rural areas.

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[9]   http://www.ofcom.org.uk/research/cm/smeengagement/smereport.pdf