How People Encounter E-illiteracy and how they can Take Action to Overcome It

Penceil

Penceil Paper 3

Review of Literature on Good Practice in Basic ICT Teaching and Review of Policy

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Scope of Study:
The study examines 36 documents with reference to basic IT skills published over the last 5 years within the UK, including policy documents, evaluation reports, literature reviews and articles. The purpose of the review is to ascertain the current governmental policy focus in respect of IT literacy and summarise best practice within ACL in respect of delivery of basic IT provision. Only evaluations of large-scale initiatives have been included.

Access and the Digital Divide:
Over the last five years the political climate has experienced considerable transition. Government policy around ICT appears no longer to emphasise the importance of 'learning' about technology as once was the case, instead we have seen a move towards adopting technology, such as the Internet, as a potential means of ameliorating social exclusion and promoting active citizenship.[1] This altered perspective has highlighted the complex nature of the digital divide, given rise to the language of 'digital exclusion' and has broadened our understanding of 'access' and 'use'.

In the wake of the establishment of 6,000 UK online access points, there has been a notable shift in emphasis from physical access as the primary barrier to take-up towards the recognition that confidence, skills, relevance, content and trust (online security and crime) are the concerns of the future.

At the time that UK online was launched, 'access' to technology was understood to mean reasonable geographic proximity of the individual to the technology, enabling the promotion of learning. This definition of access, coupled with the need for learner support through considerations such as childcare, transportation and good quality staffing were seen as first steps towards bridging the digital divide and have characterised the approach to delivery adopted by subsequent initiatives.

In more recent documents, such as *Enabling a Digitally United Kingdom* and *Connecting the UK*, 'access' has come to describe the potential of learners to physically engage with technology, which is inhibited less by external influences and increasingly by factors such as disability, low motivation and a lack of personal relevance. The recognition that factors beyond social exclusion influence engagement has created a more complex and dynamic understanding of both 'access' and the 'Digital Divide' as hierarchical rather than dichotomous concepts[2].

This deeper understanding of access, use, motivation and relevance can be attributed to the rising profile of ICT, which has graduated from a critical skill for employment, to a recognised skill for life[3]. The heightened profile of ICT skills in the UK reflects wider European plans to promote access, connectivity and skills as critical to equipping the global citizen. However, the logistics of meeting these goals depend

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[1] Wyatt, J et al. "Evaluation of CMF Funded UK online Centres – final report", Hall Aitken, 2003
[2] Selwyn, N. "Rethinking the Digital Divide in Adult Education: Neil Selwyn on a high profile adult education issue"
[3] Department for Education and Skills, "21st Century Skills: Realising our Potential", DfES White Paper, 2004

upon the raising of educational standards and skills alongside the development of good quality content and promotion of the wider benefits of technology[4]

The new characteristics of digital exclusion:
In line with this new understanding of engagement, discussions over definitions of the digital divide have been abandoned for debates over the nature of digital exclusion and the characteristics of the excluded. There is undeniable parity between the profile of digital exclusion and that of social exclusion, however additional factors such as motivation, relevance and age[5] are now recognised as equally likely to enhance the probability of an individual to experience exclusion from technology.

Reports from both the recently formed Digital Inclusion Panel and Cardiff University's Neil Selwyn assume the position that there is a much less meaningful relationship between digital inclusion and wealth than was originally thought, rather, engagement depends upon the individual creating their own contextual framework and motivation for adoption, which is unlikely to occur without the encouragement of a "compelling proposition[6]."

Selwyn comfirms that 'access' in itself is not enough to promote a digitally inclusive society. Meaningful, or functional, access to technology such as access at home, work or college is considered by the learner, both anecdotally and empirically, to be critical to engagement. The UK online centres evaluation for example stated that learners considered any new ICT skill to be of "limited use" unless supplemented by home access. In brief, the new characteristics of exclusion from ICT can be summarised as:

> ➢ Age (*advanced age is the characteristic most likely to be predictive of whether an individual will be digitally excluded*)
> ➢ Low motivation
> ➢ Lack of <u>perceived</u> relevance
> ➢ Lack of <u>meaningful</u> access

Understanding digital engagement:
The most recent definition of digital engagement, as defined by the Cabinet Office 2004, includes the ability to perform the following functions:

> ➢ "Send and receive voice messages, e-mails, photo-mails, video-mails or any other type of e-message;
> ➢ Access, consume and produce multimedia web content, ranging from informational and educational to entertainment; and
> ➢ Carry out transactions ranging from shopping to accessing government services."

This resembles, in many ways, a profile of consumption and the expectation is that, for many people, digital uptake will be a market-driven process that is already evident in the proliferation of broadband, requisite skills for employment and the ways in

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[4] Bradbroook, G. Fisher, J et al. "Digital Equality: Reviewing digital inclusion activity and mapping the way forwards", <u>Citizens online</u>, March 2004

[5] Cabinet Office, "Enabling a Digitally United Kingdom: A Framework for Action", 2004

[6] Cabinet Office, **"**Enabling a Digitally United Kingdom: A Framework for Action", 2004

which individuals search for jobs. It is notable also that the most recent policy documents have moved away from the language of social inclusion and adopted terms previously used within a marketing/business context.

Basic IT skills:
In terms of basic IT skills, evaluations suggest that successful delivery has consisted largely of learners either adopting any requisite IT skills during a first 'taster', or through progression as a result of this initial exposure to technology. In terms of process, centres/projects provided drop-in access as the first rung of provision, although case studies indicate that in many cases this led to further IT training ranging from support for activities defined by the learner (or product specific training such as "Introduction to Word") to more formal accredited or non-accredited courses such as those offered by City and Guilds or learndirect. CLAIT was cited with most frequency.

It appears to be generally agreed that the appropriate, purposeful use of technology[7] should be central to the development of any basic IT provision. A study conducted by Neil Selwyn discovered that ICT alone has been unable to attract educational non-participants for reasons of lack of access, lack of competitive cost, remaining institutional barriers, ineffective content targeting, communication obstacles, and long-term socio-economic background characteristics. The evidence shows that incorporation of ICT into education isn't doing anything other than "appealing to those who are already very likely to be participants in adult learning."[8] This was held out by the UK online reports that suggested that most of the centre users were already engaged in learning, suggesting that delivery should be taught in context meaningful to the learner.

Learners learned to use technology, or learned through technology in largely informal and unstructured ways. Most adults seemed to be creating a use for technology rather than the technology filling deficits in their lives, leaving a large question mark over the notion of learner motivation.[9] It seems to be that the initial use of technology is dependant upon the learners' capacity to follow-up their new skills. This rule can theoretically be applied, as much to analysis and synthesis of information after the development of search and retrieval skills, as it is to meaningful access to technology after development of basic IT skills.

There is a great deal of interest in understanding the nature of digital exclusion and the importance of developing a meaningful experience, however there is little mention of the necessary underpinning literacies that create this experience. Only two of the reports noted the importance of these literacies (and a third quoting Bradbrook) and currently this is not transposed to policy (Bradbrook and Fisher, 2004; Future Foundation Projects, 2004; Loader & Keeble, 2004)

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[7] Bradbroook, G. Fisher, J et al. "Digital Equality: Reviewing digital inclusion activity and mapping the way forwards", Citizens online, March 2004
[8] Gorard, Stephen and Neil Selwyn and Sara Williams. "Must Try Harder! Problems Facing Technological Solutions to Non-participation to Adult Learning." British Educational Research Journal. Vol. 26, No. 4, 2000.
[9] Selwyn, Neil. "At home to adult learning" *E-learning age.* November 2004. pg 20-21.

In general, although the evaluations dealt with good practice, the recommendations tended towards generic descriptions of the environment, staff and types of courses undertaken. There was very little consideration given to the delivery of the training or a breakdown of the courses themselves, however, the following generalisations can be made:

> Establish need through consultation
> A community environment setting – to disassociate from poor prior-educational experiences, non-threatening etc.
> Establish a welcoming non-formal classroom environment
> Employ supportive, patient respectful staff. These were often cited as positive elements of the learning experience
> Employ appropriate, <u>purposeful</u> use of technology
> Be aware of the cultural needs of the community and tailor your provision, where appropriate (especially in the case of women)
> Use of non-textual representation for non-literate learners or speakers of other languages
> Learner-centred approach to teaching (supportive, encouraging staff)
> Use of multiple technologies in support of learning (classroom and self-directed activities)
> Courses offered in small increments with accreditation at each stage
> Learners appreciate certificates and celebration of achievement
> Flexible course timings, to suit the lifestyle of the learner
> Peer/mentor support should be encouraged as this often proliferated into the wider community and brings in new learners
> Ensure measurement of soft outcomes as well as hard (e.g. self-esteem, confidence as well as acquiring employment)
> Use existing social networks – to help embed ICT in the every day life of the participants
> Offer low cost access outside of the parameters of the course to promote self-directed learning
> Content should be relevant to learners own life experiences (often not the case in course design, which is funding led or managed). One should consider the learner as the 'content creator'
> Learning by stealth (the use of a game to introduce learners to net-based communication was cited). Mapping learning outcomes in this case proved problematic
> Differentiation is key to delivery of effective courses
> The course should Focus upon access to timely and relevant information, via the Net, for vulnerable groups
> Critical enablers such as childcare and transportation should be offered, where possible. This can also be achieved through partnership with other initiatives.

Learner barriers and motivations

Understanding of the barriers to uptake has, over the past few years, been transformed through the ubiquity of access points and provision. Hall Aitken have discovered that inconvenience, perceived cost and low interest were the key barriers to uptake of provision for individuals, once issues of access had been resolved. Confidence, inaccessible content, lack of physical access and adaptive technologies are barriers to the development of E-skills, coupled with less tangible factors such as lack of

knowledge, awareness, skills, and social support. Learners also often felt that technology was complex and that they would be unable to fix it if things went wrong.[10]

In order to aid understating of the influential factors inhibiting digital take-up, the Cabinet Office have designed a benefit realisation model which plots levels of access, to be understood as the number and different types of ICT engaged, with against frequency of use. Based upon analysis of data from the Office of National Statistics, it was estimated that 48% of the population was not currently digitally engaged.

In terms of motivations, for those who are unengaged despite high/moderate access, the following activities were considered motivators:

Low and Middle income groups	Very High/High access and unengaged:	Moderate access and unengaged:
Health and Social Care	E-booking, health and social care service online	
Access to social and professional services		Online resources to find social (eg benefits, education and professional (e.g. plumber, electrician) services
Leisure and Entertainment	Video services, specialist chat rooms	Video on demand, downloading music
Money – savings and benefits	Access to Government benefits, cost-saving through shopping. Breaking down of geographic isolation	Pre-paid Internet; promoting cost-saving benefits through online shopping
Employability		Job fairs and online job search, IT literacy training

Above all, the evidence suggests that learner motivations are numerous and varied, and cannot be as easily categorised as previously thought. Research indicates however that technology is sought, quite often, as an end in itself. The UK online report suggested that most people wanted to learn how to use a computer (73%)[11], and to a lesser extent as a tool for communication or as an enhancement to existing hobbies or interests.

Suggested future research (Greater London Authority):
- Investigation of ICT patterns of socially excluded people.

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[10] Georgiou, G. "General IT Literacy: A research report of a survey of the British population on computer usage", The British Computer Society, 5 September 2004

[11] Wyatt, J et al. "Evaluation of CMF Funded UK online Centres – final report", Hall Aitken, 2003

- Motivations and underlying rationale that encourage socially excluded groups to use ICT.
- Benefits derived by socially excluded groups from using ICTs.
- An investigation of the rationale underlying this lack of interest, motivation, and belief of irrelevance of ICT to their life.
- The willingness of socially excluded groups to use public access points.
- All users should be asked about how they first used ICTs and how their use of ICT at public access points differs from their use of ICT at other locations.
- The attitudes of socially excluded groups to ICT skills training.
- Motivations and benefits of ICT training amongst socially excluded ICT users in access centres and training initiatives.
- Examine how experienced and 'new' users from socially excluded groups use ICT.
- 'New' users should be monitored to identify how using ICT is beneficial to them.[12]

Those with poor basic skills, the unemployed and the elderly are considered to be the excluded groups of the future.

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[12] Foley, Paul and Ximena Alfonso and Shazad Ghani. "The digital divide in a world city" Greater London Authority. June 2002.

Annexe: Summary of the documents reviewed

Bradbroook, G. Fisher, J et al. "Digital Equality: Reviewing digital inclusion activity and mapping the way forwards", <u>Citizens online</u>, March 2004
<u>http://www.citizensonline.org.uk/site/media/documents/939_DigitalEquality1.pdf</u>

The digital equality report, published by Citizens online was written to assess the landscape in terms of digital equality and to inform future digital inclusion work. The report contains a fairly comprehensive statistical overview of the state on the nation (Pgs. 12-14) and illustrates the ways in which technology can help to promote identity and social inclusion.

Commonalities and patterns between social and digital exclusion are sought and highlighted throughout. Community development approaches in particular are drawn to the fore, and the emphasis here is upon the appropriate, or purposeful, use of technology (rather than providing ICT for its own sake) and the use of technology to address wider issues of social inclusion.

The report contains a breakdown of the various literacies required to explain ICT as skill for life. They include Information literacy, technology-related literacies, ICT literacy, Net/Web literacy, supportive composite literacies, e-Learning literacies and e-citizenship literacies; original to be located at:
<u>http://www.aclearn.net/technical/metadata/e-learning-summit/ict-literacies/</u>)

In brief:
- Information literacy explains the critical analytical skills that allow the user to seek out access and evaluate the usefulness resources.

Technology-related literacies:
- ICT literacy explains the users ability to transfer these skills to new/changing technologies.
- Net/Web literacies describe competencies required to use online tools and work within values/rules developed for electronic interactions, such as Netiquette

Composite literacies:
- E-learning literacy describes the competencies required to utilise the tools, support and resources necessary for technology-supported learning.
- E-citizenship literacy describes the use of the appropriate tools, support and resources to meet citizenship (social) goals with the use of technology. This also requires an understanding of the rights and responsibilities associated with active citizenship.

NB: Currently BECTA are conducting research into the ways that users search for information, with the goal of proposing appropriate Metadata to enhance results for the user appropriate to their needs.

The report suggests that ensuring support for cultural and social needs, IAG and employment progression measures as critical, and mentions basic ICT skills development although it doesn't describe in detail process or practice.

The excluded segments of interest include older people, disabled people, black and minority ethnic communities, disadvantaged young people, and women. In order for these groups to progress to digital inclusion and social equality, availability of connectivity is of primary concern, but "effective use of their Internet interaction" (14) is imperative. It is the government and business' responsibility to resourcefully assist excluded communities; this can be done through increasing funding, volunteering, training, social awareness and social responsibility.

Learner Motivations of Communities of Interest:
Across communities of interest there are thematic ICT learner motivations, which include access to information, improvement of confidence and personal skills, improving health, community building, developing practical and specific skills for employment, and gaining a competitive edge for employment. ICT is considered important to the older cohort because they are considered to have a greater need for public services than younger groups. ICT assists with access to information about these public services and "can enable older people to live independently in their own homes for longer and can also be a social activity" (36). Learner motivations of disabled people include the decrease of time lost from work when on a disabled leave, because of the home-based advantage offered by ICT. Black and minority ethnic communities find advantages in ICT that include an easy and cheap mean of communication with relatives overseas through the Internet. Disadvantaged young peoples' motivations primarily include ICT as a means of access to education, for example; women and young carers who may need to be at home to care for a sick relative or child, may find participation more appealing through e-learning than traditional learning. Young people in prison are more likely to be able to improve their basic skills (45). The community and voluntary sector (third sector) is considered well positioned to play an increasingly important role through ICT (65).

Policy Emphasis to bridge the digital divide:
The report suggests that most influential means of bridging the digital divide would be to add ICT skills as the third basic skill of literacy, as suggested by the BECTA and the governments Skills Strategy White Paper. This addition to the literacy definition would mean including ICT skills in the *Skills for Life* programme. This would also place greater responsibility on the government to ensure that students are learning ICT skills. In addition, it would increase learner motivation, which has proven to be a challenge among current non-ICT users (24-25).

Government Initiatives:
The general focus of the global and European plan is provision of access to quality Internet connection and skills enabling citizens "to live and work in the new information society" (52). The logistics of reaching these goals include points of the following issues: Increase overall access, focus to increase access in rural areas, encourage use, raise awareness of benefits, raise education standards, raise ICT skills, tackle skills issues, and develop good content.

Among the UK National government departments there is a consistent theme emphasizing the access to ICT, such as The Office of the e-Envoy (OoE), which has set a target of "universal access." The difficulties of getting landlines and broadband into isolated rural communities have raised initiatives with objectives "to improve the accessibility of services for people in rural areas." A second theme through the

government initiatives is the encouragement of ICT use through raising awareness of the advantages of ICT. Included in the 2002 UK online annual report are strategies for, "encouraging people to use the Internet by increasing awareness and embedding ICT into the lifelong learning opportunities" (54). The Department of Education and Skills (DfES) would like to "raise the standards in English, maths, ICT and science in secondary education" (55).

The digital inclusion strategies of the One North East include increasing access to Internet, raising awareness of the benefits of ICT and "working with the third sector, developing digital inclusion programmes that include individual and community development and developing a digitally inclusive approach to development projects," suggestions for digital inclusion include installing computers in rented housing (60).

Recommendations for Government:

An important issue to tackle among non-users is generating interest and confidence in ICT as well as building trust with skill trainers, ICT centres, and government. Funding should be delegated to the appropriate areas that can enhance interest and trust, such as Third sector. Funding for volunteer trainings, which are the people that can be most effective in building confidence and interest among non-users, will gain lifelong skills. A focus on communities from the ground up is considered the most effective approach.

Cabinet Office, "Enabling a Digitally United Kingdom: A Framework for Action",
2004 www.cabinetoffice.gov.uk/publications/ reports/digital/digitalframe.pdf

Enabling a Digitally United Kingdom is the first publication of the newly established
Digital Inclusion Panel (DIP) that offers a snapshot of the current levels of digital
engagement in the UK. The panel comprises of representatives from the public,
private and voluntary sectors. The intention of the group is to' identify those at risk
of digital exclusion', suggest future action to aid encouragement and make
recommendations for a coordinated cross-sectoral approach to creating a digitally
united UK.

The report examines current public use of digital technology and suggests strategies
for improvement of access. The report notes particular concern for older people who
currently have no interest in or access to technology, those with poor literacy, and the
unemployed, who are considered to be the vulnerable groups of the future. The report
pays considerable attention to the older population.

The report recognises moves towards digital engagement must include not only
access, but also address issues of use, which points towards the need for transferable
skills and relevance to be addressed.

The suggested framework includes;
- Commercial innovation and enterprise
- Social innovation and enterprise
- E-Government service delivery
- Lifelong learning opportunities (to be realised through e-Skills UK, the LSC and
  the Government)

There exists an increased commitment to a greater joining-up of approaches to ICT
skills evident in this document that draws together sectors to work towards common
goals. There is also a broad acceptance that digital inclusion is wider than issues of
access, rather it is a multi-dimensional issue that includes degrees of use. The report
goes so far as to define a profile of digital engagement, which includes the ability to:

- "Send and receive voice messages, e-mails, photo-mails, video-mails or any other
  type of e-message;
- Access, consume and produce multimedia web content, ranging from
  informational and educational to entertainment; and
- Carry out transactions ranging from shopping to accessing government services."

Which looks very much like a profile of consumption. The expectation is that for
most, digital uptake will be a market-driven process. The report suggests that
although some individuals will experience exclusion, the current notions of access
will change into issues around disability etc. It is thought, however, that community-
led learning opportunities will ameliorate the potential effects.

The reports charts the benefits of digital inclusion as primarily economic, based upon
a move from a fundamentally manufacturing/service-based economy to one where
knowledge and its acquisition is a critical skill. This transition is already reflected in
required skills for employment, and the routes by which people seek employment.

Convergence:
Increased convergence of technology is anticipated in the future (the need to use more than one form of technology to meet a goal), and with it the need to develop skills to cope with this development. There are currently many benefits to using the Internet as a consumer, however the report suggests that a lack of trust means that some individuals are missing out. It is suggested that concerns of safety are disproportionately high when compared to actual experiences of fraud etc.

Digital exclusion, it is suggested, will not only affect potential consumption but also exacerbate in many cases family, economic and social problems. Indeed, the use of the Internet is increasingly becoming entwined with access to health services, citizenship and community cohesion (and in some cases social capital). Indeed, ICT knowledge and skills will be critical to the promotion of enterprise and innovation if individuals are to meet their full potential.

Compelling Proposition:
Having set out this imperative, the report considers some of the issues that bar the way to full inclusion. The most critical and least understood is that of the 'compelling proposition' or the promise that encourages the excluded individual to engage with the technology. In order for the proposition to compel the potential user, it must first be perceived as meaningful and valuable, in much the same way as any other consumable.

This is where the problem lies. Currently, there is no evidence to show what a compelling proposition might look like for non-users of digital technology, and with this in mind, the Digital Inclusion Panel have designed a series of models that can use existing data to indicate what digital inclusion in the UK looks like, in order to profile the target audience.

The digital engagement framework was designed by the DIP working group in order to locate the UK population in terms of their levels of digital engagement. The population was segmented by access to technology (V. high, high, moderate, low) and use (Unengaged, Digital communicators, Digital harvesters, Digital transactors).

A 'benefit realisation' model was established to aid understanding of influential factors regarding digital take-up (which were often context-based and influenced by connectivity, content and capability), and plotted these on a matrix; those that were digitally engaged featured in the segment of high transaction.

Context, connectivity, content and capability are all fairly straightforward concepts and refer to how people live their lives, their means of access to the Internet, what materials people engage with, and the skills, knowledge and attitudes of the user respectively. ONS statistics were plotted onto the grid minus the 48% of the population that were not digitally engaged. The results suggest that individuals migrate rapidly from the communication segment and this is attributed to existing convergence of technologies (through the integration of email and web-browsers for example).

The results were then analysed to identify barriers and potential motivating factors for the three least engaged segments (older people in both segments have been omitted from the following table, as has the final segment which was strictly 65+).

Low and Middle income groups	Very High/High access and unengaged:	Moderate access and unengaged:
Health and Social Care	E-booking, health and social care service online	
Access to social and professional services		Online resources to find social (eg benefits, education and professional (e.g. plumber, electrician) services
Leisure and Entertainment	Video services, specialist chat rooms	Video on demand, downloading music
Money – savings and benefits	Access to Government benefits, cost-saving through shopping. Breaking down of geographic isolation	Pre-paid Internet; promoting cost-saving benefits through online shopping
Employability		Job fairs and online job search, IT literacy training

The model shows the impact that age and socio-economic profile have on digital take-up. Lifelong learning opportunities are seen as having a key role in addressing this, and with this in mind the government has:

- Created an e-intermediaries policy, which seeks to promote that all departments involve voluntary, and private sector parties as part of the e-strategy in order to create another link to the customer.
- Designed an ICT user skills strategy
- Made ICT a skills for life

In terms of capability, the report recognises that a lack of knowledge, awareness, skills, money, social support, time and in some cases special need access limit digital take-up amongst those groups that are considered hardest to reach.

Barriers:
 In respect of Lifelong Learning and e-skills development, confidence is cited as a major barrier to engagement as is inaccessible content, lack of physical access and adaptive technologies. It is suggested that projects employ informal learning strategies to encourage digital take-up, such as the use of peer-to-peer, local champions, intergenerational learning and the use of trusted intermediaries as in the case of UK online centres.

Clarke, Alan. "Preparing for Change." <u>Adults Learning</u>. December 2004.

The article *Preparing for Change* addresses the fact that in our changing modern society, technology is becoming more and more relevant to our everyday lives. Currently, the majority of existing, and 90 percent of new, jobs require some form of ICT skills. Meaning all people that do not have competent ICT skills are at a serious disadvantage. This is why the Qualifications and Curriculum Authority has started developing a new Skill for Life standard that will include ICT as a skill. Decisions of how to imbed ICT in the Skill for Life curriculum and address the wide range of learner needs have not yet been finalized.

Key Themes:
- Possibility of embedding ICT in literacy, numeracy and ESOL.
- ICT to motivate learners.
- ICT to support the delivery of literacy, numeracy or language skills and knowledge, versus courses on ICT.
- Learner needs vary.

Clarke, A et al, "Adult and Community Learning Laptop Initiative Evaluation",
<u>NIACE,</u> 2003

The adult and community laptop initiative involved the distribution, on loan, of 1,500 laptops and peripheral equipment (scanners and printers) to voluntary and community organisations managed by local adult education services in order to widen participation.

Support for basic Skills, ICT, Staff development and the production of learning materials were the primary objectives however learning in any context was supported as long as participation was improved.

The project was limited, in the main, by low levels of ICT experience and skills amongst delivery staff. The confidence simply did not exist in many cases to innovatively integrate technology into their activities, however the projects did seem to experience considerably increased motivation amongst learners as a result of the use of technology.

In many cases, the use of technology of this kind was also a draw into classes that they may otherwise not have attended – this impacted positively on basic skills recruitment for example.

A mail group was set up to support participant tutors and this additional support was perceived as beneficial when problems arose or support was required.

Learner Motivations:
- Most of the projects allowed learners to direct their own learning. Each learner identified his or her own project, with the support of tutors, including activities such as compiling CVs and job applications to creating a database to catalogue music, production of publicity materials and In one centre, reminiscence was used to engage learners with the technology, (they were invited to scan their photographs, enlarge and print them whilst discussing their significance).
- The use of technology also aided in identifying basic skills needs and this has in many cases motivated learners to address these issues
- The main use of the laptops was to teach IT
- Although there is much made of the motivational power of technology there is little evidence to show what those initial motivations might be – with the use of qualitative data, it is clear that motivations are numerous and personal. Learner voices indicated the following aspirations:

  ➢ Wanting to know how to build a computer
  ➢ Already had a home computer and wanted to know how to use it ("in case I did something wrong and didn't know how to put it right")
  ➢ Wanting to use the Internet
  ➢ To learn how to word process
  ➢ To find out about the history of Cricket
  ➢ To aid disability
  ➢ To communicate with distant memories
  ➢ To write an autobiography
  ➢ To overcome fear of technology

> ➢ To help with coursework
> ➢ To design tools to help others
> ➢ To practice driving test theory
> ➢ To aid rehabilitation
> ➢ As a means of self-expression.

The publication suggests that teaching IT by stealth is particularly effective as people are drawn to technology when it is used to support another subject.

➢ To help with coursework
➢ To design tools to help others
➢ To practice driving test theory
➢ To aid rehabilitation
➢ As a means of self-expression.

CLES Consulting, MCCR & CEMVO. *"Supporting Access to ICT for BME*
    Groups in Deprived Areas: Approaches to Good Practice" Research Report
    RR388. <u>Department for Education and Skills</u>. Queens Printer, 2003.

       In March 2002, the Department for Education and Skills conducted a research
study to examine the specific barriers faced by Black and Minority Ethnic (BME)
communities and to identify models of good practice in promoting the use of ICT in
BME groups. The research examined eleven case studies that support access by ethnic
minority groups of ICT and the ways in which these case studies have been successful
in engaging BME's with ICT. The successes of the case studies range in both 'hard'
and 'soft' achievements. Although not all black and minority ethnic groups
experience the same barriers to accessing ICT, there were theme successful trends
among the case studies to engage BME's with ICT. The themes included holistic
approaches, responsiveness, flexibility, accessible and localized provision, language
support, cultural sensitivity, effective outreach, affordable provision, and access to
core and long-term funding. The most important factor of success was taking a
ground-up approach by the use of "local community groups [to engage BME with
ICT] who have both detailed knowledge about developments in their own locality and
existing relationships with and understanding of the local community" (14) and by
using tutors, trainers, and outreach personnel of the ethnicity of the targeted group.

Points of success in UK Online Centres (20):
- Opening times that are flexible or scheduled around school hours.
- Courses were offered in small increments, often with accreditation at each stage, and staff counselled learners on the best approach to meeting needs and interest through progression as needed.
- Most computer centres helped casual enquirers with the basics of getting around a computer or answered specific questions without signing people up for a course unless they felt they were ready for one.
- Staff were welcoming, patient, respectful and used to working with people who have been out of education for a long time.
- Centres were located near where people live so commuting was drastically reduced.
- The centres were filled with a mixture of BME's.

Suggestions:
- ICT alone is not single answer for addressing social exclusion; a holistic approach should be taken.
- ICT is not necessarily the primary driver for many BME groups when they engage in ICT, it has been found that once they are in an organisation that offers a diverse range of learning and leisure activities and are presented with access to ICT services in a safe and familiar environment, the take-up among BME communities is increased. ICT courses and drop-in services should be provided alongside a divers range of other activities including ESOL, cookery and sewing classes, sports activities, welfare advice and so on (31-32).
- ICT projects should be responsive and adaptive to their target communities' needs.
- Flexibility: hours of operation and course times.

- Location in which ICT is provided should be: in the heart of the community it serves, in an accessible location with good transport links, based in a well established community venue or facility, and a visible presence within the local area.
- Provide opportunities that enable an incremental process of learning and skills development.

Language difficulties and the different cultural needs of BME groups:
"For ICT programmes to be successful they need local ICT champions and mentors who are drawn from the same background as the community they serve. They should also ensure that local provision reflects the cultural background of the neighbourhood, for example, by providing home access in communities where women find using public access difficult. There is also a need for more software for teaching English as a second language and a need to improve the availability of software in minority languages and more software based in non-textual representation." (7).
Identify specific cultural needs; unisex provision should be available in densely populated areas for women that cannot participate in mixed classes.

Measure 'hard' and 'soft' outcomes:
Recognition that both 'hard' and 'soft' outcomes are important with regard to supporting access to ICT for BME.
Hard outcomes range from quantifiable outcomes such as the achievement of qualifications, the take-up of further training and entry to employment.
With regard to value for money, research suggests that measures based simply on the calculation of costs, coupled with 'hard' outcomes, fail to reflect the full benefits of community based ICT projects.
Soft outcomes range from non-quantifiable outcomes linked to quality of life aspects, including those pertaining to confidence, aspirations, self-esteem, communication skills, ability to access information, social interaction, and participation in other community activities (7).
Greater emphasis should be placed upon non-formal learning opportunities.

Funding:
There is a clear need to recognise the achievement of 'soft' outcomes in the provision of ICT services and to communicate the benefits of non-formal learning opportunities to potential funders. There must be a shift away from one-off capital investments in ICT facilities to funding which enables projects to make ongoing upgrades to ICT hardware, to take advantage of new technologies as they emerge, and to allow for sustainability (9).

Future Research:
- Additional research into the 'soft' outcomes achieved by projects to examine how these can best be captured at the individual project level and subsequently communicated to project funders.
- A greater knowledge base with regard to the number, location and type of community based ICT projects to encourage collaborative working
- More effective monitoring of the uptake of ICT by BME groups for a better understanding of the impact and achievement of initiatives which seek to support access by such groups.

Cybrarian (MyGuide)
http://www.dfes.gov.uk/cybrarianproject/

Cybrarian (MyGuide) is a user interface/service designed to facilitate access to the Internet for those who have not previously been online. It is intended that this interface will allow for new users to pursue personal interests/hobbies whilst in a 'safe space' through the use of supportive tools designed to support disability or low levels of basic skills. Currently at procurement stage, it is anticipated that the end result will look like this:
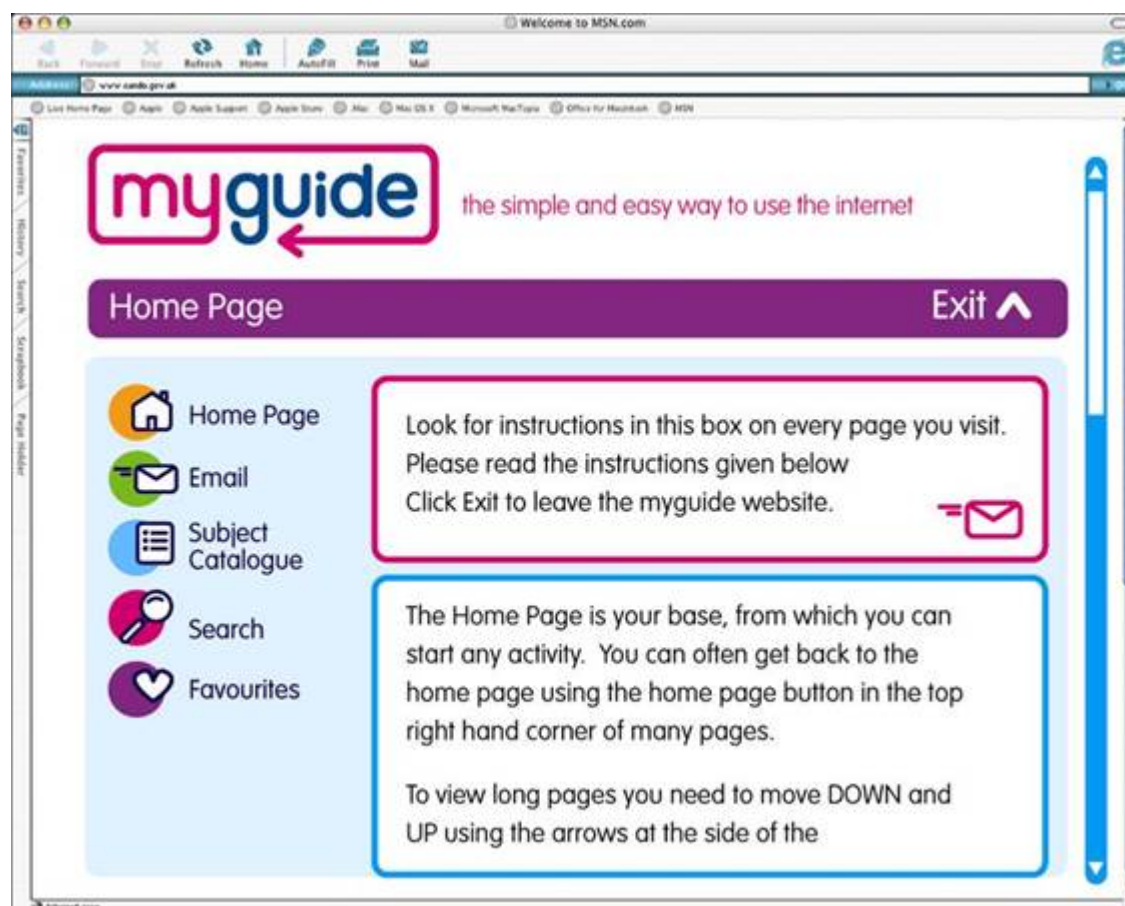
Although a Government (DfES) initiative, project management and delivery will be handled by UfI.

Davies, W. "Proxicommunication: ICT and the Local Public Realm"*,* <u>The Work Foundation</u>, July 2004

This publication is a product of the Work Foundation's iSociety project, an independent analysis of the impact of ICTs on everyday life. The report centres on an interrogation of the notion that new technologies result in enhanced social capital/impact within communities. It explores the potential of ICT to support local governance and questions whether technology designed to 'shrink-distance' actually reinforces isolation, or promote cohesion within local communities, and to what extent it might serve the real needs of the citizen. The report accepts that in the case of common interest communities, technology often effectively supports their needs and creates additional space within the public realm/sphere in a manner that had not existed previously, however, although certainly supportive of aspects of local community life, it cannot be said to be the most effective tool for Governance.

There is no mention of requisite skills for participation, or policy in this area. Although it speaks briefly of the limitations and concerns of the citizen:

"Moreover, the new and decentralised character of the web means that this is a space that does not bring its own authorities with it. For libertarians, this is its most cherished feature. For citizens, this is often its greatest threat."

Department for Education and Employment
"An Evaluation of UK Online Computer Training" Research Report RR329. <u>Queens Printer</u>, 2002.

Research was conducted from October 2000 to 2001 in order to evaluate the effectiveness of the Department for Education and Employment's 'UK online Computer Training' initiative. Qualitative and quantitative research was done on the UK online participants and trainers. The pool of participants comprised of a diverse group and demographically representing the adult UK population; the majority of participants were either unemployed or economically inactive. The finding of the research was a bundle of good practices and means to encourage participation of UK online courses, as well as correlation between course completion and employment status.

Learner Motivations:
  ➢ Employment related motivations: to gain ICT experience and/or qualification to help in applying for and finding work, 'improve chances of getting a job.'
  ➢ Motivation to add new and marketable skills to their repertoire.
  ➢ Gaining certification.
  ➢ Course training was another mean to fulfil another benefit/JSA criteria.
  ➢ Trainees used the course as a means to put off work.
  ➢ Concerns about personal image to others, particularly employers.
  ➢ Course provided something 'to do' for retirees.
  ➢ Place to socialize, meet people.
  ➢ People viewed UK Online as an opportunity to seek new skills and take control of their career direction.
  ➢ Interest in up-skilling or retraining skills.
  ➢ Female caretakers viewed course as providing leverage to re-enter the job market at a level suitable to their skills and abilities.
  ➢ Advantageous to have ICT knowledge for personal use, communication purposes, training and expanding knowledge.
  ➢ To communicate, access information through Internet and email.
  ➢ Keep in contact with friends/family.
  ➢ Interests of finding out how a computer works.
  ➢ Wants to use training as a 'stepping stone to other computer courses.'

Learner Barriers:
  ➢ Fear in using computers.
  ➢ Fear of breaking an item that cost so much, seeing it as fragile and complicated.
  ➢ Lack of confidence in using computers; doubts in own abilities and skills to use computers effectively.
  ➢ Lack of access or opportunity to use computers; never had the opportunity or need to use a computer.
  ➢ Negative attitude toward technology, such as 'computers are only for the young' and 'things often go wrong with new technology.'
  ➢ Techno-phobic.
  ➢ Reluctance to touch a computer without direct supervision.
  ➢ Travel costs; the need to pay a travel expense is a barrier to starting or completing training.

➢ Undedicated tutors.
➢ If Jobcentres are uninformed of UK Online course offerings, could lose prospective learners.
➢ Not enough support and guidance in early stages of using a computer.
➢ Visibility difficulties due to icons being small.
➢ Inconvenience/distance of learning site location.

Centres' ability to overcome learning barriers:
➢ Increase awareness with effective advertisement by stressing that programmes would be a good starting point for those with limited or no ICT skills.
➢ Advertise through the local paper, Jobcentre, TV or friends/family; local papers are more effective for an older crowd, TV is more effective in reaching a younger crowd.
➢ Subsidize travel costs.
➢ Training staff taking a personable and helpful approach.
➢ Tutor facilitation so learners can follow 'how or why something had or had not worked.'
➢ Use ex-participants to assist in teaching the course, they can relate to beginners.
➢ Tutors should either formally or informally discuss progression beyond UK online so learners are aware of what their options are to move on to.

Flexibility
➢ Teaching methods: the flexible training method allow participants to go at their own pace, and open learning allowed participants to fit the training in with other commitments.
➢ Learners place value in having flexibility and accessibility in all aspects of delivery and especially providers' capacity to tailor provision.
➢ Providing learners choice of course, style of teaching, times of when and how long to complete course.
➢ *Flexible **Access** to training facilities to practice outside teaching hours.
➢ Access is important for building and maintaining learner skills.

Feedback and Support
➢ Feedback was an essential element of the course support provided to students and was experienced at various levels.
➢ Greater levels of supervision for less confidant learners.
➢ Regular feedback and monitoring to encourage motivation and fuel the will to complete the course.
➢ Tutors discuss progress with individuals on a regular basis.

➢ Providers should take the time to look at the relevance of the exercises in the workbook and make them 'learner friendly.'
➢ *Training manuals and worksheets were valuable, allows for practice outside the training centre.
➢ Introduction to the computer at the front of the workbook to help explain computer terminology.
➢ Reassurance that the course will start at a beginners level and that 'anyone' is allowed to take the course.
➢ Provision for specific groups only, e.g. women.

Peer learning/enhance social edge of learning.
- ➢ Peer learning and support was felt to be important to learning, promote an interactive environment.
- ➢ Avoid use of shared facilities to foster learner interaction and socialization between participants.
- ➢ Peer help can be faster than tutor help.
- ➢ Relaxed, friendly, and comfortable atmosphere in training centres and place for learners to socialize e.g. café.
- ➢ Providers reported adopting a range of methods to overcome participants' fears and low confident: use of mock examinations, attendees unknowingly sitting the exam, and then being told afterward, and ongoing modular exams.
- ➢ Offer Taster Sessions to Course.

Taster Sessions:
- ➢ Have a full induction, involving introduction to very basic concepts, such as switching on the computer and using a mouse.
- ➢ Is a good introduction to the type of learning and the type of support learners will receive, thereby enables learners to make informed decisions about whether to pursue the course.
- ➢ Informal assessments reduced 'drop-out' from courses as people are placed in the more appropriate course.

Learner Expectations:
- ➢ Use of Email and Internet.
- ➢ Finding out how a computer works.

Learner Training:
- ➢ CLAIT, levels 1&2 were the most common type of course that UK online participants went on.
- ➢ The most common areas covered were: word processing, spreadsheets, computer basic and databases.
- ➢ *Email and Internet were not covered, many learners were disappointed by this.
- ➢ Open learning was the usual method of delivery. This suited the overwhelming majority of individuals, many of whom had other responsibilities.

Other important points:
- ➢ Without access to a computer at home or at work the impetus gained while on the course in terms of developing people's confidence could wear off in a matter of weeks.
- ➢ Home access is clearly a key factor in sustained use.
- ➢ Advice during and after the course.

Policy/Best practice for course delivery:
- ➢ National campaign did not tend to encourage unemployed participants; local initiatives and referrals from Jobcentres were seen as more effective in targeting this group.
- ➢ Clear vision of the UK online branding.

- ➢ Create closer links between providers to share best practice.
- ➢ Give providers prior notice of national campaigns so that they can combine it with local marketing and employ trainers to deal with the surge in demand.
- ➢ Provide resources for course providers for their own marketing and assistance and guidance from a central resource.
- ➢ Resources for voluntary providers to hire administrative staff to deal with enquiries.
- ➢ Increase subsidies to increase the allotted time (30-40 hours), which is an insufficient amount of time for learners with limited experience using IT.
- ➢ Integrate UK online with life skills and basic literacy and numeracy e.g. include production of a CV, jobsearch support.
- ➢ Include Internet and email as part of the training.
- ➢ Simplification of some of the course material to meet client need.
- ➢ Supplement the course with basic skills training.

Department for Education and Skills, "Harnessing Technology: Transforming Learning and children's services", March 2005
http://www.dfes.gov.uk/publications/e-strategy/

Harnessing technology is the Government's five-year plan to harmonise services in order to come closer to creating a digitally inclusive society. The strategy follows a move to promote digitised public services coupled with a body of evidence that suggests that the use of technology improves the learning experience and promotes better results amongst both adults and children. The outcome should be a more 'personalised service' for the citizen through the use of digital and interactive technologies.

This strategic approach aims to transform teaching and learning, engage those learners consider to be 'hard to reach', improve services through the use of technology, share practice and experience and create a tailored approach to education. This is to be achieved through development of the following:

> ➢ *"An integrated online information service for all citizens*
> ➢ *Integrated online learning and personal support for children and learners*
> ➢ *A collaborative approach to personalised learning activities*
> ➢ *A good quality ICT training and support package for practitioners*
> ➢ *A leadership and development package for organisational capability in ICT*
> ➢ *A common digital infrastructure to support transformation and reform*"

Technology is seen as a motivating factor for uninspired learners and a tool for reengagement for those currently disengaged, whilst also a means of stimulating further self-directed learning for existing learners. According to the strategy, each learner should be able to have more ways to learn, a greater range of subjects, flexible study opportunities, tailored means of trying new learning, a personal electronic repository to store your learning history and support for progression.

Actions:
> ➢ Put everything online (services, education, courses etc.)
> ➢ Use Internet as a better used channel of delivery for staff
> ➢ Development of My Guide (Cybrarian) – the emphasis within this document is on disability (and reluctant users), although disability was not originally the primary purpose of the tool.

At learner level; Directgov is seen as a potential conduit for better services and learning offers, supported by a workforce web-portal for IAG on e-learning. Better opportunities, especially for socially excluded groups, will be supported by portable assessment and access to a personalised online learning space and e-portfolio.

At practitioner level; content strategy will be put in place and e-learning will be embedded into work based learning in order to create a more coherent approach to e-learning within post 16. This will be supported by a drive towards enhanced pedagogic skills and access to ICT for practitioners and an online service for e learning.

At management level; leader, will be "equipped to lead adoption and effective use of IT" (13) through existing monitoring mechanisms and support on e-learning strategies.

In terms of infrastructure; all of the sectors will be equipped with *("relevant access to")* broadband and it is made clear that ACL will not be the poor relation to 'institution-based learning'. This will be supported through regional support structures to help support the development and embedding of e learning.

Department for Education and Skills, "21st Century Skills: Realising our Potential", DfES White Paper, 2004
http://www.dfes.gov.uk/skillsstrategy/_pdfs/whitePaper_PDFID4.pdf

Realising our Potential is a proposal that builds upon the 2003 Skills strategy and sets out Government plans to address the skills deficit in order to enhance the national economy, improve individual skills and therefore increase personal fulfilment (this is based upon the notion of the interdependence of social justice and economic success). The intention of the proposal is threefold:

- Make the needs of employers central to the delivery and design of training
- Support individuals in skills acquisition in line with their needs in order to promote and enhance quality of life
- Reform supply to better meet the needs of employers and individuals

The emphasis is upon identifying and promoting sector skills, engaging people into learning and offering clear progression for individuals, ideally into employment (for example from 2006/07 level 1 and 2 qualifications will be free to those that don't currently have them).

In terms of Basic IT skills, this document is the first official definition of ICT skills as "a third basic skill alongside literacy and numeracy" (13).

Department for Transport, Local Government and the Regions (written by the planning exchange), "Using ICT to help achieve regeneration objectives", 2001
http://www.odpm.gov.uk/stellent/groups/odpm_urbanpolicy/documents/page/odpm_urbpol_608054.hcsp

This good practice guide was the result of six seminars (Sept & Oct 2000). Several case studies are included, as are explanations of what is meant by ICT and regeneration. Little reference is made to the specific skills that project participants acquired, although accessibility of information and communication seems to be the overriding issue (there is no direct reference to technology related literacies).

Projects and cited activities include:
- **IT for the Terrified (Wedmore, Somerset):**
  Prior to commencement, the project conducted a community consultation in order to establish the target audience and highlighted elderly users (esp. those who had no, or little, experience of ICT). The project offered basic introduction to IT and 'grew' trainers from the participant pool.

- **Connections (Barton Hill, Bristol):**
  Managed by the University of the West of England, the project developed a multimedia centre and promoted use of ICT within the settlement for use by voluntary and community groups.
  Consisted of "Hands-on" modular courses, for example "introduction to the Internet", "Web-authoring workshop" and "Introduction to digital imaging" (using Photoshop). "Internet planning workshop", "Managing IT effectively" and "Information systems Healthcheck" we are also delivered, the latter of which was a surgery to identify and deal with arising issues.

- **The Click Centre (London Borough of Waltham Forest)**
  The project focussed on young people (14-25) and the local community in general. A dedicated training centre was established and learners could either train in general ICT skills, gain ICT support for business operations, gain employment/careers advice, or gain nationally recognised ICT training qualifications. "Cybersquads" of young people were also established to help expand ICT into the community. Community involvement and ownership were critical to success.

- **Kington Connected Community Company**
  This project was based upon a 'drop-in' centre model and offered Internet access, tutor-led training IT courses for both complete beginners and more advanced users. The centre also functioned as a UK online and Learndirect centre.

Essom, J. "Widening the world with wireless laptops: The impact of the wireless outreach network initiative on the community", NIACE, 2004

In 2002, NIACE was commissioned to distribute funding through the Wireless Outreach Network (WON) initiative. The DfES funded the initiative, which involved adult and community learning organisations bidding for funds to purchase a wireless network of laptops in order to support socially and economically disadvantaged adults. The resulting projects were monitored and a series of case studies were drawn out in order to assess impact.

Learning content:
- Unspecified computer courses
- L1 New CLAIT
- Project-designed beginners ICT/IT sessions
- OCR CLAIT
- To deliver other types of learning such as crafts etc.
- Use of the Internet in support of other learning activities
- Lunchtime taster sessions
- Single aspects of computing such as excel, word-processing use of email etc.
- Digital imaging workshops
- 20 hour in-house ICT courses
- Desktop publishing
- Film and video workshops
- Database training
- Use of College Learning website (VLE?)
- learndirect

Learner motivations:
- Helping children with schoolwork
- Sending email to friends and relatives
- Keeping in touch with new technology
- To improve confidence
- To dispel fear of technology
- Centre staff convinced the learner
- To use Internet to learn more about own interests (such as finding recipes in Hindi etc)
- The tutor was prepared to take the laptops into the learner's home

Enabling factors:
- Learners did not like to travel far to access learning
- Peer support/mentoring works well
- Small groups of learners
- Word-of-mouth marketing
- |Local advertisement of courses
- Individual progress reports to monitor achievement
- Allowing the learners to direct the content and helping them to identify their own needs
- Supportive, helpful tutors prepared to go the extra mile

Everybody Online Project:
http://www.citizensonline.org.uk/everybodyOnline

Launched August 2002, everybody online is a joint project, between BT, Microsoft and Citizens online.
The project has targeted several disadvantaged communities across the UK including; Audley, Bettws, Clydach Vale, Croydon, Glasgow, Rhyl, St Stephen, Walker, where levels of access and use of ICT were amongst the lowest in the UK, with the aim of increasing access and use of technology in those areas through the employment of 'champions' or project officers that coordinate efforts in the area, promote, research and support the use of technology. (*The project has recently claimed that the digital divide within those areas can be closed for £3 million*).
Results have indicated a significant increase in Internet usage across many of the funded projects in addition to an increase in community cohesion, employment prospects and confidence amongst the participants.

Croydon bears the closest demographic and geographic profile to the PENCEIL community. Three case studies were available for this area, for example, the Bust a Move project that invited homeless people and refugees to make music whilst coming to understand something about computers and building basic skills. The project engaged 34 participants, from 13 different ethnic backgrounds and was designed to help members of the community to overcome barriers that they experienced in relation to computers and the Internet. The close connections with supportive initiatives such as Surestart and UK online, the use of intermediaries, and effective signposting within the project appeared to be critical factors for success.

Foley, Paul and Ximena Alfonso and Shazad Ghani. "The digital divide in a world city" <u>Greater London Authority</u>. June 2002.

In London, there is a currently existing digital divide. The divide is one that consists of not just "have and have nots," but it is a divide between high, medium, low and non-users. The people and communities that are currently low and non-users of ICT, approximately 49 percent, are predominately from disadvantaged socio-economic groups, such as low-income, low-levels of education, low skilled jobs, unemployment and lock of technological or computing skill. The most frequently occurring reason of non-use is a 'lack of interest,' which is an issue of "lack of awareness, understanding and acceptance of ICT." These socio-personal traits heavily correlate with people of lower levels of education and are the greatest barrier to ICT adoption.

The suggestions made in *The digital divide in a world city* to enhance ICT adoption focus on increasing awareness among non-users of the benefits of ICT. Access is a prerequisite to ICT use, but unless positive socio-personal traits are fostered the availability to ICT will remain in idle use by disadvantaged groups. Greater London Authority recommends additional levels of research, concerning reasons behind non-use and advantages gained by ICT use among socially excluded groups, in order to develop policy to boost interest and use.

Learning motivation:
Low-levels of learner motivation are most apparent in socially excluded groups and people of lower socio-economic levels, such as low-income, low-levels of education, low skilled jobs, unemployment and lack of technological or computing skills. There is a correlation between socially excluded groups and negative socio-personal factors towards ICT adoption, which include attitudinal and behavioural factors such as levels of interest, awareness, understanding and acceptance.

Low-levels of education seem to be a major barrier to ICT adoption. People of low education levels lack the required basic literacy skills of reading and writing and the basic computing and technological skills needed to use ICTs. In addition, people that have previously rejected formal education are likely to be reluctant towards any type of ICT training.

Ability to increase learner motivation suffers by non-users lack of awareness of how ICT can "improve the quality of their life." Lack of awareness is a common theme among non-users; as literature indicates "socially excluded individuals with low-levels of education and low income levels had little awareness of ICTs and little knowledge of ICTs and the way in which it could enhance their quality of life." Four out of ten non-users lack an understanding of how ICT may improve the quality of their life.

Raising learner motivation will be a result of policy and promotion of the benefits of ICT, however research has yet to be conducted around the specific benefits derived by socially excluded groups from using ICTs. If individuals have a positive attitude they are more likely to try ICT technology and subsequently might be more likely to use ICTs in their daily lives and reap the associated benefits (44).

Suggested Research for increasing learner motivation:
- Investigation of ICT patterns of socially excluded people.

Motivations and underlying rationale that encourage socially excluded groups to use ICT.
- Benefits derived by socially excluded groups from using ICTs.
- Knowledge of the level of awareness of different socio-economic groups or amongst socially excluded groups.
- An investigation of the rationale underlying this lack of interest, motivation, and belief of irrelevance of ICT to their life.
- The willingness of socially excluded groups to use public access points.
- All users should be asked about how they first used ICTs and how their use of ICT at public access points differs from their use of ICT at other locations.
- The attitudes of socially excluded groups to ICT skills training.
- Motivations and benefits of ICT training amongst socially excluded ICT users in access centres and training initiatives.
- Examine how experienced and 'new' users from socially excluded groups use ICT.
- 'New' users should be monitored to identify how using ICT is beneficial to them.

Policy:
The Greater London Authority has developed a model for ICT adoption including: awareness, access, skills and training, use, and impact.

They state that "awareness is a fundamental stage within the adoption model and the policy making process because it is a precondition that precedes all other stages in the model and it is a catalytic factor responsible for initiating the ICT adoption process" (45).

In the access, skills and training portion of the model it is important that "when non-users first visit a public access centre or training course they need to be guided as quickly as possible to web sites, or information sources that are pertinent to their needs or requirements. If they find nothing useful during an initial or early visits their motivation to continue is likely to be reduced" (40).

Future Foundation Projects, "The Digital Divide in 2025: An independent study conducted for BT", December 2004

The Digital Divide in 2025 was a report commissioned by BT as part of their corporate social responsibility plan in order to understand the digital divide and predict its form over the next twenty years. The research consists of a literature review drawing together current knowledge; expert interviews and future forecasts based upon existing data and models to predict trends.

The report defines digital exclusion as "not having access to the Internet at home"(2). Based upon this, approximately 50% of the population is currently (at time of going to press) digitally excluded. Two key obstacles are considered to affect digital inclusion; access, to be understood as encompassing cost, disability; and skills issues, and engagement due to lack of perceived benefit.

The research concludes that although access issues exist, engagement is the critical factor and will continue to be so in the future. The debate over whether the digital divide is an enduring concept is a debate between those classed as 'Digital optimists' who believe that technology will evolve to the stage where special skills are not required and those classed as 'Digital pessimists' who contest this.

The report focuses upon the importance of technology rather than content design as a benefit to the end user, but accepts that until the Internet is made indispensable, or a necessary commodity (comparable to a refrigerator for example), then engagement will continue as the overriding barrier to universal uptake. This notion is problematic as they predict that 2025 will see severe consequences resulting from digital exclusion, as technology becomes ubiquitous in line with increased societal expectations.

Suggested actions:
 The report suggests that increased marketing of ICT skills (and Internet) will be important in addressing disengagement. Additionally, the design of technology (and arguably content) must be informed by those currently disengaged. "Technology needs to understand the disengaged"(4). Affordable technology, simplicity and user-friendly interfaces are seen as the future and remaining access issues should be dealt with through the intervention of social programmes.

> *"36.2% of the digitally excluded population, or 17.2 million adults, are currently digitally excluded and living above the poverty line. This raises important questions about the interaction between income and access to digital technologies, and highlights digital engagement, that is interest, motivation, skills, relevant content as key consideration in the debate around the digital divide going forward."*(8)

The report includes some mention of underpinning literacies (12) however it is only in passing, through quotes from Loader and Keeble; *functional, occupational, information and adaptive illiteracies.*

Although, generally, it is considered that problems of access will decrease as well as alter in nature, access for disabled individuals is set to become an increasing issue, as the ageing population will adversely affect numbers of disabled users in the UK.

Georgiou, G. "General IT Literacy: A research report of a survey of the British population on computer usage", <u>The British Computer Society,</u> 5 September 2004

This report was conducted (by TNS) across a representative sample (2,180) of the general population of Britain. Its' purpose was to investigate IT literacy levels among British adults (16+).
The survey was conducted May – June 2004.

Results:
- Women were less likely to use computers than men (although the divide was not great).
  78% and 71% of women had used a computer at some stage of their lives.
  Only 39% of the 65s were represented within this group, compared with 95% of 16-25.

- Most people (of those who had used a computer) had used it for access to the Internet (73%). 68% had used email and the same figure for WP, followed by computer games (47%) and spreadsheets (46%). Only 3% of those who had used a computer claimed to have used it for work.

- 59% of respondents had access to a computer at home and 31% had access at work. Home access was cited by 70% of those aged 54 and below and drops the older the age group.

- "No access to a computer" was cited by the 65+ group (64%), likelihood of access increased with age.

- Mean average hours per week spent using a computer were 10.

- 5 out of 8 people have never undergone any formal training to help them to use a computer (62%). Of those who had received formal training, half felt that it had helped them to get a job/promotion.

(The following results were collected on a sliding scale of agree/disagree)

- 82% of respondents agreed that computers were beneficial to society.

- 72% agreed that they were concerned about the amount of immoral materials on the Net.

- 60% agreed that they were confident computer users

- 54% agreed that they found technology complicated

- 36% felt that if a computer went wrong they would be unable to solve basic problems.

- Approx half of the population in each case felt that they were/weren't left behind by rapid advances in technology.

- 43% felt that they would/would not value further training

- 47% were not confident in the security of using the Internet for financial transactions.

Gorard, Stephen and Neil Selwyn and Sara Williams. "Must Try Harder! Problems Facing Technological Solutions to Non-participation to Adult Learning." British Educational Research Journal. Vol. 26, No. 4, 2000.

Must Try Harder! Problems Facing Technological Solutions to Non-participation to Adult Learning investigates the potential success and challenges of the UK governments' attempt to create a learning society and combat social exclusion through "facilitation of easy access to learning sources" and the use of ICT. The article uses The Coleg Digidol of Whales as a case study of the use of ICT as a "means of widening access to learning opportunities for those currently excluded from participation in lifelong education and training" (509). The findings were consistent that ICT has not been able to attract educational non-participants for reasons of lack of access, lack of competitive cost, remaining institutional barriers, ineffective content targeting, communication obstacles, and long-term socio-economic background characteristics. The evidence shows that incorporation of ICT in educations isn't doing anything other than "appealing to those who are already very likely to be participants in adult learning" (516) and the inequalities of access to technology potentially "look set to exaggerate in some ways rather than alleviate 'traditional' barriers to participation in lifelong learning" (517).

Learner Motivation:
Current non-participants in formal education may not be particularly affected if opportunities increased, because they are non-participants for reasons that concern long-term socio-economic background characteristics, such as influence of family (512).

Policy Motivation:
The benefits of widening participation in lifelong learning and technology-based learning are "potential economic benefits of upskilling the workforce" and way of combating social exclusion (507).

Problems with technology-based learning:
There are problems to overcome, before participation in lifelong learning can be widened through ICT. Access to on-line learning should be viewed in terms of two distinct types: whether groups have access at all and the hierarchy of access amongst those that do. Beyond the simple question of access to the Internet is the question of levels and quality of connectivity in terms of the capability and distribution of the access concerned (518).

A barrier to participation in learning is its cost; ICT-based provision may not eliminate cost, but rather alter costs. The cost of equipment, communication and insurance to participate in learning digitally is unlikely to attract many new comers of disadvantaged socio-economic groups.

Problems of transport and other institutional barriers remain. Technology may alter but not necessarily overcome many of the situational and institutional barriers to learning (510).

Technical problems will remain for those resident in sparsely populated areas, or in awkward terrain.

Even when access patterns change, so will the technology required for access, so it is likely that many of those already excluded may still be playing 'catch-up' for the foreseeable future (511).

A virtual college movement, which is based on information transmission, may not lead to better reasoning skills, creativity and the ability to value divergent cultures (514).

Website content needs to be geared towards the appropriate segmented market, non-participants of formal education, in ways such as multiple language sites.

Hall Aitken Associates. "Community Access to Lifelong Learning centres evaluation: Interim report on survey results", October 2004

Hall Aitken consultants were commissioned by the Big Lottery Fund to conduct an evaluation of community Access to lifelong learning centres. The key objective of the funding was encouraging adults into learning with particular emphasis on ICT. Nine hundred centres across the UK were funded through the New Opportunities Fund (now the Big Lottery Fund); the final report is due for publication Summer 2005.

The evaluation was based upon the longitudinal study of individual learners, supplemented by surveys conducted amongst managers and learners. The questions asked appeared very similar to those used to evaluate the UK online centres (This would explain the similarity between findings).

This first year of fieldwork (2002-2003) found that increased confidence amongst learners is the single biggest impact across most of the CALL centres (91%). Learners in this case tended to be those with poor prior educational experiences, lone parents, older people, those with no/low qualifications and people returning to learning.

Learner motivations
The survey indicated that over 70% of users came to the centres to learn to use a computer, followed by the sending of emails to friends and family. Longitudinal studies discovered that meeting people, learning new skills, improving skills and confidence, increasing likelihood of employability/progression, re-entering learning and developing skills to help others were also motivating factors.

Most of the centres offered a blend of drop-in learning and formal courses, and evidence suggest that although learners may have originally attended the centre for other community learning, the ICT suite would coax them to participate in ICT, but only when they felt sufficiently motivated/confident to do so. The report suggests that this integration of traditional community education and available technology is a primary strength of community provision.

Support and transfer of skills:
98% of learners felt that the centre staff were helpful and supportive, offering one-to-one tailored support. This approach, combined with own-paced learning, peer support and an informal environment led to a positive and conducive learning experience for the learners that contributed largely to the success of the centres. Learners cited increased confidence and further research indicated that this confidence impacted positively on learner attitudes to progression. The newly acquired ICT skills were also transferred into the learners' lives; Word, Excel and Publisher in particular were cited as being used to support coursework, work and hobbies.

Despite this however, it was noted that many of those who attended the centre already had access to PCs and the Internet and therefore were not addressing the motivations or needs of the severely digitally excluded.

Policy:

It was noted that there was little evidence available as to the barriers experienced by the most socially excluded groups and that the identification of these was a policy imperative.

Hall Aitken Associates. "Evaluation of CMF Funded UK online Centres - Initial Report", Research Report 368, July, 2002

The initial evaluation report of CMF funded UK online centres aims to assess the extent to which centres have met the objectives of UK online through means of a first user survey, centre manger survey and supplemetary case studies. UK online centres were intended to bridge the gap between "those in society who have access to and are able to use ICTs competently, and those who do not."

The report is limited due to the slow start-up of the programme caused, in many cases, by delays in receipt of funding and/or other start-up issues. Overall, the report suggests that although 60% of respondents had access to a computer (equal to national average at that time), very few of them had the skills to use it. There were also reported high levels of potential Internet access; fewer than 20% only had access to the Internet at the centre. The report also suggests that they have been unsuccessful in attracting individuals for excluded groups and therefore the figures that indicate poor ICT skills may obscure a wider skills gap that centres have yet to bridge.

- An increase in more confident computer use is reportedly the greatest impact of the centres;
- Most users initially came to the centre 'to learn how to use a computer', followed by 'to send emails to friends and family'.
- Most users heard about the centre by word-of-mouth
- Most users come regularly to the centre to attend a computing course at a set time.

The case studies within the report are limited, however where the centre is up and running, most centres offer both informal ICT courses for drop-in users and some form of structured, accredited training.

Hall Aitken, "Case Studies on Good Practice in ICT Projects", for Scottish Enterprise Digital Champions, September 2002

The publication is a good practice guide commissioned by Scottish Enterprise Digital Champions. The types of examples included are housing associations that have helped residents get online, ICT centres including online learning centres and community portals. The aim of the guide is to inform ICT practitioners/project workers of other, similar activities.

The ICT centres section of the guide described 3 types of provision; a fixed location centre, a college-run mobile centre and a fixed/outreach laptop-based centre in a rural location.
Points of good practice in relation to IT were:

- ➢ The offer of facilities in an enabling environment designed to suit and develop the needs of the learner and the interests of the community
- ➢ The offer of beginners and intermediate courses in a flexible format alongside informal drop-in facilities
- ➢ Courses are often offered on a drop-in basis.
- ➢ Learners are invited to work at their own pace
- ➢ The drop-in nature allows for a more sociable environment and encourages various uses of the centre
- ➢ Enthusiastic staff made the difference for the learners

The mobile project (run from a mobile classroom) offers 2 ¾ hr sessions, up to 3 times a day during college term time. They offer CLAIT and basic IT (computers for the terrified). In almost all cases, basic IT led to CLAIT.

The partly mobile project ran a range of taster sessions, basic computer skills courses and introduction to the Internet and email. Courses are tailored to the learners, dependant upon the interests of the class on a week-to-week basis. For example in one instance, learners wanted to try web design and ended up producing basic web pages. Other groups have asked for training around Internet shopping and banking. The project also offers transport to and from courses or takes the equipment to the learners.
The project has an agreement with the Unique Pub Company and user satisfaction within those courses is high.

Factors considered essential for success were:

Effectively **targeting** user groups so as not to try to be all things to all people through:
- ➢ Development and implementation monitoring systems, for example, one page entry form, basic attendance signatures, record of achievements.
- ➢ Regular review of project achievement in terms of its ability to reach the target group
- ➢ Find a way of collecting and synthesising users' ideas of what they would like to learn

Clear **marketing** strategies should be in place:
- ➢ Signage

> ➤ Word-of-mouth
> ➤ Open days
> ➤ Outreach activities for target groups
> ➤ Link to external organisation such as the employment service
> ➤ Develop private sector partnerships to gain access to commercial venues

Consider the **technical** side of things:
> ➤ Budget for technical support (preferably internal)
> ➤ Ensure high bandwidth to support the learning experience in environments where there are a high volume of users

Other considerations were:
> ➤ Flexible, responsive timings to suit the learners in accordance with demand
> ➤ Mix provision (flexible, drop-in, programmed, specialist etc)
> ➤ Use a wide range of technology
> ➤ Promote peer-mentoring
> ➤ Provide basic skills support
> ➤ Ensure there are enough staff to offer one-to-one support
> ➤ Offer home support if possible
> ➤ Link to local agencies for effective signposting

Hall Aitken Associates. "Evaluation of Pioneer and Pathfinder UK Online Centres: Follow-up Study"*, Research report no.362, 2002*

The evaluation of pioneer and pathfinder UK online centres was commissioned by the DfES in order to ascertain the success of six pioneers projects and thirteen pathfinder ICT centres that were to herald the subsequent rollout of UK online centres across the UK. UK online centres were intended to offer first rung ICT provision ranging from a taster or drop-in session to pre-scheduled, accredited courses, with particular emphasis upon excluded groups and a secondary goal of basic skills development. The report is based upon a longitudinal study and intended as an update, one year on, to establish the distance travelled towards UK online objectives and the benefits experienced by centre users.

Increased confidence amongst users is indicated consistently through the report, although there is a feeling that the respondents were led in some respects, indicated by language such as 'respondents agreed that' etc. There is also an indication that the responses obscure the opinions of more excluded users and that success is measured entirely against economic rather than soft outputs. With this in mind, a survey of early users indicated that involvement in the community (33%), progression to further or higher education (31%) and getting a job (21%) were cited as areas in which the centre had helped, or could potentially help, the learners.

A greater number of users within the centre have home computers, an increase of 30 percentage points. This is considered to be 20 percentage points higher than the national average increase over the same period. Reinforcing the findings of other similar reports, the centres did not achieve as much with the most socially or digitally excluded, despite being considered successful overall. The local situation of the centres, the informal atmosphere, and the supportive nature of the staff were all cited as critical to overcoming barriers to learning with excluded groups.

 Word-of-mouth was considered to be the most effective form of marketing and centres used this principle to improve their networking with local groups and links with external and private organisations. Mail-shots were also cited as effective, although once the UK online brand became familiar, simply walking past the centre and seeing the branding was more likely to attract potential learners than leafleting. Learner motivation for using the centre was primarily (82%) to get advice about using computers, or learning how to use a computer (50%).

In terms of learner motivation, Word-processing and Emailing friends were the most popular choice of activities amongst centre users; however, despite the economic emphasis of the report, looking for jobs was an infrequently cited activity.

Several brief descriptions of the pioneer and pathfinder projects, generated from the managers' survey, are available towards the rear of the report. The following is a brief summary of provision within the centres:

Larkman Technology Centre:
Larkman centre offers an outreach service in addition to their static learning centre provision within their locality.

They offer IT2, CLAIT and learndirect mainly and note that most people select 'taught ICT courses with tutor support'. Drop-in access is also offered but this is secondary to the formal courses.

Head to Head Training:
This London-based project offers both drop-in and learndirect courses. Their learners prefer using online, self-directed learning in preference to taught courses.

Internet Exchange:
This centre offers drop-in Internet access and 'in-house designed self-paced training packages' which are mainly Microsoft Office based.

ENTA:
The centre is located in an areas of high deprivation in Birmingham. They work in partnership with South Birmingham College.
The staff market their centre by door-knocking, which has proven a successful approach and their most popular provision has been CLAIT, learndirect and ECDL.

EETAC:
This centre blends it's flexible approach to learning with the technical expertise and experience of the local college. The centre offers self-paced courses and tasters and learndirect and markets its provision through a prospectus, posters in local shops and the employment service. Word-of-mouth is also considered critical to its success.

Knowledge Base Ltd:
Thus centre offers workshops on various topics (not specified), Internet drop-in, tasters and self-paced ICT courses. The receptionist ensures that learners are booked in for their next session each time they come to the centre to try to ensure that people come back.

Learning Freeway:
This centres offers 2 hour sessions due to high demand and insist that users have an interview. Specialist and foundation courses are offered, which run for 5 weeks, in addition to self-paced courses such as Webwise, DTP, basic skills and job-searching and accredited courses. The project was planning "Tupperware parties" with laptops in the next term.

MaTReC:
This centre runs time-slots of 2 hours to better enable them to meet the high demand for their services. Learndirect has been offered, however, users preferred a classroom environment and so in-house OCN learning materials were developed to meet learner needs. Other courses include a 10 week introduction to computers, advanced DTP and Internet use. Drop in Internet access is also offered to learners as well as RSA and City and Guilds courses. Assessment is optional so as not to daunt learners.

In addition to the listed provision, projects also offered information, advice and guidance, support for additional needs such as dyslexia and basic skills assessment and support. There was no formal tracking of users digital exclusion or illiteracy levels, however centres requested personal details in most cases. Less that half of responding centres kept training progress records or course evaluations, making

impact difficult to assess.

Hills, S. "Connected Community Organisations: Can they help to overcome the digital divide?" SustainIT, January 2004

Funded by BT, the Connected Community Organisation report examines the extent to which community centres that access the Internet via broadband can help to bridge the digital divide. Most respondents to the research (16) were recipients of the BT Community connections initiative (which distributed free hardware). 23 organisations participated overall, all of which had installed broadband in 2002-3.

The report concludes that the divide can be reduced through offering Internet access and training within community locations, especially for those individuals who cannot afford (or perceive that they cannot afford) Internet access at home.

The report states that Broadband can also prove beneficial for the organisations/centres themselves. Various impacts includes:
- Increased usage by almost all organisations (and by learners in 50% of cases)
- Broadband facilitated use of the Internet
- Broadband assisted in the removal of social barriers occurring between learners and impacted (significantly or very significantly[13]) on the community.

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[13] Use of the term 'significantly' as in the report

Loader, B and Keeble, L. "Challenging the Digital Divide: A literature review of community informatics initiatives", Joseph Rowntree Foundation, 2004

Funded by the Joseph Rowntree Foundation, the (international) review aims to distil current knowledge about the digital divide, existing research and the effectiveness of past social inclusion initiatives in order to offer a comprehensive document aimed at policy makers and practitioners to draw together what is already known and identify potential lacunae. The focus of the report is to identify the value of ICTs for social and economic regeneration.

The report addresses Physical access and connectivity, computer skills and literacy, economic regeneration, civic participation, diversity and policy.

Loader and Keeble argue that computer literacy skills are secondary to physical access to ICTs and suggest that previous educational attainment, perceived relevance; community learning environment and innovative pedagogy are all potentially influential factors in the success of computer literacy programmes.

The report suggests that prior educational experiences dictate the likelihood of the learner to access the Internet (i.e. the better educated the individual, the higher the likelihood - 13). The report considered various evaluative/good practice reports within community education and noted the following factors as being conducive to learning:

> ➢ A community environment setting – to disassociate from poor prior-educational experiences, non-threatening etc.
> ➢ Use of existing social networks – to help embed ICT in every day life
> ➢ Learner-centred approach to teaching (supportive, encouraging staff)
> ➢ Use of multiple technologies in support of learning (classroom and self-directed activities)
> ➢ Low cost access promotes use
> ➢ Learning to occur at a speed/level identified by the learner
> ➢ Consultation with the community to establish need
> ➢ Prior education is cited as predisposing the learner to effectively engage with technology

The report suggests means by which community education might be made more effective, the following approaches were considered particularly noteworthy:
> ➢ Effective community learning must be informal and innovative compared to 'traditional training (14). Consideration of poor prior educational experiences
> ➢ Content should be relevant to learners own life experiences (often not the case in course design, which is funding led or managed). One should consider the learner as the 'content creator' (15)
> ➢ Learning by stealth (the use of a game to introduce learners to net-based communication was cited). Mapping learning outcomes in this case proved problematic
> ➢ Differentiation is key to delivery of effective courses
> ➢ Focussing upon access to timely and relevant information, via the Net, for vulnerable groups

➢ Peer mentoring approaches are discussed, however the effectiveness is overlooked
➢ Using special guests from a diversity of backgrounds, who would otherwise by inaccessible to the learner, stimulated interest amongst target groups

The report noted the importance of ICT to enhance social inclusion. This may only be realised however if other underpinning literacies are addressed such as functional, occupational, political, information and adaptive illiteracies. Informal learning is also widely considered to be the most effective approach to meeting the needs of learners with poor prior educational experience, however there is little quantifiable evidence to support assertions of impact or effectiveness.

The report contains considerable text in relation to e-government and e-citizenship, although this does not mention basic IT skills as such, it does note that unless the current inequalities inherent in the digital divide are addressed, e-democracy will simply serve to reinforce existing inequalities.

The report covers excluded groups and encouraging use of new technologies, which provided interesting insight.

The report concluded that community informatics projects did not adequately address the needs of those who are poorly educated, as they tended to attract affluent, better-educated individuals, already familiar with ICT. There is also some question as to whether these initiatives have challenged social inequalities in a meaningful way.

Office of the E-Envoy. "UK Online Annual report", 2002
http://archive.cabinetoffice.gov.uk/e-envoy/esummit-ukoannrep/$file/indexpage.htm

The goal of the Office of the E-Envoy was to ensure that, by 2005, those who wanted access to technology could achieve it. Subsumed within this broad aim was the need to raise awareness of the Internet, promote affordable Internet access and improve ICT skills and trust in the Internet.
Motivation, access, skills and trust are all key issues, however the report focuses mainly upon the Internet rather than supportive technologies; there is considerable mention of low motivation to use the Internet amongst those most excluded within society.

The report indicates that household access has risen consistently since the conception of UK online in 1999, and predicts that it is set to do so although it notes that Digital TV will most probably have an increasing role to play in terms of the type of access.

Income, age and geography remain key determinants of an individuals likelihood to have home Internet access, interestingly, there is a difference of 69 percentage points between those in the highest income bracket who have Internet access and those in the lowest bracket.

London and the South East have remained the most connected regions. Market forces, it seems, have forced the connectivity divide to narrow, as more consumers demand greater levels of bandwidth of their providers.

The report promises to embed ICT into lifelong learning opportunities (which should have occurred in the last two years) and promises the introduction of e-democracy beyond 2005, through numerous channels, including DTV.

A key barrier to this is motivation and the need to ensure that those who do not understand the Internet are not excluded from its benefits. In terms of future skills development, the report includes plans to fund the FE sector and schools in order to future-proof the next generation of citizens. In terms of Lifelong Learning, an Adult Learner's portal and a notional 'minimal offer' (that never saw the light of day as far as I am aware – ER) will support existing provision in addition to the integration of ICT into the Skills for Life Strategy. Coordination of initiatives is seen as critical to providing a coherent approach.

Policy Research Institute. "Wired up Communities Programme 2nd Interim Report",
July 2002

The wired up communities (WUC) programme seeks to ensure that the socially
excluded are not further excluded in terms of engaging with on-line consumer and
government service

The project provided a variety of technologies for use by residents (often into
residents homes) within various communities so that they could access the Internet
and online services. The long-term aim of the project is the promotion of social
cohesion.

The project increased home PC usage to (an estimated) 47% - national average 50%.
Despite this, 50% of participants did not use the technology, for the following
reasons:
  ➢ Reliability and specification of the technology
  ➢ Cost
  ➢ Individual motivation
  ➢ Lack of basic IT skills was considered to be a further influence to lack of use
     by the project

It was discovered that Basic training in the use of the technology, which positively
influenced the likelihood of use of the technology (albeit it marginally).

Prime Minister's Strategy Unit and the Department of Trade and Industry (joint report), "Connecting the UK: The digital Strategy", March 2005

The joint report sets out a strategy (spring 2005 to April 2008) that aims to position the UK as a world leader in digital excellence by addressing issues of social exclusion and the bridging of the digital divide. A review is scheduled for 2008 to map progress. The theme of the report is the use of the Internet to access information and broadly represents a departmental shift in emphasis from physical access, as a barrier to take-up, to individuals' confidence, skills, relevance and online security/crime as the key concerns of the future.

The report stages the UK as a world leader in terms of infrastructure (to be understood primarily as the widespread proliferation of broadband, digital television and mobile telephony).

The strategy aims to embed ICT into education, provide individuals with a virtual learning space and offer each learner who enrols on a Basic Skills course with a free email account. The report speaks of the need for a learner-centred approach, the invisibility of technology and the acceptance that individuals will adopt it when they perceive a need to do so.

"The message for us is that people will adopt new technologies when the value proposition to them as individuals or families is strong enough" (p. 21)
"By far the biggest barrier to accessing ICT is interest and motivation, followed be a lack of perceived need (53% of adults)." (p. 24)

Confidence and knowledge, total operating costs, complexity of PC packages and relevance of content (currently market driven) were cited as rationale for the digital divide. Benefits to adoption of technology were considered to be increased access to public services, improvement of employment prospects, financial and social benefits and the notion of online forums as a lifeline for those with debilitating conditions.

The strategy will also seek to reform the home computing initiative in partnership with the low pay commission, in order that those on lower salaries are not excluded, and improve access for people with disabilities (MyGuide). In terms of funding, an award will be created (The digital challenge) to encourage local authority partnerships to engage in innovative practice in the removal of barriers to Internet access, through whichever medium has the highest penetration, with an emphasis on regional approaches/coverage, sustainability and families.

Russell N et al. "Trends in ICT access and use", Research report no.358, <u>DfES</u>, 2002

The research is the result of a survey conducted amongst a nationally representative sample in November 2001. It was designed to assess the changes in attitudes and use of technology following a 2000 benchmark study that identified who had/did not have access to technology, who used/did not use it, and any relating attitudes, in an attempt to understand the digital divide.

The report covers various themes in ICT access and use, including awareness of ICT media, usage and ownership of media, perceptions of value, barriers to use and potential incentives to using computers or the Internet. The emphasis of the report is focussed around access to the Internet and basic IT skills. The survey identified the following themes:

- Awareness of ICT was high (both surveys)
- Usage of ICT had increased in terms of mobile phones and PCs. Time spent using computers had also increased.
- Women, older users (55+) and those from lower social grades (D/E) were less likely to have used the Internet. Affluence, youth and gender were factors that affected likelihood of use.
- Higher socio-economic groups were more likely to see the relevance of ICT to their employment. This perception of relevance had increased since 2000.
- 3 main uses of computers are email, Internet and work – this remained unchanged
- The biggest growth of hours spent on a computer was amongst D/E groups
- Cost is the main perceived barrier to computers (among interested non-users) and the greatest barrier to Internet use is no access of computer at home.
- Just below a third of respondents showed no interest in computers.
- Over half of non-users stated that there are no incentives to make them use computers/Internet.
- Fewer than 10% of interested non-users stated that free/cheap lessons would encourage them to start using computers. The greatest incentive was free/cheap machines/software.
- Interested non-users wanted to use the Internet for email, shopping and learning for own interests. Aspirational usage varied with age and socio-economic grouping.

Selwyn, Neil and Stephen Gorard. "Where now for ICT and adult learning?" <u>Adults Learning.</u> November 2004. pg 8-10.

The article *Where now for ICT and adult learning* makes similar points as Selwyn's other article *At home to adult learning*, because the information is based on the same study. Although, in this article Selwyn goes beyond making criticisms of the problems involved with creating a 'learning society' and the existing digital divide. Here he makes suggestions towards ways to involve and engage adult learners with ICT, such as shifting the government's policies and initiatives and taking an informal approach to education *with* ICT rather than *about* ICT.

Learner motivation:

The greatest challenge for policy-makers is tackling the issue of learner motivation. Many adults express no need for, desire for, or interest in learning and technologies. Policy makers and practitioners should "concentrate on making learning relevant to people's lives rather than assuming that such a drive already exists" (8). Data shows that many non-technological issues underpin many people's non-engagement, such as "poverty, housing, quality of employment, and reproduction of inequalities from generation to generation" (8).

ICT learning issues:

Transferability of skills: People are learning about ICT in courses and not being able to apply their knowledge later on.

There is the potential problem that adult learning, when using ICT and/or 'e-learning' in the classroom, may be just replicating poor practices (9).

Many people are more interested in learning through an informal manner than formal; this could be a positive point if adult educators and policy makers encourage and support informal learning.

Suggestions towards Policy:

Reshape formal educational provision away from learning about ICT and towards learning with ICT. Data shows that people learn best when using ICT for something else. Providing courses through the use of technology will help people to develop useful and relevant ICT skills.

A more efficient and cost-effective way of encouraging more learning to take place would be to shift the focus of policy and initiatives to encourage later participation in education whilst reducing focus on employability and office skills.

Policymakers could refocus their efforts away from using adult education centres as community sites of ICT access and develop systems of shared community resources which can be used where people are most likely to feel comfortable using computers.

Providing sustained encouragement and supporting adult learners to act in an evangelist way could be an important means of widening engagement with ICT and learning. (9-10)

Selwyn, Neil. "At home to adult learning" <u>*E-learning age.*</u> November 2004. pg 20-21.

     At home to adult learning looks at the potential problems of the governments route to developing 'learning societies' by asking five important questions that have to do with patterns of lifelong learning, level of access to ICT, how people are using ICT, how adults are learning to use ICT effectively, and what are adults learning by engaging with ICT.

Findings:

- Of the population using ICT, the tasks were primarily for producing documents, communicating with family members and searching for information and general knowledge, as well as teaching oneself how to operate the computer.
- Access to, and use of, ICTs made no difference to the statistical likelihood of someone being a lifelong learner.
- People's level of effective access to and level of frequency of ICT was heavily patterned by their age, socio-economic and educational background.
- Public ICT sites are attracting the 'usual suspect', people that already have access to, or are already users of, ICT.
- Adults choosing to use computers for formal and informal learning opportunities tended to have already been learners. ICT-based learning was, therefore, found to replicate existing patterns of general educational participation.
- Adults were found to learn to use, and learn through, ICTs in largely informal, unstructured ways.
- The biggest single topic that involves learning through the use of technology is how to use the technology itself.
- Most adults seem to be creating a use for the technology, rather than the technology solving some existing problem or deficit in their lives.

Selwyn, N. "Rethinking the Digital Divide in Adult Education: Neil Selwyn on a high profile adult education issue",

In his article *rethinking the digital divide in adult education,* Neil Selwyn debates to what extent Adult Education can bridge the digital divide and, indeed, whether it should be held responsible for doing so. The article explores what is meant by the terms 'access' and the 'digital divide' and suggests that these are not the dichotomous concepts we have come to understand, but hierarchical and changeable.

Access for example, should be seen in terms of 'meaningful' access. Selwyn states that it is not simply enough to assume that the 6,000 UK online centres and public access points have solved access issues. For example, one cannot compare this type of public access to access at home or at work, which he considers more meaningful. This hierarchical perspective can also be applied to the digital divide; in that generic access to technology, and skills acquisition are not the only two components of this concept. Relevance and motivation are critical when it comes to understanding digital exclusion. As individuals, people have many and varied reasons for using technology in the same way as use of any other service or product (Selwyn uses books as an analogy – we all have access to them but not everybody reads them).

The article reinforces the DIP position in that he also states that the likelihood of engaging with technology does not necessarily have as meaningful a relationship with wealth as was previously thought. In actual fact age is more likely to be predictive of whether an individual will be digitally excluded. Evidence shows that meaningful use also has less to do with technological or psychological factors than previously thought.

> *"At best technology offers a number of 'options' or 'choices' based on particular contingencies, which determine the variable impact of technology on people."*
>   (Heller 2000, p.389)

> *"What are the factors influencing people's ICT use? It is necessary to begin to develop an understanding of the complex reasons and shaping forces behind individuals' engagement with ICT."*

Selwyn, Neil. "Widening access to ICT via public sites - a research report"

The article *Widening access to ICT via public sites* is "based on data collected from a large-scale household survey." The data collected from the survey provided an indication of what level people have or perceive to have access to ICT, which was found to relate to geographic location, age, socio-economic status, and people's previous experience with ICT. The collected data also provided an insight to where people are making use of ICT and what ICT locations seem less invitational to non-users, the most comfortable and common space for ICT use was found as home use. Lastly, the survey was able to isolate reasons behind non-use, which was primarily a lack of interest or no need for ICT. Suggestions to increase the percentage of ICT users include producing 'successful facilities', ones in which provide a comfortable and invitational atmosphere, developing systems of community resources, which can be loaned to people to use in their own houses, and "take-up of public ICT sites is that of the relevance of ICT to people's lives" to tackle the issue to non-users that claim they have no need for ICT (6).

Interesting points:
- Governments have established over 7000 'UK Online Centres' as an attempt to provide 'universal access'.
- Differences in perceived access to public ICT sites were found in relation to age, socio-economic status, and people's previous experience with ICT.
- Younger people were significantly more likely to perceive having access to ICT in public sites.
- People in the 'partly skilled' and 'unpaid' categories were less likely to perceive having access to ICT in public sites.
- People with more than five years experience felt more able to gain access to ICT in a public site than compared with respondents with less than five years experience.
- Of the people making use of public ICT sites, there were differences found in relation to people's educational background and whether or not the respondent suffered from any long-term illness, health problems or disabilities.
- People with more education and not suffering from a disability were more likely to use a public ICT site.
- Of the non-users a total of 74 per cent claimed a reason for non-use that would non be affected if they had greater access to ICT, meaning of the non-users there needs to be a focus on motivation and awareness of advantages of ICT.
- For many people, digital divides are more an issue of 'content chasms' than purely issues of access and ownership

Social Exclusion Unit (PAT15), *"Closing the Digital Divide: Information and Communication Technologies in deprived areas",* <u>Department of Trade and Industry</u>, March 2000

This report was commissioned to research best practice in the provision of Information Technology skills and access to technology within deprived neighbourhoods, with the aim of informing a strategy to promote/increase access to ICT within areas of deprivation (access understood as availability of ICT). The document is peppered with examples of good practice and lessons learnt.
 The report makes reference to a dearth of information relating to attitudes to and use of technology amongst Black and Minority Ethic groups. Women are considered to be least likely to access technology because of general low interest and cultural issues or an absence of enabling factors such as childcare.

The benefits associated with technology are cited as economic, in terms of increased access to the labour market, and potential of increased community cohesion through enhanced communication networks. It acknowledges however that any enhanced quality of life is likely to be a result of increased access to government services rather than life-services.

The report emphasises social inclusion and economic development as mutually reinforcing agendas in the information age. It suggests also that future home access to the Internet is likely to be achieved through digital television rather than PCs. More people, it states, have home access to a TV than a telephone, and even fewer have a personal computer.

The report cites a number of barriers to establishing ICT access. These are:
- ➤ (Lack of a joined up approach) - No local or national coherence/dialogue between policy and strategy.
- ➤ (Promotion) - Poor promotion of potential ICT access points
- ➤ (Content) – frequently unsuitable content, e.g. an over dependence on literacy is a barrier in many cases
- ➤ (Competencies) – This refers to staff competencies
- ➤ (Funding) – Scarcity/inadequacy of funding. Unsuitable, inconsistent, partial or unsustainable funding and lack project capacity to seek it.
- ➤ (Costs) - Actual and perceived costs of technology/phone calls/charges etc.
Also;
- ➤ Low awareness of ICT amongst community groups
- ➤ Poor physical access/security
- ➤ Lack of enablers such as childcare

Computer literacy is perceived as critical for adults seeking to re-enter the labour market and equally for children in order that they have access in locations additional to school. The absence of technology is seen as reinforcing disadvantage. Technology can help to improve the quality of services, facilitate access to new opportunities and enhance social cohesion.

People in areas of deprivation are considered to be less likely to utilise common methods of training/points of access for technology. This may be due to:
- ➤ Poor prior educational experiences

> ➢ Lack of hands-on support in the use of IT (compared to those in employment, for example)
> ➢ Feel that formal training is not for them
> ➢ In areas of high Minority Ethnic populations, there may be inadequate language support/facilities available
> ➢ Low interest amongst women in technology (especially in the case of specific cultural/ethnic groups). Childcare/women's groups/home outreach may be needed

Centres should endeavour to employ people from similar backgrounds as the learners and provision should also reflect the cultural background of the community.

The report also makes a number of recommendations based upon the outlined needs.

Social Exclusion Unit, "Policy Action Team on Skills (PAT2): Final Report", 1999

This team sought to examine the gaps in key skills within deprived neighbourhoods and suggest means of addressing the resulting issues through a review of good practice, including amongst other things, the extent to which IT and distance learning engendered reengagement with training and education. The report includes a detailed plan for addressing these issues.

The emphasis of the report is a discussion of the potential for social reengagement with education and, ideally, employment within areas of deprivation. Employment is linked to participation within society, status, identity, interpersonal relationships and improved parenting.

Social deprivation, basic and key skills are linked (*ICT skills are not considered primary to this agenda*).

PAT2 identified 3 main reasons for low levels of skills within deprived neighbourhoods, these are:
- ➢ Education and training does not address the needs of the socially disadvantaged
- ➢ A lack of local capacity to develop/sustain skills initiatives. An equal lack of involvement and ownership of learning activities
- ➢ Low motivation for skills improvement and the belief that this improvement will not alter their prospects (economic & general).

Learning environments are often geographically remote and inhibiting, therefore limiting access, and first rung provision is not adequately tailored to attract and retain adults with low self-esteem and poor prior educational experiences; for example, an over-reliance upon qualification-driven learning.

The report recommends the use of neighbourhood learning centres and the right kind of learning opportunities based upon individuals needs and interests. Effective engagement is more likely if local people are involved in the management and delivery of learning.

The report suggests that sympathetic information, advice and guidance goes some way to helping individuals understand the relevance and benefit of learning. It goes on to state that people with low levels of literacy and numeracy are likely to have greater difficulty in learning new skills and advocates the benefits of new technologies (Moser report) in aiding basic skills acquisition.

Information Technology falls under the heading "Skills for work" as a Key Skill. The report states that recent changes in the labour market have resulted in a premium being place on competence in IT.

A good deal of emphasis was placed upon enabling and motivating factors for good practice, such as childcare, cash incentives and location, which was considered to be most critical. The centre should be identified with, offer a wide range of opportunities, and be sufficiently well resourced – word-of-mouth is cited as an effective means of marketing/recruitment and the learning should be relevant to

peoples lives, rather than 'worthy' (This was considered to be especially so in the case of technology related learning).

Hulme and Moss Side learning centre:
A roll-on/roll-off approach was considered appropriate for severely disadvantaged learners, rather than the short-term, output driven alternatives.

Haggerston Partnership:
Used laptops in local flats. They found that lack of affordable childcare was an inhibiting factor.

Social Exclusion Unit, "Policy Action Team Report Summaries: a compendium"*, <u>Crown</u>, April 2000

In 1998, the Social Exclusion Unit (SEU) published a report to address the question of how "to develop integrated and sustainable approaches to the problems of the worst housing estates". The report recommended a National Strategy for Neighbourhood renewal, including the instatement of 18 Policy Action Teams to establish and take forward proposed policy developments. This compendium lists and disseminates the findings of the PATs and summarises recommendations. Unequal distribution of skills and aptitudes, racial discrimination, a lack of 'connection' between prospective employers and the socially excluded (including access to reliable information), a lack of enabling factors and prohibitive transitional costs are all regarded as considerable barriers to employment. Only two references to IT can be found within the 18 summaries, these are:

 (PAT 2: Skills) This sought to examine, amongst other things, the extent to which IT and distance learning engendered reengagement with training and education. The summary does not list any outcomes in respect of this objective.

(PAT15: Information Technology) A detailed account is provided elsewhere.

The 18 PAT teams are:
1 (Jobs); 2 (Skills); 3 (Business); 4 (Neighbourhood management); 5 (Housing management); 6 (Neighbourhood wardens); 7 (Unpopular housing); 8 (Antisocial behaviour); 9 (Community Self-help): 10 (Arts and Sport); 11 (Schools Plus); 12 (Young people); 13 (Shops); 14 (Financial Services); 15 (Information Technology); 16 (Learning Lessons); 17 (Joining it up locally); 18 (Better Information).

Wills, M. "Beating the Information Divide", <u>Adults Learning</u>, Vol. 11, Issue 10, June 2000

In his response to the NIACE survey *The Learning Divide,* Michael Wills talks about Government plans to address the information divide, using the language of the digital 'haves' and have-nots'. He states that Internet users are younger and from higher socio-economic groupings, and also recognises that engaging peoples 'cultural interests' and personal aspirations is critical to motivating them into learning but does not transpose this to the digital divide.

Access is discussed in terms of availability of technology within reasonable geographic reach, although there is recognition that home ICT access is the ideal. The article promises that Ufi and UK online will 'transform' learning and there is note of the critical nature of ICT skills for employability. Digital television is seen as access for the lower socio-economic groups.

Wyatt, J et al. "Evaluation of CMF Funded UK online Centres – final report", <u>Hall Aitken,</u> 2003

The report is an evaluation of the 3,000 approx Capital Modernisation Fund (CMF) funded UK online centres within England's most deprived wards.
The purpose of the funding was to bridge the digital divide in terms of those who had access to ICT (and were able to use it competently and with confidence) and those who did not.

Those considered to be 'digitally excluded' were:
 ➢ People with basic skills needs
 ➢ Lone parents
 ➢ Individuals from minority ethnic groups
 ➢ Unemployed individuals
 ➢ People with disabilities
 ➢ Older people (60+) and not currently learning

Helping people to use the Internet, send email and explore IT opportunities were the three key goals of the centres, as was an emphasis upon local solutions to meet learner needs. He report evaluates the impact and efficiency of the CMF programme.

The research consisted of a series of surveys supplemented with qualitative data through case studies and visits.

The report deals with learner engagement prior to involvement in a formal course of learning, although enhanced progression was a key positive outcome of the evaluation and was attributed to, in the main, encouraging and supportive staff.

Attendance of a centre also led to broader outcomes such as improved confidence, new social connections and increased use of e-government services, although increased take-up of home access applied only to the higher socio-economic groupings.

UK online centres offer a range of technology-related activities, however by far the most users first attended centres in order to learn how to use a computer (73%). Sending emails to friends and family (28%) and pursuit of a hobby or interest (27%) were second and third highest motivations. Activity in the centres reinforced this finding.

ICT are discussed mainly in the context of improving skills for employment, though learner's goals and ambitions in terms of progression were different and included motivation from prior successes, wanting a certificate, seeking greater challenges and a desire to continue. However not all learners progressed after the initial taster. Barriers such as inconvenience, cost and low interest were cited as reasons for not progressing on to a qualification.

Tailoring delivery, opening times and environment to suit users was considered to be a key strength of centres. Encouraging peers support, new equipment, furniture, decor and an informal layout rather than classroom layout were also all considered to be enabling factors.

Users considered that their new ICT skills were 'of limited use' unless supplemented by home access to technology (59) as this simply offered opportunities that the users were unable to follow up. Selwyn N, 2002 who considers functional access to be either at home, college or work, reinforces this position.

The report suggests that the voluntary and community sector is critical in meeting the needs of disenfranchised target groups, and speak of the need for a balance of formal and informal learning opportunities, the use of peer-led training for support, and motivation and the development of relevant, need-focused content (61).

There is a suggestion that the Government policy focus has moved away from learning and towards social exclusion and active citizenship (77). There is no shortage of access/provision any more, rather, Internet access is reaching its saturation point and the greatest barrier is now interest and motivation, and to a lesser extent, a low perception of need.