



A review of the current landscape of adult informal learning using digital technologies

General educators report

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April 2009

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Acknowledgements

This report forms part of a Futurelab project on adult informal learning which is funded by Becta. We would like to thank Dr Leila Walker who provided substantial input into the early stages of this report. We are also grateful to all the organisations and individuals who provided information and insight during the course of this project.

Executive summary

Aim of the report

This report aims to examine the current landscape of adult informal learning using digital technologies. It provides new data on adult use of technology for informal learning and outlines the existing landscape of tools, resources and services which can support this. It aims to develop a shared understanding of the ways in which digital technologies are used for adult informal learning, and how this could be supplemented to enhance and transform adult informal learning in the future.

Intended audience

The report is intended to inform the practice of adult educators and adult learners, as well as to influence policy interventions and technology development.

Definition of adult informal learning

We accept that adult informal learning is a contested term. However, for the purposes of this report, the term 'adult informal learning' is used to refer to the self-directed intentional learning that takes place in people's leisure time outside both the workplace and the curriculum of formal and non-formal learning activities.

Importance of adult informal learning

- The report argues that adult informal learning is an important and valuable part of an individual's learning journey.
- Not only is adult informal learning important in and of itself, it is also important because it can help us respond to the challenges of a changing society. In addition there is research evidence suggesting that it can support both individual happiness and well-being and social cohesion and inclusion, and that adult informal learning offers an important yet often neglected support to a wide range of other learning activities.
- Adult informal learning therefore deserves sustained attention from adult education practitioners, researchers, policy makers and those involved in the technology industry, as well as from adult learners themselves.

Policy context

This report aims to inform growing policy attention to the area of adult informal learning. The Department for Innovation, Universities and Skills (DIUS) released 'The Learning Revolution' White Paper in March 2009 following a consultation which began in January 2008. 'The Learning Revolution' White Paper sets out a strategy to "sow the seeds of a new movement for learning". It is therefore an exciting time for adult informal learning with the notion being firmly on the policy-making agenda.

Reporting the results of a survey into the use of technology to support adult informal learning

The report presents new data from a nationally representative survey investigating the use of technology for adult informal learning. This data covers:

- the extent of adult informal learning
- people's reasons for learning
- the extent of the use of technology for informal learning
- the locations where adults use technology to learn informally
- the different technologies adults use to learn informally
- the benefits of using technology for informal learning
- the barriers which may prevent the use of technology for informal learning.

Findings from the survey include:

- adult informal learning is extensive with 94% of adults having engaged in some form of informal learning activity in the last three months
- 79% of adults say they use technology for learning in their leisure time and adults use technology for this purpose for an average of eight and a half hours a week

- 96% of those who use technologies to learn in their leisure time do so at home
- adults use a wide variety of technologies to learn with internet technology and TV, DVDs and videos being the most common
- 75% of adults were able to cite at least one benefit of using technologies for informal learning, whilst 23% were unable to cite any benefits
- 47% of respondents did not think there were any factors preventing them from using technologies to learn informally, whilst 44% cited at least one barrier.

The role of digital technologies in supporting adult informal learning

There is little in-depth research looking specifically at the ways in which technology can be used to support adult informal learning. There are, however, a number of emerging assertions which suggest that digital technologies have many beneficial roles to play in enriching and diversifying adult informal learning journeys. These benefits are not determined by the technology itself but instead arise from the way in which technology is used for learning.

Challenges, debates and issues surrounding the use of technology to support adult informal learning

The report offers a summary of several debates and challenges surrounding the use of technology to support adult informal learning. These include issues relating to:

- digital inclusion, digital participation and digital literacy
- the meaning of learning
- the relationship between informal and non-formal learning
- the challenges of using technology to support informal learning in adult education
- the challenge of moving from learning episodes to learning journeys

Recommendations for research, policy and practice

The report concludes by highlighting eight areas where there is room for intervention. It points to a need for research, policy and practice which aims to:

1. Raise the profile of adult informal learning.
2. Highlight the added value that digital technologies can represent for adult informal learning.
3. Highlight the connections between formal, non-formal and informal learning and explore them further.
4. Support and provide guidance for diverse, sustained and meaningful learning journeys.
5. Open public spaces and enable access to technology and learning.
6. Embed measures to increase digital literacy and digital participation.
7. Explore and support the use of technology to transform learning.
8. Promote and support technology as a learning medium and delivery mechanism for adult educators.

1. Introduction

This report examines the current landscape of adult informal learning using digital technologies. It is intended to inform the practice of adult educators and adult learners, as well as to influence policy interventions and technology development. It aims to develop a shared understanding of the ways in which digital technologies are used to support adult informal learning, and how this could be supplemented to enhance and transform adult informal learning in the future.

It argues that:

- Adult informal learning is an important and valuable part of an individual's learning journey. As such, it deserves sustained attention from adult education practitioners, researchers, policy makers and those involved in the technology industry, as well as from adult learners themselves.
- Technology has significant potential to support adult informal learning across a variety of locations and there is a need to champion, research and develop this potential.
- There is a series of important debates and challenges that arise when highlighting the potential of technology to support adult informal learning and which need to be addressed. These include debates about how to embed digital inclusion, digital literacy and digital participation, about what constitutes meaningful learning and about how to support the links between informal, non-formal and formal learning.

New data regarding the use of technology to support adult informal learning is presented and the report outlines the existing landscape of tools, resources and services for adult informal learning using digital technologies. As an overview, it cannot provide a comprehensive picture of the many complexities that surround this area. It does, however, offer a starting point which will give newcomers to the subject useful insight into the main areas of interest and concern related to the use of digital technologies for adult informal learning.

About this report

This report is part of Futurelab's adult informal learning project, funded by Becta. More details about this can be found at www.futurelab.org.uk/projects/adult-informal-learning. Researchers used a wide variety of methods to gather the information contained in this report. An extensive programme of desk research was undertaken to inform the report, which involved a survey of the literature on adult informal learning, as well as the literature on the use of digital technologies to support informal learning. Futurelab also commissioned Ipsos MORI to conduct a survey on adults' use of technologies for informal learning. Ipsos MORI interviewed a representative sample of 1,971 adults, asking them about their informal learning activities, and the findings are presented in section 5 of this report. Futurelab researchers hosted an open space discussion with experts and key stakeholders on digital technologies and adult informal learning in October 2008. Several informal meetings and discussions were also held with key stakeholders, as well as researchers attending several major conferences in this area. Finally, Futurelab held a seminar in February of 2009 to bring policy makers from different Government departments together to discuss the use of technologies to support adult informal learning.

2. Defining terms in adult informal learning

Adult informal learning is a contested term in policy, practice and research. Given this lack of consensus, it is important for any reference to the term to be accompanied with clear information about what is being referred to and in what context. For the purposes of this report, we view adult informal learning as learning

“...in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes¹.”

A key aspect determining what can be counted as informal learning, then, is the question of who sets the learning goals – the informal learner is the self-motivated and self-directed learner. In this report we concentrate on self-directed learning which is intentional and planned rather than incidental, and on the informal, self-directed learning that takes place in people’s leisure time rather than when they are at work². Although we acknowledge that there is much informal learning which takes place as ‘on-the-job learning’ in the workplace, the focus of this report is not to address this work-based learning in full. The adult informal learning we refer to in this report is therefore the intentional self-directed learning which takes place in people’s leisure time outside both work and adult education provision.

The report treats formal, non-formal and informal learning as having the following characteristics:

Formal: institutionalised, usually (but not always) compulsory, prescribed curriculum often approved by the state, has evaluation mechanisms and results in qualifications (eg school and university).

Non-formal: adult education provision occurring outside the formal school system, usually short-term and voluntary, involves a tutor or facilitator, usually some kind of curriculum, sometimes offers certificate at the end but this is incidental to the learning or activity (eg evening classes).

Informal: happens outside the curricula offered by formal and non-formal learning activities, self-directed, can happen anywhere, can occur at any point from birth to old age (eg teaching yourself to speak a new language)³.

This report focuses largely on the third of these categories. It also addresses the important question, however, of how this sort of self-directed informal learning can provide a valuable support for the learning that takes place in the non-formal setting of adult education provision. We argue that successful practice and successful policy needs to regard adult informal learning as one important aspect of a meaningful and sustained learning journey which may involve multiple episodes of formal, non-formal and informal learning.

3. The importance of adult informal learning

Not only is adult informal learning intrinsically valuable in and of itself, there are also many additional reasons why adult informal learning deserves sustained and careful attention from policy makers, practitioners, researchers and adult learners themselves. These reasons have been organised below under four main headings.

Responding to the challenges of a changing society

Promoting adult informal learning is one way to respond to the many changes and challenges facing contemporary society⁴. These include:

- an uncertain economic climate
- globalisation and climate change
- rapid technological change
- the move to an information or knowledge-based economy.
- increasingly complex career patterns and rising retirement ages
- improving health and life expectancy, an expanding population and growing numbers of older people⁵.

These changes will both produce increased numbers of learners in the future and result in changed learning priorities for those learners⁶. Adult informal learning has the potential to help us respond to those priorities by:

- providing a way for people to find meaning and purpose in periods of unemployment and in post-employment life
- giving people transferable skills to help them make career changes in middle or later life
- providing a way to share knowledge and experience between generations⁷.

Adult informal learning, then, can help to equip people with the skills, knowledge and purpose they need to meet the challenges of a rapidly changing society.

Supporting well-being and happiness

As a self-directed form of learning, adult informal learning poses an invaluable opportunity for adults to set their own learning goals in a way that is personally meaningful within their own lives and their own contexts. This has led many commentators to suggest that adult informal learning can support personal well-being and happiness. The recent Foresight report on mental capital and well-being and other related research suggests that engagement in adult learning may support:

- greater self-efficacy
- increasing confidence
- the ability to create support networks
- increasing earnings and employability
- healthier lifestyles⁸.

Commentators argue that “people involved in adult education are less likely to be dissatisfied in midlife, more likely to be optimistic and less likely to use health services”⁹. It should also be noted that there may be a number of other factors beyond engagement in education (eg income, upbringing, working arrangements and so on) which may also help to explain why those who engage in adult learning appear to experience less dissatisfaction. The fact remains, however, that there is an important link between adult informal learning and individual well-being and happiness.

Supporting social cohesion and inclusion

There is also research which suggests engagement in adult learning can:

- promote social cohesion
- strengthen citizenship
- extend and deepen social networks
- support the development of shared norms and values¹⁰.

Again, it should be acknowledged that there is no straightforward or direct causal link between learning and societal cohesion and there will be many factors which impact upon the level of social inclusion in society and which need to be addressed. Adult informal learning is just one important measure which may support increased social cohesion and inclusion.

Forming an important and neglected support to a broad range of learning activities

Typically, learning that happens outside formal and non-formal contexts is not well understood, despite it being a regular human activity. Yet research suggests:

- a ‘20/80 split’ in learning, with around 20% of all major learning efforts being formal or non-formal whilst the vast majority (80%) of learning is informal¹¹
- informal and self-directed learning is often invisible and neglected¹²
- informal learning can provide an important support to formal and non-formal learning.

Researcher Allen Tough has therefore developed the metaphor of the iceberg to describe adult informal learning, claiming that it is mostly hidden beneath the surface but has the potential to make a huge impact on learning as a whole. The use of this iceberg metaphor has become widespread, with commentators claiming that “pyramids of schooling continue to be supported by massive icebergs of informal learning in most spheres of life in our increasingly knowledgeable society”¹³. Adult informal learning is important, then, both for its own sake as a valuable learning activity, and because it supports formal and non-formal learning and can provide a means for people to learn wherever they are and throughout their life. It can therefore help people to make the move from a number of isolated learning episodes to a more sustained learning ‘journey’.

4. The current policy context regarding adult informal learning

DIUS and 'The Learning Revolution'

In March 2009, the Department for Innovation, Universities and Skills (DIUS) published a White Paper on informal adult learning entitled 'The Learning Revolution'¹⁴. This followed an extensive consultation in which DIUS received 5,500 responses to their January 2008 consultation paper, 'Informal Adult Learning: Shaping the Way Ahead'¹⁵.

'The Learning Revolution' White Paper sets out a strategy to "sow the seeds of a new movement for learning"¹⁶. It includes proposals to build a "culture which values informal adult learning in all its forms" and for "making better use of technology to support learning and inform people what's on offer"¹⁷. Among other measures, the paper commits to supporting a festival of learning, asking organisations to sign up to an informal adult learning pledge, the development of a web portal giving information about adult informal learning opportunities and the creation of a new £20 million transformation fund to "maximise the opportunities for learning by supporting creative collaboration and innovation"¹⁸. It is therefore an exciting time for both informal and non-formal learning, with the notion of adult learning being firmly on the policy-making agenda¹⁹.

This emphasis on informal learning also relates to two further policy priorities²⁰. The first is the skills agenda, which calls for a learning culture to develop that will improve skills and employability. The second driver is the idea of empowering individuals so that they can influence their local communities, encouraging greater participation and social justice.

The Learning Age and the skills agenda: In 2007 DIUS released a Command Paper, 'World Class Skills' which was developed to implement the Leitch Review²¹. The vision for this 2007 Command Paper began almost ten years earlier with the Green Paper, 'The Learning Age'. In this Green Paper, learning was described as the key to prosperity. "Investment in human capital will be the foundation of success in the knowledge-based global economy of the twenty-first century. This is why the Government has put learning at the heart of its ambition... The fostering of an enquiring mind and the love of learning are essential to our future success..."²²

Community cohesion: The Government's approach to community cohesion grew in part in response to several town disturbances in 2001. After the London bombings in 2005, the Commission on Integration and Cohesion was set up to explore practical ways to build cohesion. A new Government department, Communities and Local Government, has been set up to take this work forward. The Government's agreed definition of community cohesion is "what must happen in all communities to enable different groups of people to get on well together"²³. The White Paper, 'Communities in Control: Real people, real power', explores how people can exercise more power in their own communities and stresses the importance of lifelong learning²⁴.

The primary focus of adult informal learning is not the acquisition of skills to enhance employability. An emphasis on adult informal learning does, however, have the potential to support both the skills and the community cohesion agendas by contributing to a learning culture and supporting social inclusion. Indeed the policy emphasis on adult informal learning, in part driven by these two agendas, is to be widely welcomed²⁵.

Learning and technology: The Harnessing Technology Strategy

There is also an additional policy driver relating to the use of technology for adult informal learning.

The Harnessing Technology Strategy: In March 2005, the former Department for Education and Skills (DfES) published the e-learning strategy, 'Harnessing Technology: Transforming learning and children's services'²⁶. The document aimed to set out a strategic approach to the future development of ICT in education and to embed e-learning across the whole learning process. It argued that technology is the key to personalised learning and suggested that the imaginative use of technology could help engage more learners in the excitement of learning and attract new kinds of learners into lifelong learning.

Becta has been tasked with overseeing the implementation of the Government's e-learning strategy. In 2008 Becta published 'Harnessing Technology: Next Generation Learning' which reviews and refreshes the 2005 Harnessing Technology Strategy²⁷. This 2008 strategy document sets out the approach Becta will take in order to ensure the delivery of a technologically confident education and skills system²⁸. One of the priorities set out in this document is also to improve support for family and informal learning to help ensure rewarding learning experiences for those who use technology for learning at home. It points out the need to ensure that high-quality digital resources are available wherever and whenever learning takes place, and schemes such as Becta's Home Access programme have been set up to contribute to this work²⁹. Making such resources more easily accessible to both learners and practitioners is one measure which may help to ensure that learners have greater choice and control over their own learning experiences.

5. The findings of a survey on adult use of technology for informal learning

In 2008, in part in response to the need to inform growing policy attention in this area, Futurelab researchers commissioned Ipsos MORI to complete a nationally representative survey into the use of technology to support adult informal learning. A total of 1,971 interviews were conducted with adults and the survey provided significant and extensive new data which can contribute to our knowledge of the use of technology for adult informal learning. This data is presented below and discussed in relation to already existing research³⁰.

The survey was designed to find out about any activity which involved self-directed and intentional learning and which took place in people's leisure time outside the workplace, an evening class or a formal educational setting.

Full details of the survey methodology along with all of the data collected can be found in the full report at: www.futurelab.org.uk/projects/adult-informal-learning.

Extent of adult informal learning

The survey provided interesting data about the extent of adult informal learning in Great Britain. It found that:

- 94% of adults have taken part in some kind of informal learning activity in the last three months.

This encompassed a broad range of activities involving learning, from reading a newspaper, journal or book or watching a documentary, to learning how to cook a new dish or teaching yourself a new skill such as a language or how to play a musical instrument.

The survey found that adult informal learning is a near universal activity. This was not a surprise; already existing research suggests that a similarly extensive amount of adult informal learning is happening across Western countries. Canadian researcher David Livingstone, for example, has found that just over 95% of Canadians are involved in some form of informal learning activities that they can identify as significant³¹.

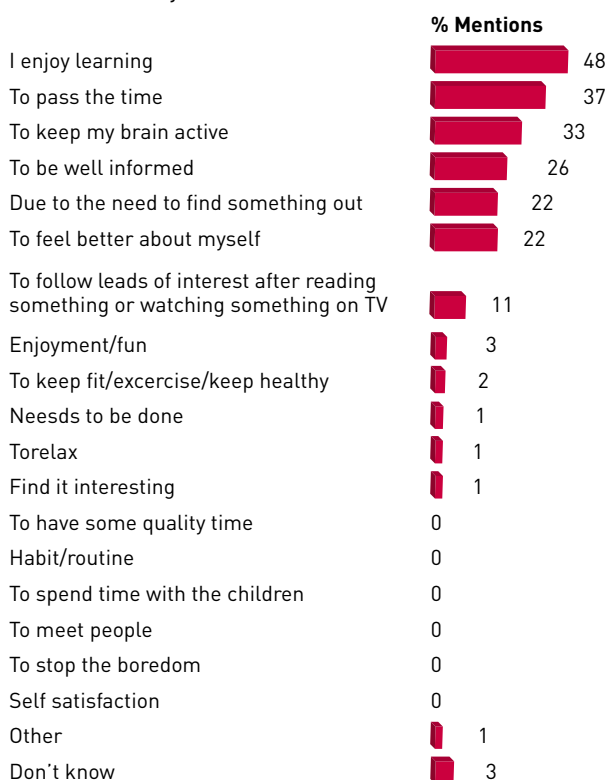
As such an extensive activity it is important that adult informal learning is supported and that measures are provided which will enable adults to make their informal learning both successful and meaningful.

Reasons for learning

In order to create measures to support adult informal learning, we need to develop an understanding of why people might engage in such learning. All those who reported that they took part in informal learning activities were therefore asked to list all of their reasons for engaging in such activities.

Reasons for learning in leisure time

For what, if any, reason do you choose to do these types of activities in your leisure time?



Base: all who take part in informal learning activities (1,840).
Fieldwork dates: 26th September-2nd October 2008

Ipsos MORI

Figure 1

It is useful to consider these figures in relation to a typology of adult learners developed by learning researchers working in the 1950s and 1960s³².

- Goal-orientated learners:** engage in learning because they want to accomplish clear-cut objectives.

2) **Activity-orientated learners:** engage in learning because they seek social contact or enjoy taking part in a particular activity.

3) **Learning-orientated learners:** engage in learning because they seek knowledge for its own sake.

The figures show that most of the people surveyed fitted into one or more of these three categories. 48% of learners, for example, cited that one reason that they engaged in informal learning was because they 'enjoy learning' and could therefore be classed as 'learning-orientated learners'. There were also surprises, however, with a third of people claiming that they engaged in adult informal learning to pass the time and one in five engaging in learning to feel better about themselves. This would seem to provide some support for the oft-made assertion that there is a link between adult learning and individual well-being. It would also suggest that there may be a need for increased direction and guidance so that the 38% of people who cite passing the time as one reason for engaging in adult informal learning are able, if they wish, to pursue more purposeful learning activities. The 11% of people who engage in learning to follow leads of interest highlights the way in which informal self-directed learning can allow people to immediately respond to something they find of interest and to bridge the gap between episodes of more directed non-formal learning. There are, then, many reasons why adults engage in adult learning and this diversity should be respected and fostered. These differing reasons, which may be goal, activity or learning orientated or which may transcend these categories, will often require differing policy interventions.

The extent of the use of technology for informal learning

Existing research suggests that adults spend 15 hours a week on average learning informally³³. Adults were therefore asked how extensively they used technology to help them with this informal learning.

- four in five (79%) of all adults say they use some kind of technology to help them learn informally
- on average, adults spend around eight and a half hours a week using technologies to help them learn.

There is, then, a considerable amount of technology-enhanced learning already taking place.

The survey also found that men (82%) were more likely to use technology to learn informally than women (77%), and the use of technology for learning is much higher in social grades AB (91%) than social grades DE (60%). This highlights the major challenge of ensuring that the use of technology for adult informal learning transforms rather than entrenches already existing patterns of engagement and disengagement with learning.

The locations where adults use technology to learn informally

The survey found that by far the most frequently mentioned location for informal learning was the home.

- 96% of those who use technologies to learn in their leisure time do so at home.

The fact that much learning takes place in the home means that it can remain invisible and it is often difficult to measure the extent of this learning and to ascertain how effective it is. There is a need, then, for further research into the sorts of informal self-directed learning that takes place in the home.

Other locations for informal learning mentioned in the survey included at a friend or family member's home, at the library, on holiday, at a community centre, at a cafe and at museums, art galleries and exhibitions. This wide variety of locations highlights the way in which the further development of mobile technologies may have the potential to support informal learning as well as the importance of ensuring access to technology for learning across a variety of locations, not just in the home.

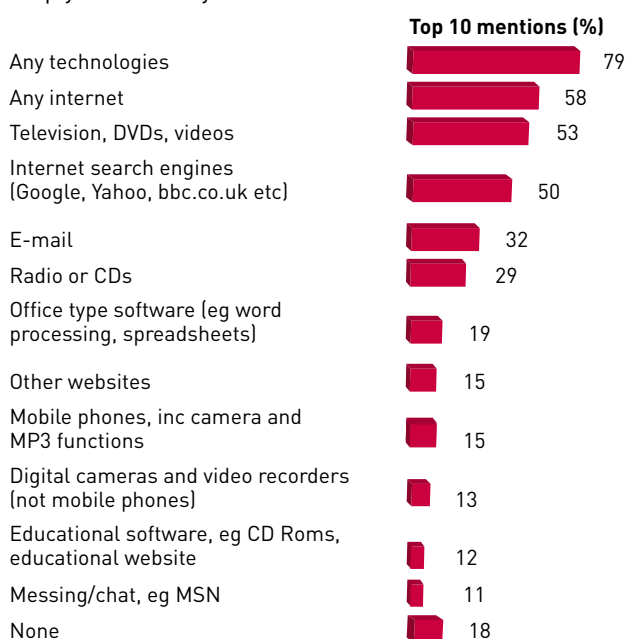
It should be noted that respondents were not asked about informal learning that takes place at work. Although there may be significant informal learning that takes place in the workplace, this is addressed elsewhere and is beyond the scope of this report³⁴.

Technologies that adults use to learn informally

There is a wide variety of technologies and media which people use to learn informally in their leisure time.

Technologies used to help with learning

Which, if any, of the following technologies do you use to help you learn in your leisure time?



Base: All adults aged 15+ (1,961)

Fieldwork dates: 26th September-2nd October 2008

Ipsos MORI

Figure 2

Each of these technologies can be used for learning in a multitude of innovative and interesting ways. Further information and reference to research on the opportunities that different technologies present for adult informal learning is summarised in the text box below. There is also further information about the use of technology for learning in the Directory of services, tools and resources which makes up Appendix 1 of this report.

Computers and the internet: In 1999 learning researcher Allen Tough said that he regarded the internet “as the most exciting development in adult education in the last 30 years... the potential is

absolutely enormous”³⁵. This potential ranges from possibilities for distance and e-learning, increased communication, participation and interaction, the ability for learners to create digital texts and tools and the capability to find information in a matter of seconds³⁶.

Social networking sites: Social networking sites have recently spiralled in popularity³⁷. They connect people into online communities, where they can communicate, create their own content and link with others with similar interests. There is increasing research on significance of social networking sites and the possibilities that they may present for transformative learning³⁸. See, for example: MySpace, Facebook and Bebo in Appendix 1.

Blogs: A blog is a website containing a collection of pieces of writing by one or more authors presented in reverse-chronological order. Blogging is a growing activity with a high potential for creativity and communication³⁹. Many researchers point to the potential of blogs both as a means of engaging in adult informal learning and as a method of reflecting upon learning⁴⁰. See, for example:

www.blogger.com, blogs.myspace.com, www.bbc.co.uk/blogs.

Micro-blogging: The art of communicating online continues to develop and change. Micro-blogging is a new way of blogging, where those taking part write very brief text updates (generally 140 characters) about their daily lives. Those writing micro-blogs can select who reads them, or they can allow anyone to read them. These messages can be submitted in different ways, including text messaging, instant messaging, e-mail, MP3 or the web. See, for example, twitter.com in the directory in Appendix 1⁴¹.

Online communities: There are many thousands of examples of online communities that offer unprecedented access to experts in a particular field. For example, if you are interested in home improvement and design, the Mydeco site (mydeco.com/knowledge) offers discussion forums and a place where members can ask questions of experts.

Wikis: A wiki is a website that allows those who access it to create or modify content. This can assist the creation of collaborative texts in which learners can explore issues and actively participate in the construction of shared meanings.

Podcasts: A podcast is a piece of audio or video which can be downloaded from the internet onto a portable media player (such as an MP3 player). A podcast could contain educational material or a university lecture which can then be listened to or watched in the learner's own time. Given the right equipment, anyone can make a podcast.

CD-Roms (Compact Disk Read-Only Memory):

The vast amounts of high-quality information that can be stored on CD-Roms make them a popular tool for adult informal learning, especially for language learning.

Games: There is increasing attention to the way in which games can be used to support learning⁴². Researcher Keri Facer, for example, lists ten characteristics of games which may contribute to their potential for learning and which include the ability to process information quickly and the ability to explore information in a non-linear fashion⁴³.

Mobile devices - mobile phones, digital cameras, PDAs and MP3 players: As technology develops, learners will be able to access all the services they get from the internet on their mobile device⁴⁴. These devices can be tools for sharing information, images and videos and offer many learning opportunities. Learners can, for example, receive news alerts or text messages from online learning courses, such as phrases from a language they are learning. Learners can use PDAs, along with freely available software to create and respond to 'mediascapes' (a collection of location-sensitive sounds and images)⁴⁵. Again there is increasing research attention to the possibilities that mobile devices present for learning⁴⁶.

Television, broadcasting and DVDs: Television has long been recognised as a medium for learning and as a vehicle for programmes with educational content⁴⁷. The variety of interactive options that digital TV provides offers increased opportunity for learning and organisations such as Help the Aged have suggested that digital television is a way of offering learning opportunities to older people⁴⁸. Many TV shows and documentaries now have websites with interactive content such as games or interactive maps. These websites often contain substantial further information on the subject of a TV show and can be used to signpost learners to further learning opportunities.

Community radio: Not only can radio programmes be an important source of information for adult learners, community radio in particular can be a means of getting volunteers from the local community involved in the process of broadcasting and running a radio station. This involves volunteers engaging in a wide variety of learning activities including, for example, learning how to use broadcasting equipment, researching content for radio programmes, learning about marketing and improving a wide range of work-related skills⁴⁹.

Benefits of using technology to learn informally

Survey respondents were asked about the benefits of using technology to learn informally.

- 75% of respondents were able to cite at least one benefit of using technologies for informal learning
- 23% were unable to cite any benefits.

The fact that almost a quarter of people do not think that there are any benefits of using technology for adult informal learning suggests the continuing need to highlight the added value that technology can represent for informal learning. By far the majority of people, however, were able to see the benefits that technology can provide.

Benefits of using technologies to learn

What, if any, do you think are the benefits of using these types of technologies when learning in your leisure time?



Base: All adults aged 15+ (1,961)
Fieldwork dates: 26th September-2nd October 2008

Ipsos MORI

Figure 3

These findings can usefully be compared to a study that took place in the 1970s which asked participants to prioritise the benefits they gained from learning informally. Although a wide range of benefits were mentioned (including cost, time and convenience), the most highly prioritised reason for engaging in adult informal learning in the 1970s survey was because the learners wanted to be in control. Learners wanted to set their own pace, use their own learning style and keep things flexible for themselves⁵⁰.

The present survey suggests that the use of technology may be able to support this flexibility, providing a mechanism allowing adults to be in control of their learning (as indicated by the fact that almost a third of people cite the ability to learn when they want and in a way which suits their learning needs as benefits of technology-enhanced adult informal learning). This suggests that the use of technology can help to overcome some of the barriers to engagement in learning by providing convenient and flexible learning opportunities.

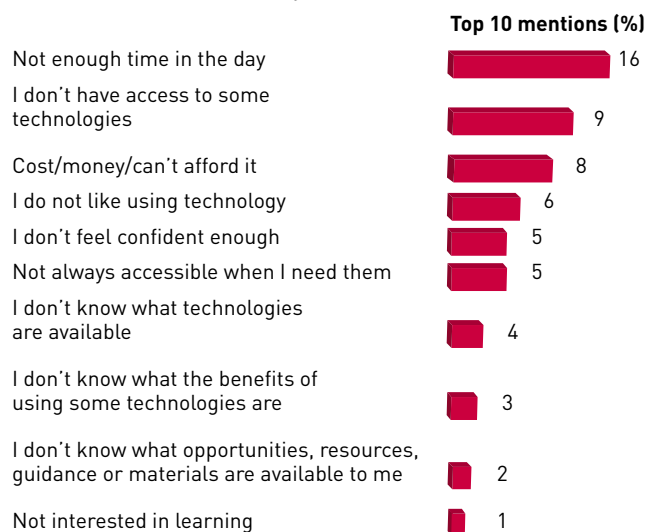
As can be seen from the list above, flexibility is just one of the many ways in which technology can add value to adult informal learning with other benefits cited including cost, enjoyment and convenience.

Barriers which may prevent the use of technology for adult informal learning

There are also several barriers which may prevent adults from using technologies to learn (or from using them more often).

Barriers of using technologies to learn

What, if anything, prevents you from using technologies to learn with, or from using these type of technologies to learn with more often, in your leisure time?



Base: All adults aged 15+ (1,961)
Fieldwork dates: 26th September-2nd October 2008

Ipsos MORI

Figure 4

Common barriers, then, are time, access and cost. Lack of information about opportunities for technology-enhanced learning can also form a significant barrier preventing adults from engaging in more informal learning. As might be expected, then, different people experience barriers to differing extents.

- 47% of respondents did not think there were any factors preventing them from using technologies to learn within their leisure time

— 44% of respondents cited at least one barrier to using technologies to learn informally.

Over a half (52%) of over-65s cite specific barriers to using technology, and BME respondents, social grades DE and those with no formal qualifications are less likely than average to say that nothing prevents them from using technology for informal learning.

These figures again suggest that there is a continuing need to address issues of digital inclusion. It should also be noted that the 47% of people who do not think there are any barriers preventing them from using technologies to learn may still require support to help them to learn more effectively through their use of technology.

Conclusions

The survey data illustrates that adult informal learning is extensive. The most commonly cited reason for engaging in this activity is because people enjoy learning and

this suggests that learning is viewed as intrinsically valuable. The data also provides insight into the use of technology for supporting informal learning with the most commonly used technologies being internet technology and TV, DVDs and Videos. Many of the cited benefits of using technology for informal learning focussed around issues of convenience and flexibility whilst the barriers cited often related to accessibility and not having enough information. This highlights the need for better signposting to ensure that people have the information about opportunities for technology-enhanced learning as well as further measures to address the issue of digital exclusion. The new data provided by this survey along with the evidence from already existing research suggests that technology has significant potential to support adult informal learning across a variety of locations and there is a need to champion, support and develop this potential. It also highlights a series of important challenges that arise when highlighting the potential of technology to support adult informal learning and which need to be addressed.

6. The role of digital technologies in supporting adult informal learning

The Interim Digital Britain report suggests that ICT increasingly impacts upon all aspects of our lives. The report suggests that “the success of our manufacturing and services industries will increasingly be defined by their ability to use and develop digital technologies”⁵¹. Adult informal learning will also increasingly need to make the best use of digital technologies in order to remain successful in the future.

There is to date little detailed research evidence which looks specifically at the ways in which technology can be used to support adult informal learning. Not only is informal self-directed learning an often ignored aspect of adult learning in general but the use of technology for informal learning is also greatly under-explored.

There is, however, some research pointing to the possible role that digital technologies could play in adult informal learning and considering the potential of digital technologies to add value to adult informal learning⁵². At present, the data appears to support a number of important but emerging assertions which could be usefully bolstered by more detailed research. In summary, digital technology has the potential to:

- Provide access to information about a wide range of opportunities for learning
- Inspire interest in a particular subject area leading adults to become learners seeking out adult education provision and informal learning opportunities.
- Provide opportunities and resources for adult learners to continue learning after they have finished a particular class or course and throughout their life
- Provide learning opportunities for those who do not wish to attend adult education provision or who are unable to access such provision.
- Widen accessibility to learning by offering alternative pedagogical approaches
- Open up interaction and collaboration between adult learners in dispersed geographical locations
- Transform the way people learn by allowing innovative and collaborative learning practices

- Provide opportunities for adults to reflect on their learning and to disseminate it
- Increase the options and resources available to adult education providers
- Help to engage the adult learners of the future
- Allow adults to engage in learning which suits their needs and takes place at their own pace
- Offer a convenient, flexible and engaging learning medium for adult learners

Digital technologies, then, can play a beneficial role in overcoming some of the barriers which may prevent adults from engaging in informal learning. Not only can technologies such as the internet provide the information people need to inform them what opportunities are available, they can also offer learning opportunities which are more flexible, more convenient, and, for some learners, more engaging than other options available to them. For learners who are unable to travel, digital technologies can provide an opportunity for them to engage in adult informal learning from their own home. For learners who have had bad experiences of previous formal education, technology can be one factor which helps them to re-engage in learning activities.

It should be remembered that the benefits of using technology for learning are not determined by the technology itself and do not automatically arise from all use of technology for learning. Instead these benefits will derive from the manner in which the technology is used, the opportunities the technology offers for the development of new learning practices and the context in which learning takes place. Technology does not replace the benefit that some learners will gain from interacting on a face to face basis with adult learning providers. Technology is, however, an important channel for learning in its own right, as well as a source of information and additional support in relation to other learning opportunities. When used effectively, digital technologies can play a crucial role in enriching and diversifying adult learning journeys.

Informal learning and technology: The example of interactive television

The 2009 Learning Revolution White Paper tells us that “learning is often stimulated by watching a TV programme... Following the TV programme ‘Strictly Come Dancing’ the number of people going to ballroom dancing classes more than doubled”⁵³. The UK is in the process of ‘digital switchover’ meaning that by 2012 television services will be completely digital and the old analogue signal will be switched off. The move to digital television offers increased learning opportunities by providing interactivity and giving people more control over their viewing experiences through the use of their remote control. It can include video on demand, the provision of additional textual and interactive information, a vehicle for viewers to vote and more personalised TV with, for example, the ability to view certain programmes from alternative angles.

‘The Learning Revolution’ White Paper sets out plans to make more digital content available to a wider audience by exploring the potential of Internet Protocol TV (IPTV) to increase access to content⁵⁴. IPTV allows on demand delivery of digital TV over a broadband connection. The Digital Britain report announces that the Department for Culture, Media and Sport (DCMS) is considering offering an enhanced set top box providing IPTV services as part of the

Digital Switchover Help Scheme⁵⁵. Although this remains an under-researched area, there is some emerging evidence regarding the beneficial role of digital interactive TV in informal learning, as well as its role in delivering public services. This evidence arises from a small number of research reports as well as the results of several projects which aim to harness the power of digital interactive TV to deliver public services including educational services⁵⁶. Digital Bridge, for example, is an experimental project set up in 2005 in Shoreditch, London which provides broadband internet on televisions to Shoreditch residents. One of its more innovative features is Shoreditch TV which allows users to monitor a network of local cameras and watch the daily events in the city. This project aims to target and eliminate digital exclusion, prepare communities for digital switchover and offer a wide range of services including educational services. Digital Bridge is now part of a national media group scaling IPTV services to a national audience⁵⁷. DigiTV, owned and managed by Kirklees council is another example of a service offered to public sector bodies to allow the publication of public services on interactive digital TV and mobile phones⁵⁸. These are just two of many projects which suggest that there is considerable potential for interactive digital TV to have a positive impact on both adult informal learning and the provision of public services.

7. Issues, challenges and debates surrounding the use of technology for adult informal learning

Digital inclusion, digital participation and digital literacy

One of the most pressing challenges facing those who wish to promote the use of digital technologies for adult informal learning is the issue of digital inclusion. There are many people who, for many reasons, are unable or unwilling to participate in adult learning. There are also, however, large numbers of people who are digitally excluded:

- an estimated 17 million people over the age of 15 in the UK do not use computers and the internet yet 90% of new jobs require IT skills⁵⁹.
- 15% of the adult population (over 6 million people) suffer both social exclusion and lack of engagement with ICT⁶⁰.
- just over a half of non-internet users are over 65, and 66% of non-internet users lack higher education⁶¹.

Wide gaps continue to exist between those who have access to technology and those who do not, and we saw in the last section that 44% of people continue to experience barriers preventing them from using technology to learn informally. Older people are one group who are less likely to be engaged with digital technologies, with people from lower social grades, those who lack higher education and many others also suffering from digital exclusion. There is, then, a strong correlation between disadvantage and lack of access to digital technologies, and policy makers have acknowledged the links between social exclusion and digital exclusion. Learning researchers point out that the use of digital technology for learning is likely to replicate existing inequalities if measures are not found to address digital and social exclusion⁶². They argue convincingly that interventions which aim to accomplish digital inclusion alone are not enough. This does not mean, however, that tackling the digital divide is not important; it should remain a priority for both policy and practice.

Policy context – The Digital Inclusion Team: The Digital Inclusion Team was created in May of 2006 following a recommendation of a study by the

Government's Social Exclusion Unit, 'Inclusion Through Innovation'⁶³. It is funded by the Department for Communities and Local Government and hosted by the City of London. The team defines digital inclusion as "the use of technology either directly or indirectly to improve the lives and life chances of disadvantaged people and the places in which they live"⁶⁴. The Digital Inclusion Team is supporting the delivery of CLG's Digital Inclusion Capacity Building Programme (DICB). As well as a number of research reports, the DICB programme involves support for the development of initiatives and tools such as Solutions4inclusion (an online tool providing local authorities with inspiring examples of technology-enabled services to improve the lives of disadvantaged people) and the development of a national network of 'Digital Mentors'⁶⁵. A cross-Government consultation on a digital inclusion action plan was published in October 2008⁶⁶.

There is a continued need to ensure improved access to technology and to the resulting opportunities for technology-enhanced learning. There are several already existing measures which aim to improve access to technologies across a wide range of locations (a good example of this is the work of UK online Centres which provides more than 6,000 centres where people can access computers and the internet and receive help and advice on how to use them)⁶⁷. These are measures which should be supported and developed and have significant potential to support technology-enhanced adult informal learning.

Policy Context: Home Access: The Home Access programme has been created to ensure that every 5- to 18-year-old has home access by 2011. It aims to address digital exclusion by ensuring that all families have access to the internet in order to support their learning. By removing the financial barriers to using digital technologies, Home Access provides an opportunity for both adults and children to develop their ICT skills, to participate in online learning, and to use the computer to access government services. The Home Access programme

also aims to increase the perceived value of computers for parents' and children's learning and to encourage the use of technology for learning. It therefore has the potential both to support adult informal learning and, importantly, to address access issues relating to the digital divide. DIUS have also asked Becta to develop a Proof of Concept for Adult Access to technology for learning. This will involve a 2008-9 trial to explore what happens when adult learners get more access to technology and online services to support their learning⁶⁸.

Digital inclusion is about more than access to technology and the development of functional ICT skills, however. The digital divide has multiple layers, and beyond simple access, we need also to address skills, values and context as well as the content of digital resources⁶⁹. A wide range of commentators agree that people need to be equipped with the skills, knowledge and motivation that will enable them to be active citizens, effectively participating in the use of digital technologies for a wide range of purposes, including for adult informal learning. The Digital Britain report sets out plans to create a national media literacy plan in the UK and this is to be welcomed⁷⁰. The development of a media literacy plan provides an important opportunity to give more thought to the question of how we can help learners to develop the competencies which will allow them to use technologies to communicate and interact with others as well as to create, critique and evaluate a wide range of digital texts and digital media⁷¹. Measures to support digital literacy and digital participation may involve adult education provision which includes a digital literacy element where learners are encouraged to consider how to create and critique digital content and digital texts. It could also include campaigns and events which encourage greater public awareness of the issues relating to digital literacy including how to use digital technologies safely and effectively. In summary, a wide variety of sustainable initiatives to increase digital literacy should be considered in order to support the successful use of technology for adult informal learning.

The meaning of learning

We have seen that adult informal learning is a contested term and that, for the purposes of this report, we use the term 'informal' to designate the learning that takes place outside the context of formal and non-formal settings. The question remains, however, of what constitutes effective and meaningful learning and who is able to make these judgements. This is an area of debate particularly relevant to the use of technology to support learning. What might the difference be, for example, between looking up information on a website and using the internet to help one to engage in a sustained learning activity? Does the difference revolve around the way in which the learner themselves defines their experience? Does it revolve around whether the activity facilitates sustainable changes in the learner's skills, knowledge and attitude? Is there a difference?

It is very easy to make a simple connection between technology, learning and the transmission of information. Indeed, recent researchers have made the claim that "in most places where new technologies are being used in education today, the technologies are used simply to reinforce outmoded approaches to learning"⁷². They point out that the challenge is to think about how digital technologies can be used to facilitate a deeper sense of learning which does not rely simply on the transmission of information. As with digital literacy, those interested in the use of technology for adult informal learning need to consider how digital technologies can be used in new and transformative ways to construct not only digital tools and texts but also to facilitate the collaborative constitution of meaning and the acquisition of new and changed knowledge and attitudes.

There are many complex theories of learning and it would not serve to rehash those theories here⁷³. It is important, however, for those who wish to champion the potential role of digital technologies in adult informal learning to be aware that these debates exist. This awareness should help to prevent problematic assumptions about the use of digital technologies in adult informal learning. It is not the case, for example, that all use of technology is good

use of technology or that the use of digital technology is an end in itself – and it is not the case that technology can appropriately be used for all kinds of adult learning and all adult learners. Some learners may require the input of an adult education practitioner to facilitate the process of transforming their self-directed learning activities into more sustained and meaningful learning. Those that seek to highlight the way in which digital technologies can support adult informal learning, then, need to give careful consideration to questions of the meaning of learning and how technology can be used to transform and improve learning.

The relationship between informal and non-formal learning

Self-directed informal learning is not completely divorced from the non-formal learning that takes place in adult education provision. Any formal or non-formal learning episode may have informal attributes or qualities because it will help to advance the self-defined informal learning goals of the individual learner⁷⁴. It may also be that an individual learner will engage in self-directed learning in their leisure time in order to support their more directed learning that takes place within the non-formal setting. Researchers point to the need for more research into the relationship between informal, non-formal and formal learning⁷⁵. This means that those who wish to champion the importance of adult informal learning also need to pay close attention to the valuable work of adult educators. Conversely, adult educational practitioners need to ensure that they recognise the important role of the informal learning which happens outside adult education provision. The challenge for policy makers, practitioners, researchers and members of industry is to find ways to make and support connections between formal, non-formal and informal learning episodes so that people are able to engage in sustained learning journeys throughout the entirety of their lives.

The challenges of using technology to support informal learning in adult education

This report has been referring to adult education provision as non-formal rather than informal and has been concerned, in the main, with discussing the informal learning which takes place outside the adult education

setting. As we have seen, however, it is important to recognise and highlight the connections between non-formal and informal learning and this means that it is useful for adult education providers to be aware of:

- the ways in which practitioners can use technology to make connections more visible between non-formal learning and the informal self-directed learning that takes place at home or in locations outside adult educational settings
- the possibilities that technologies present to enable learners to continue their learning journeys informally and methods of making learners aware of these possibilities
- the ways in which technology can be used as a learning medium and delivery mechanism for adult education provision.

This will help to ensure that technology is successfully used to support adult informal learning⁷⁶.

There are several already existing services which support the use of technology in adult education and for adult informal learning⁷⁷. The National Institute of Adult Continuing Education's (NIACE) ICT and learning team, for example, promotes online learning, develops online resources for e-learning, delivers teacher training, promotes access to ICT in local communities and aims to extend learning provision and incorporate e-learning and ICT skills into delivery. There remains a need, however, to provide ongoing support for adult educators in order to encourage their use of technology to support adult informal learning.

The provision of such support can help adult educators overcome various barriers which can complicate or prevent the integration of ICT into adult education provision⁷⁸. Some adult educators may not possess the specific skill sets to enable them to use ICT as a delivery mechanism or to provide guidance to learners about how they can use technologies to continue their learning journey. There are many challenges, for example, involved in finding, using and managing online learning resources.

In addition, many adult educators work alone in hired premises (eg in church halls) and it can therefore be difficult for them to provide technological equipment or to access technological assistance. People offering an adult education class in a village hall may have no access to heating, let alone technology such as computers or the internet. There are also additional challenges posed by the fact that many adult education staff are part-time and may not have access to paid staff development time. It can therefore be difficult for them to engage in long-term sustained training. Although technology offers many possibilities for learning (see text box in section above for just a flavour of these possibilities), it also poses several challenges to adult education provision. These challenges will need to be addressed if adult education is to capitalise on the prospects and possibilities provided by technological change.

Moving from learning episodes to learning journeys

As far back as the 1970s, researchers found that adult learners organise their learning efforts around a series of projects or learning episodes, claiming that almost everyone undertakes at least one or two major learning efforts a year, and some individuals undertake as many as 15 or 20⁷⁹. The challenge is to make sure that adults can proceed through these episodes and have a way to connect them. Technology can provide one way to provide adult learners with information and guidance about adult informal learning opportunities (which may or may not involve the use of technology).

Technology-enhanced informal and self-directed learning can also provide a means of bridging the gaps between non-formal and formal episodes of learning to help maintain the motivation of learners in between or after attending adult education provision. Researchers, practitioners, technologists and adult learners themselves, then, need to explore ways of ensuring connectivity between:

- different learning experiences which make use of technology
- technology-mediated learning experiences and live events
- different learning episodes
- different types of learning⁸⁰.

This will ensure that individual learning episodes do not become isolated efforts but learners instead have the potential to engage in meaningful learning journeys throughout their lives.

8. Recommendations for research, policy and practice

The recommendations below represent summaries of the key points and arguments included in this report. In summary, research, policy and practice should aim to:

Raise the profile of adult informal learning: There is strong evidence citing the benefits of informal learning for society as a whole as well as for individuals. Adult informal learning is often hidden, however, and is not well understood; many people do not recognise either when they are engaging in such learning or the value that it holds. In the 2009 Learning Revolution White Paper, DIUS state that their aim is to create a culture which values learning of all types. This is a welcome initiative and needs to be carefully implemented and sustained. Digital technologies can play an important role in raising the profile of adult informal learning – they can provide information and guidance, light the spark of interest in a particular area that leads to adults becoming lifelong learners, and help to engage the adult learners of the future⁸¹. There is a continuing need, then, to raise the profile of adult informal learning in research, policy and practice.

Highlight the added value that digital technologies can represent for adult informal learning: Digital technologies have the potential to add significant value to adult learning of all types. They can enhance, complement, support, boost and deliver the learning that takes place in a variety of locations; from the evening class to the home. There is a lack of detailed and in-depth research into the role of digital technologies in supporting adult informal learning. Stakeholders do not always clearly recognise the potential of digital technologies and there is a continuing need for the added value that technology can represent to be championed⁸².

Highlight the connections between formal, non-formal and informal learning and explore them further: Further research is needed to explore the connections between formal, non-formal and informal adult learning, and how they can support each other. This research would support adult educational practice which builds on the prior experiences of the adult learner and would help practitioners and learners make connections between the learning which takes place during leisure time and the learning that takes place in non-formal educational settings⁸³.

Support and provide guidance for diverse and sustained learning journeys: Digital technologies have an important role to play in providing access to information about a wide range of opportunities for learning and in enriching and diversifying adult learning journeys. However, research identifies a need for interconnectedness and signposting between different learning episodes, different locations for learning and between different sorts of technologies which enhance learning⁸⁴.

Open public spaces and enable access to technology and learning: A recent report on digital inclusion found that those who suffer deep social disadvantage are up to seven times more likely to be disengaged from the internet than those who are socially advantaged⁸⁵. This highlights the continuing need for improved access to technology and to the resulting opportunities for technology-enhanced learning⁸⁶. Opening public spaces to create more venues for such learning and ensuring that people have access to technology in their own home are both important measures which will support adult informal learning⁸⁷.

Embed measures to increase digital literacy and digital participation: Digital inclusion is about more than access to technology and the development of functional ICT skills, however. It also requires that learners are equipped with the skills, knowledge and motivation that will enable them to be active citizens, effectively participating in the use of digital technologies for a wide range of purposes, including for adult informal learning. This means ensuring that digital literacy is embedded in all forms of learning so that people have the competencies which will allow them to use technologies to communicate and interact with others as well as to create, critique and evaluate a wide range of digital texts and digital media⁸⁸. Sustainable measures to support digital literacy and digital participation are therefore needed if technology is to be used successfully for adult informal learning⁸⁹.

Explore and support the use of technology to transform learning:

It is also important for policy and practice to recognise that the effective use of technology can have the effect of transforming learning so that it becomes more than the simple transmission of information or skill⁹⁰. Support also needs to be provided to enable those uses of technology which aim to facilitate the deep and meaningful sorts of learning which can arise from the learner's active participation in the collective construction of meaning⁹¹. DIUS's new transformation fund announced in March 2009 could provide an important measure to support the effective use of technology for learning. It will be important to carefully measure the impact of initiatives supported under this fund and to continue to give sustained attention to the issue of how best to use technology to transform learning.

Promote and support technology as a learning medium and delivery mechanism for adult educators:

Digital technologies can increase the options and resources available to adult education providers, assisting them in their facilitation of high-quality and effective adult learning. They can open up interaction between adult learners existing in different locations throughout the world and widen accessibility to learning by offering alternative pedagogical approaches. However, the effective use of technology may also present additional demands for practitioners. Embedding the use of technology into practice may require, for example, additional resources, time, management, learning materials, skills, knowledge and imagination. Adult educators need support in using such technology as a learning medium and delivery mechanism⁹².

Appendix 1:

Directory of adult informal learning tools, resources and services

The range of digital learning opportunities is so vast that this directory offers just a flavour of the options that adults have to aid their informal learning using technology. It includes examples of:

- types of organisations offering informal learning opportunities or services relating to adult informal learning and technology
- types of resources available - this consists of materials and services that are available for adults using technology to learn
- some of the software and hardware tools that adults may use for informal learning.

The items are presented in alphabetical order under these headings.

Organisations offering informal learning opportunities or services relating to adult informal learning and technology

There are many organisations and websites which support online and technology-enhanced learning. These exist alongside organisations ranging from the Learning and Skills Council to the Campaign for Lifelong Learning, ContinYou and the Workers Educational Association which are dedicated to learning in general.

AskOxford.com

This online dictionary merits its own entry in this directory. This site has many learning opportunities – all in one place. How up to date are you with new words? Do the online quiz to find out. There is free help on use of the English language, including spelling, grammar and writing tips. There is also information on learning foreign languages, history of words and usage of words. There are competitions to win books, a large Frequently Asked Questions section ('Ask an Expert') and the option to e-mail the Oxford Word and Language Service (OWLS) ('Contact Us') which answers questions about the English language for free.

www.AskOxford.com

BBC Adult Learning pages

The Ready to Learn zone on the BBC site points people in the direction of new learning opportunities and lets them hear about others who have gone down the learning path. The site also has an interactive guide to using e-mail, digital cameras and more. There is also a course finder to help learners find courses in their area. There is a family learning guide to help people improve their reading and writing skills. Online courses include cookery, gardening, health, history and science. The modern languages pages offer introductory videos in ten parts. There are online activities including games and quizzes to consolidate learning.

www.bbc.co.uk/learning

City Learning Centres

City Learning Centres are designed for schoolchildren, with a wide range of computers and courses - but in many local authorities, they are also open to adults. Classes can include family French and family Italian, aerobics, gospel choir, digital editing, computers and creative writing. People should contact their local authority to find out more.

Community Channel

This site has podcasts and fact sheets all about volunteering. Visitors to the site can also take part in discussion forums. Podcast topics include how to market to young people and how to use campaigns effectively.

www.communitychannel.org

Digital Unite

An organisation specialising in helping people over 50 to use IT. Digital Unite runs campaigns, provides IT teaching and training, encourages online learning and shares expertise. It provides a Learning Zone section of the website delivering short, easy-read, easy-download guides to diverse topics related to IT and learning.

digitalunite.com

Direct.gov

Here, learners can find local courses, online courses, links to public libraries and non-formal learning opportunities such as non-accredited programmes. There is a special section called 'Learning for fun' and there are pages dedicated to learning opportunities for the over 50s.

www.direct.gov.uk

English Heritage

The English Heritage site has many online resources for learners who wish to do their own research. The Online Resources section of the website has searchable databases and a facility where people can search on their surname to discover its origins. Databases include Images of England, a 'point in time' photographic library of England's listed buildings. There are over 300,000 entries. The Pastscape website has an inventory of archaeological sites and historic buildings in England, which people can search. There are links to maps and aerial photographs.

www.english-heritage.org.uk/server/show/nav.1518

KickstartTV

KickstartTV is a place to go to learn about new things. Like a magazine, but available on digital interactive TV, it offers information on activities and campaigns. It also has tips to help people brush up their literacy, numeracy and job skills. There are also signposts to other learning opportunities and further help is available via an advice line. More topics are being added all the time.

www.kickstarttv.co.uk

learndirect

learndirect is a national supplier of e-learning courses. It has been developed by Ufi (University for industry) with a remit from Government to provide high quality post-16 learning which reaches those who are unlikely to participate in traditional forms of learning. learndirect operates a network of some 800 online learning centres in England and Wales, providing access to a range of e-learning opportunities. Since its launch in 2000, more than two million learners have enrolled on almost 4.5 million learndirect courses. There are some 500 different courses covering a range of subjects, including management, IT, Skills for Life and languages. More than three-quarters of the training courses are available online.

www.learndirect.co.uk

Meetup.com

Meetup is a global network of local groups. The idea is to make it easy for anyone to organise a local group or find one that is already meeting up face-to-face. More than 2,000 groups get together in local communities each day, each one with the goal of improving themselves or their communities. There are almost five million members world-wide. Meetup's mission is to revitalise local community and help people around the world organise themselves. Just enter your town to find groups meeting nearby.

www.meetup.com

Myguide.gov

This site offers bite-size online courses starting with an introduction to the internet and how to use a computer. There are courses for those who have some familiarity with the technology on using public services, staying safe on the internet, using digital TV and using digital photography. There are more advanced courses on how to bank online, socialise online, download music, look for a job and more.

www.myguide.gov.uk

MySociety

This is a non-profit organisation that designs websites to help people use the web to find out information and communicate with politicians. The idea is to give people a voice in their local and national democratic process. There are several sites under its domain. For instance, the Fix My Street site encourages people to report broken items on their street to the local council. They enter their postcodes, stick a pin in the map and explain the problem. Then the site sends their message to their local council. They Work For You is another of MySociety's sites, providing people with information on their politicians, such as: who their local MP is, what various MPs said in Parliament and summaries of how they voted. They Work For You was visited around two million times in 2007. Pledge.com is another related site. This encourages people to pledge themselves and invite others to pledge to undertake a certain activity to help others.

www.mysociety.org

National Institute for Adult Continuing Education

NIACE is a charity which aims to “encourage all adults to engage in learning of all kinds”. Among other things, NIACE runs campaigns, develops and disseminates research and development, supplies consultancy, advice, training and support services, and supports networking with practitioners, policy-makers and researchers. It also has a team supporting the use of ICT in learning.

www.niace.org.uk

National Trust

The National Trust offers materials that can be downloaded to help people trace their family history. The organisation is planning to offer a database so that people can look up their surnames and get more information about their name’s historical origin. There is also online information about volunteering.

www.nationaltrust.org.uk

Openlearn at the Open University

An online learning space providing hundreds of free study units, each with a discussion forum. Learners can study independently at their own pace or join a group and use these learning tools and learning materials to learn with others.

openlearn.open.ac.uk

Our future. It’s in our hands

‘Our future. It’s in our hands’ is a campaign that has been launched by the Learning and Skills Council (LSC) as part of the need to improve skills. This site has information, advice and links to informal and non-formal learning opportunities, such as those offered in museums and libraries.

inourhands.lsc.gov.uk

QIA Excellence Gateway

The Excellence Gateway aims to help transform delivery across the learning and skills sector by becoming the recognised web channel where practitioners at all levels can access high quality resources and information, inspire innovation and share best practice.

excellence.qia.org.uk

RaW (BBC)

RaW is the BBC’s campaign to improve adult skills. It concentrated in its first three-year manifestation on reading and writing skills. It now provides an online “place where adults can develop their skills for everyday life” and includes information on a wide range of topics from developing basic computer skills to buying a car to making the most of your money.

www.bbc.co.uk/raw

RSA

The Royal Society for the Arts (RSA) features online videos of recent RSA-sponsored talks. Topics include explorations of questions such as: ‘Is our obsession with home ownership bad for Britain?’ Other talks feature international speakers who address topics such as the future of the internet, making peace in Northern Ireland and how to change minds. People can also listen to an event in real time through a live webcast on the site. They can also download podcasts up to a week after the event.

www.thersa.org

Royal Institution

The Royal Institution website offers interactive features such as webcasts and games. The webcasts explore a variety of topics including using number to predict the future, break codes and understand shapes. They also include topics all about food: its distribution, content and consumption. Games can be played online and include Bendy Bodies, where you can find out how contortionists bend and move the way they do. Or try Planet X Gravity Game, which explores what would happen to a planet if you altered its distance from the sun.

www.rigb.org

The Rural Media Company

A media education, development and production organisation whose key aims are to enable rural communities to learn about and use media by participating in practical media activities and create and disseminate high-impact media communications and educational resources

www.ruralmedia.co.uk

Safari at the Open University

A website which aims to provide a guided expedition through the information world in order to build confidence in finding, evaluating and using information.

www.open.ac.uk/safari/php_pages/about_safari.php

School of Everything

School of Everything is a website that helps people who want to learn meet up with people who want to teach. Teachers register online and create a personal page giving information on their lessons, the qualifications offered and the format in which they teach - for example workshops or one-to-one sessions. Potential pupils find a tutor who's right for them simply searching by subject, learning category and location. They can then send them a message, arrange to meet and begin learning their new subject.

schoolofeverything.com/about

Skillswise (BBC)

The Skillswise site offers quizzes, games and worksheets to help learners with their word and number skills. For developing word skills, these include grammar, spelling, reading and writing. For improving number skills, there are quizzes on whole numbers, decimals, fractions and measures.

www.bbc.co.uk/skillswise

Third Age Trust (U3A)

U3A Online courses are short courses designed for older people. They are available through a partnership between Third Age Trust (the UK national organisation) and the U3A Online Inc (based in Australia). The courses are designed for personal interest. No entry qualifications are necessary and the courses offer no credit on completion. The courses have been written by volunteers who are experienced tutors or course leaders in their fields. There are tutored and untutored courses. Tutored courses have a higher degree of interactivity, with students based in UK, Australia, Cyprus and Spain. There is also e-mail contact with the tutor and opportunities for feedback. Untutored courses do not offer this interactivity. However, they are ideal if learners cannot guarantee regular hours, or are simply happier getting on with things on their own. U3A online courses include genealogy, astronomy, writing fiction and poetry, garden history, the Romans and more.

onlinecourses.u3a.org.uk

Timebank

Timebank offers people the opportunity to become digital mentors on the topic of volunteering. Digitall [sic] mentoring brings together young people aged 18-25 who are willing to share their experience of using the internet with people aged over 45. Young people act as mentors, supporting the other learner on a one-to-one basis to achieve their digital goals. While much of this is face-to-face, there is also the option for people to meet up virtually at Timebank's centre in the Second Life site.

www.digitall.org.uk/resources

Together we can

This site provides information about sources of help including organisations, sources of funding, and advice for those who want to be more involved in their communities. There are weekly articles and discussion forums on changing themes. The site provides a place for community activists and others to discuss issues and share ideas about community empowerment and engagement. Resources include the DIY Guide to Improving Your Community.

togetherwecan.direct.gov.uk/about-us

Tribal

Tribal is an educational consultancy producing educational technological products, teaching and learning resources and software for the post-16 market. It also provides consultancy and development to both government and commercial organisations.

www.ctad.co.uk

UK Online Centres

There are over 6,000 UK Online Centres providing people with access to computers and the internet and advice on how to use them. The centres are placed on high streets, in libraries, internet cafes and community centres and they provide both help in basic computing and more advanced courses.

www.ukonlinecentres.com

Virtualstudies.net

A website providing advice for students wishing to learn online.

www.virtualstudies.net/tips-for-success.php

Vision2Learn

This site offers free online training courses covering computer studies, web design, money management and personal development. Courses include healthy eating, healthy living, money management computer skills as well as health and safety. Some are for qualifications, but all are flexible and allow learners to work at their own pace.

www.creatingcareers.net/channels

Culture24

This site connects online audiences with cultural content and inspires them to explore the UK's museums, galleries, archives, libraries and heritage sites. There are event listings, information on the latest collections and venue details. There is a live database, which UK museums, galleries, libraries and archives are able to use directly. Culture24 has online trails that are web feature articles written to show off the best of the UK's museums, galleries and heritage sites. Some trails can be followed physically, some virtually and some are themed mini-websites, like a trail for Harry Potter fans. The trails are designed to give people ideas for things to do and places to visit.

www.culture24.org.uk

Resources

Bebo

Bebo is an acronym for 'blog early, blog often'. Members create their own profiles and there is a space for other members to leave comments. Profiles can include quizzes that offer multiple-choice questions and polls for friends to vote on photo albums. Individuals can upload an unlimited number of images, with a maximum limit of 48 per album. The profile will also have a blog, with a comments section. Members can also add a video box.

www.bebo.com

Clivir

Clivir is a free learning community where the user can be the teacher and the student. It allows users to browse 'classrooms' and learn from a variety of online lessons. You can also create your own lessons and classrooms or have questions answered by community members.

www.clivir.com

Del.icio.us

When a person joins this site, they have the tools to bookmark sites that they have previously visited and found interesting. Del.icio.us lists the link and the description, so that others can find it easily. The site takes a classification approach known as folksonomy, which uses the labels which people have created to categorise content. Popular areas include education, music, design and photography.

del.icio.us

Digg

A social news website which allows people to discover and share content from anywhere on the internet. Users can submit links, videos and stories as well as voting and commenting on content.

digg.com

Educast

"The EduCast Network wiki was established March 28, 2007 by Brian Grenieras a place for anyone interested in, or producing content about, education or educational podcasting to promote their own or favourite podcast site, feed, or resource."

educast.wikispaces.com

Ephotozine

This is an online photography magazine, with active forums and galleries. People can join for free and upload their photographs for others to view and offer comments. The idea is that by receiving feedback, individuals can improve their photographic skills. The site also offers news and tips on new techniques.

www.ephotozine.com

Family History

For family history information, do an internet search on the phrase, 'family history' and find a list of resources. This ranges from information offered by local councils, to the BBC site, Family History Research Timeline. The BBC site has a host of information online to help people begin their research, with signposts on where to go next.

www.bbc.co.uk/history/familyhistory/bloodlines

Facebook and other social network sites

Individuals can have a profile page in Facebook that contains information about themselves that others in their networks can see. They can add websites, blogs, videos, and songs. Being a member of a Facebook network gives people permission to view most of the profiles in that network and join most of the groups. They can quickly navigate to the profile of a friend or an organisation that they wish to know more about. They can upload photos and create photo albums. Their friends can then view their photos and leave comments. Facebook Chat lets members communicate in real time. People can also sign up to receive news feeds, which announce any changes to their friends' pages. Other social networking sites include Ning, Blackplanet, Tagged, Imeem, Orkut, Friendster and Hi5.

www.facebook.com

Find Any Film

This site allows users to find any film available in the UK in any format. Supported by the UK Film Council, it is a search engine giving information where films can be watched, downloaded, bought or rented.

www.findanyfilm.com

Flickr

This site helps people find images easily and learn about different topics through these images. For instance, if a person wishes to know more about the Jewellery Quarter in Birmingham, they might type in 'jewellery quarter' and see all the photographs in Flickr relating to this. People can upload and edit their own photos, as well as organise them into groups. There are also public and private communities where people can share their images and talk using a discussion board. Flickr also uses geo-tagging, where a picture can be tied to an exact spot on the planet.

www.flickr.com

Google and other search engines

Google is a highly popular search engine, although there are others such as Yahoo, Ask and Live.com. All of these are tools used by people who want to find out more about a particular subject. It is perhaps search engines, more than any other tool, which have revolutionised the speed with which people can locate the information they need on the web. Without these, it would be hard to know what information is available.

Google Earth

This is an online application that lets people view the earth in detail, based on satellite imagery. Layers of additional information can also be displayed, such as places of interest, roads and geographical formations. The latest version of Google Earth lets learners see 3D buildings in more cities than ever before, including San Francisco, Boston, Orlando, Munich, Zurich and dozens more. Pan around the city and get detailed descriptions of buildings. Learners can fly through the landscape and swoop from outer space to street level. There is also a sunlight feature, which lets people watch the sunrise and sunset from anywhere. There is an online community that learners can join to share information. Members offer their own research efforts on topics such as all the major league baseball stadiums in the US – just view the map and click on the thumbnail for a description of each. There are discussions on travel, the military, global warming and more.

bbs.keyhole.com/entrance.php?Cat=0

Moving Here

A website which explores, records and illustrates why people came to England over the last 200 years and what their experiences were and continue to be. It offers free access, for personal and educational use, to an online catalogue of versions of original material related to migration history from local, regional and national archives, libraries and museums. It also gives visitors to the site the opportunity to publish their own experience of migration.

www.movinghere.org.uk

Muxlim

Muxlim is a social networking service for Muslims. It is the equivalent of Yahoo, Facebook and Youtube. It was launched in 2006 by two entrepreneurs to create a Muslim social media website that would not expose users to vulgarity, offensive content or adult material.

www.muxlim.com

MySpace

This site lets people express themselves in a variety of ways, including by having their own customised home page. On this, they can upload music, information about themselves, plus their own images and videos. There is a place for others to leave messages. People can also share what they are doing using blogs, discussion forums, text messages and e-mail.

www.myspace.com

National Archives Online

As part of the National Archives, DocumentsOnline allows online access to the National Archives' collection of digitised public records, including both academic and family history sources.

www.nationalarchives.gov.uk/documentsonline/about.asp

PictureThis

"A friendly photography community that help each other create outstanding portfolios, take part in weekly project challenges, get meaningful feedback on photos, share knowledge and inspire each other to produce better work."

picturethis.channel4.com/about

Second Life

Second Life is a 3D online space that its members create. When a person joins Second Life, they become a character in this virtual environment. They have an online representation of themselves, an avatar. They can buy land, construct buildings, fly an aeroplane, buy clothing and more. People can set up businesses in Second Life, and create furniture, buildings and clothes, which people can then buy. They can use the content creation tools on the site to create whatever they want - they can work with Second Life members from around the globe. Being part of a simulation can help learners try new ideas and learn from their mistakes.

secondlife.com

Twitter

This is a website messaging service that has over two million users. People broadcast short (140 characters) text messages to their friends about what they are doing. People who use Twitter suggest that over time, they can gain a deeper understanding about their friends and the pattern of their lives. People use it as a tool to check facts, get answers to questions and seek advice. For instance, some people check with their Twitter network before making major purchases.

www.twitter.com

YouTube

The tagline for this website is 'broadcast yourself.' It allows users to view and upload videos to be shared with "friends, family and the world."

www.youtube.com

Videojug

A library of free online factual videos launched in 2006. Many of the videos are how to guides and there also interviews with a variety of expert speakers. Videos are organised under several categories including technology, food and drink, beauty and style, sports and fitness and health.

www.videojug.com

Wikipedia

Wikis are an online collaboration tool for manipulating text. Wikipedia is an online collaborative encyclopaedia which lets people create text and change text that others have added - and so on. There are currently over 2.5 million articles, with participants making thousands of changes per hour. There are instructions on how to edit.

www.wikipedia.org

Tools: hardware and software that adults use for learning

Brain Trainer

MyBrainTrainerTM.com contains short, fun individual exercises designed to stimulate different parts of the brain. The exercises provide immediate feedback with respect to performance (speed, accuracy, consistency, perceptual threshold), so people can see just how much they are improving. And, to keep things interesting and fun, as one's brain processing speed increases, the exercises automatically become more challenging.

www.brain-trainer.com.brain-trainer.com

Language courses online

This site offers links to a variety of websites that have resources offering the opportunity to learn another language. This includes BBC Languages online, MIT OpenCourseWare and the learning pages of the Open University. These all offer online resources, free of charge, for those wanting to get to grips with a new language. The different online courses may include images, text and video.

education-portal.com/articles/Free_Foreign_Language_Courses_Online.html

Learning communities

An online learning community is a common place on the internet where people work as a community to achieve a shared learning objective. They can communicate using text, audio and video. They can create blogs, which then help to create environments where people can offer their thoughts and reflect on the ideas of others.

Mac games

There is a wide range of games available for the Mac, but within that, there are games that can offer some ways to learn informally. These include Europa Universalis II, which is a historical strategy game. This covers world history from 1492 to 1792. The game authors have stayed true to historical accuracy, including period monarchs, military leaders and technological gains. Another game, Age of Empires, encourages players to build their own societies, military strategy and economics.

Max Trax

This CD-Rom from learndirect is a racing car game. The aim of the game is to race around the different tracks as quickly as possible, answering number questions as you go. To finish the race in pole position players need to record the quickest driving time and the best maths score. The game includes using mental arithmetic and using ICT. catalogue.learndirect.co.uk/courses/100216BS001

Nintendo DS

This hardware has the option of running learning games. For instance, Dr Kawashima's Brain Training, which lets learners play through a series of puzzles each day. At the end of each session the 'age' of their brain is calculated. The puzzles themselves range from simple maths questions to spot the difference, memorisation and comprehension. There is also a multiplayer mode for up to 15 people where they can try and compete to record the youngest brain age. Learners can also upload Professor Kageyama's Maths Training, where the key principle is repetition. The main exercise consists of 100 hundred simple maths problems combined into a 10 by 10 grid using the numbers at the top and side of the grid. Other exercises range from simple one-digit math problems to slightly more complex three-digit challenges. Other games for the DS include chess, Scrabble and Sight Training – a workout for the eyes.

Nintendo Wii

Wii offers a range of games that have learning benefits. This includes Wii Fit, which inspires players to improve their fitness. There is also Big Brain Academy, which lets players test themselves in five separate areas categorised as: Think, Memorise, Analyse, Compute and Identify.

Online dictionaries

Online dictionaries are a quick and easy way to look up words. Just type in the word and find the definition. Many online dictionaries also offer puzzles and games to reinforce new words. Some even offer a 'word of the day' service where people can see the definition and how it is used in a sentence. They can sign up to receive e-mails, defining a new word each day. Some dictionaries also offer a foreign language service, where people can see the Spanish or French word of the day, for instance.

These dictionaries include everything that their hardcopy equivalents offer, such as synonyms and histories of words. Many of these sites incorporate several dictionaries in one. Examples of online dictionaries include Dictionary.com, Cambridge Dictionaries Online and Onelook.com. Another site, Dictionary Link, lets people search a variety of dictionaries, word translators, thesauruses and encyclopaedias.

Online translators

Type in a word or phrase and choose the language(s) from which you wish to translate. Some sites will also translate an entire web page at the click of the mouse. The Word2Word.com site offers online dictionaries from a variety of languages, such as Dutch, Maori, Kurdish and Slovak. There is also Vietnamese, Nepali, Turkish and more.

PC Games

There is also a range of games which have clear learning benefits that can be played on the PC. These include Infinite Sudoku and Infinite Kakuro (a numerical crossword puzzle). There are also games to help improve card game skills such as Bridge and golf.

SLOOH

People who are interested in the night sky, but can't see it from their city location, or cannot afford their own telescope, can use SLOOH to remotely control and look through professional-grade astronomical telescopes sited at some of the best astronomy locations in the world. For a modest annual fee, members can schedule observations and watch them live on their PC.

www.slooh.com

Web Sudoku

Players can select from billions of puzzles online. They can ask for feedback on how they are doing and log the time it took them to solve the puzzle. Choose from easy to hard or evil. There are online tips and a forum, where players can support one another.

www.websudoku.com

Appendix 2:

Personal learning journeys: possibilities for adult informal learning using digital technologies

The scenarios below will be illustrated by a poster produced by Futurelab. For further information, please go to www.futurelab.org.uk/projects/adult-informal-learning.

These scenarios have been developed to illustrate just some of the multitude of ways in which technologies can support adult learning journeys. They are aimed at newcomers to the subject, as well as policy makers, practitioners and those in industry who may be interested in further exploring the potential of digital technologies to support adult informal learning journeys. These scenarios provide a starting point for considering the potential benefits of using technologies to support adult informal learning, and the challenges that learners may face around this issue. Although these scenarios resemble the experiences of real people, they are based largely on the findings from an extensive desk research project and do not represent the learning journeys of specific individuals. There are many ways in which adults learn informally both with and without technologies, and these scenarios are not exhaustive or intended to endorse particular models of learning journeys. Instead, they point to the many diverse opportunities that technologies can provide to enhance and transform learning, as well as some of the issues and difficulties that need to be considered when we seek to use technology to support adult informal learning.

1. Gaming: A Wii yoga experience prompts Sandra to learn more about her health

The story so far: drivers and objectives

Sandra is 72 and lives in a care home. Her balance has been affected by a recent stroke and she is a little shaky on her feet. Sandra wants to learn how to improve her health and become more mobile. Anita, the care home manager, suggests that using a Nintendo Wii Fit might help Sandra.

Challenges and needs

“I didn’t know where to start with the Wii Fit. I needed someone to show me what to do.”

Challenges: lack of confidence; fear of technology; lack of knowledge about technology and how to use it.

Needs: someone who understands her needs; advice and support in learning how to use technology to address needs; access to a simple, fun and easy-to-use method to encourage gentle movement.

What she did: activity, context, technology, learning

“The yoga was a revelation. I’ve been using the Wii Fit for five weeks now and I’ve learned how to gently stretch my muscles.”

“A balance mat is linked to the computer, which gives instant feedback. You can quickly see how well you are doing and the muscles that you need to work.”

“At first, I didn’t want to do the exercises alone. So, my friend and I did them together, taking it in turns. We watched each other to make sure we were doing the exercises properly and to give support in case we began to wobble.”

Further challenges and needs

“With support from an instructor, I thought I might be able to learn how to keep improving my health.”

Anita suggested that they go to the library and use the internet to search for a local class.

Challenges: lack of information about local provision; not knowing how to find further information; not being able to use the internet.

Needs: a good local yoga instructor; easy-to-access information about local provision; help accessing that provision; access to an internet connection.

What next? Consequences and new opportunities

- Now that Sandra is more mobile, she is thinking about walking to the local college to take yoga and Pilates classes.

- Sandra has purchased a yoga DVD. Some of the other residents now join her in regular ‘yoga sessions’ using the common room TV.
- Sandra now walks to the local library to attend a bite-size computer course and she uses the library’s internet provision to take part in an online stroke survivors’ support group.

2. Mobile technologies: Jim begins to learn Spanish – from his mobile phone

The story so far: drivers and objectives

Jim is 23 years old. He left school before he could take his GCSEs and went to work on a construction site. He later joined a Construction Apprenticeship Scheme and achieved his Level 2 NVQ. After several holiday visits to Spain, Jim hopes to live and work there – after he learns some Spanish.

Challenges and needs

Jim wanted to learn conversational Spanish, but did not want to attend an evening class. “When I left school, I said I’d never enter a classroom again. It was more than enough for me to go to college.” He rang the course tutor from his Apprenticeship programme to ask his advice.

Challenges: negative previous experience of formal education; lack of confidence; lack of time.

Needs: flexibility in timing and location of learning; someone to give tailored advice about what is available outside the formal system.

What he did: activity, context, technology, learning

“My course tutor for my Apprenticeship suggested some language learning courses that I could do on my mobile phone.”

Jim was excited at this prospect because he could learn in his own time and at his own pace.

“I found a language service that sends ten phrases a day to your mobile phone. You hear the words pronounced by a native speaker and then you can listen to these as many times as you want. After that, you can repeat the word using your phone to record your pronunciation. Then you play back your recording and compare that with the native speaker.”

Further challenges and needs

“The library had helped me with information about my Apprenticeship programme, so it seemed a decent place to start.”

Challenges: continued concern about entering formal educational settings; lack of information about alternative learning opportunities and provision.

Needs: more advanced learning opportunities; flexible provision; a way of meeting Spanish speakers; easily accessible and personalised information about future opportunities and encouragement to take them.

What next? Consequences and new opportunities

- Jim is considering signing up for an online Spanish course with the local college to expand his vocabulary.
- Jim has now joined a Spanish-speaking chat room to develop his conversational skills and is flying to Spain in three weeks for job interviews. “One of the foremen seemed quite pleased that I had made the effort to learn some Spanish.”
- Jim plans to use the local library and the internet to learn more about Spain and Spanish culture.

3. The internet: Using the internet to learn in new ways

The story so far: drivers and objectives

Elaine is 41, has always been interested in her family's Irish culture and wanted to learn more about Ireland. She is bedridden with severe MS and finds it hard to sit up for long periods. Her husband bought her a laptop to help her connect with the outside world.

Challenges and needs

Elaine did not have full mobility in her hands. She searched online and found that she could order a big keyboard with a rollerball.

"The keys are much bigger, so it is easier and quicker to use. The roller ball is simpler to use than the mouse as I don't have to hold it."

Challenges: lack of mobility; isolation caused by illness.

Needs: specially designed technology; online learning opportunities; ways to interact with people when unable to leave the house.

What she did: activity, context, technology, learning

"Once I found a way of using my laptop easily, nothing held me back. I listened to music videos on sites such as YouTube and MySpace. I found discussion forums about Irish bands as well as Irish politics and I downloaded podcasts on Irish history. I also used information sites, such as Wikipedia and Culture Ireland."

"I had been spending a lot of time researching, but it didn't have any focus. My goal was to find someone who could help me identify the gaps in my knowledge and then offer me some direction. I wondered if an online course would work for me because I can't travel easily."

Further challenges and needs

"I never know with my illness how I will feel on any particular day. My main worry was falling behind with the coursework."

Challenges: illness causes varying degrees of energy; continued limited mobility; lack of knowledge about how to take learning further.

Needs: a tutor to help facilitate further learning; flexible, self-paced, online quality provision.

What next? Consequences and new opportunities

- Elaine has been accepted onto an online course in Irish Studies.
- Elaine is making contact with other family members via e-mail and Instant Messenger. "The hardest part of the MS for me has been watching my life shrink. I had begun to feel isolated."
- Now she feels more comfortable with the subject, Elaine is writing a blog where she reflects on issues related to Irish politics.

4. Broadcasting: Watching TV leads Grace to self-discovery

The story so far: drivers and objectives

Grace is 55 and has three A levels. She has worked in the human resources department of a large company for ten years. Recently, she has been watching 'Who Do You Think You Are?' on the BBC and felt inspired to learn more about her own West Indian heritage.

Challenges and needs

"I have always had a push-pull feeling about researching our family history. My mother died when I was young and somehow we never talked about when or how my parents came to live in England. I knew I would be starting out with very little information. Also, I was put off by the idea of writing to Jamaica for birth certificates and official documents, then waiting months for a reply."

Challenges: mixed emotional feelings; put off by bureaucracy; lack of knowledge about where to begin.

Needs: motivation and encouragement; information about how to research family background.

What she did: activity, context, technology, learning

The 'Who Do You Think You Are?' site has a beginner's guide to family history research, which Grace took step by step. Breaking the task down into small chunks kept her from feeling overwhelmed.

"I started by setting out what I already knew and then I began to interview my father, who is quite elderly. The BBC site linked with other helpful sites such as National Archives online and Ancestry.co.uk. These all helped me to discover that my father sailed into Plymouth in 1955 and my mother arrived two years later. I found documentation that showed that my maternal grandfather was a poet who lived in Kingston."

Grace plans to further investigate the family history on both parents' sides.

Further challenges and needs

"I am now using the National Archive site to take my research to the next level. I have even listened to a number of podcasts that teach you about good research habits and the materials you need to explore."

Challenges: not knowing how to take research forward to next level.

Needs: further information about research methods and learning opportunities.

What next? New opportunities

- Grace will be attending 'Who Do You Think You Are? Live'. "I can't wait to meet experts from the National Archives who might help me continue to fill in the gaps of my family history."
- Grace's visit to the Imperial War Museum sparked her interest in the role of West Indians in modern Britain. She has visited exhibitions, including the Cuming Museum in London and the Manchester Museum of Science and Industry (MOSI).

- Grace has joined a poetry evening class at her local further education college.

"I have always loved writing poetry – now I know where I get it from."

5. Social networking: Sharing photography with people around the world helps Connor to focus on becoming a better photographer

The story so far: drivers and objectives

Connor is 38, has no qualifications, and works as a cleaner for the local council. His passion is photography. His wife bought him a digital camera for Christmas. He wants to improve his photography and isn't sure where to begin although he knows he will have to learn to use the computer. His aim is to learn to edit the images digitally and find a way to share ideas with others.

Challenges and needs

"My son's school held an after-school computer club for parents. I went along and the kids showed us how to surf the internet."

Challenges: no previous experience of using a digital camera; very little experience of using computers; not knowing other people with a common interest.

Needs: support to learn about computers and digital cameras; a way to share his photography with others and discuss it; a computer with an internet connection.

What he did: activity, context, technology, learning

"After I learned a bit more about how to use a computer, I joined an online photographic community and managed to upload some images. People from all over the world responded to my photos and their tips were really valuable."

"I learned where to crop pictures for more impact and how to improve the composition of an image."

Connor also found that he improved his own work by studying other people's images and the comments they received.

A group of people with similar interests has emerged and they make sure they comment on each other's work.

"You have to give feedback in order to get feedback," explains Connor. "The quality of my pictures has improved and I'm now focused on becoming an even better photographer."

Further challenges and needs

Connor liked the idea of a course, but was put off by the requirement of submitting essays because he was slow on a keyboard.

"I found a games site on the Internet that helps you improve your typing skills. It was great fun and I can now find my way around a keyboard reasonably well."

Challenges: slow using a keyboard; lack of time; lack of knowledge about how to take his learning forward to the next level.

Needs: a fun way to improve his typing skills; information about local provision.

What next? Consequences and new opportunities

- Connor has now registered for a digital photography course at the local college.
- Connor has joined the Royal Photographic Society. "There is an online forum that's really helpful. I'm hoping to submit my work for a distinction award." The work Connor does on the course will help him to develop his portfolio.
- The library has invited Connor to enter some of his photographs into an exhibition of local photographers' work.

6. Community radio: Padma becomes a broadcasting success

The story so far: drivers and objectives

Padma is 48. She has four GCSEs and a qualification in book-keeping. She works part-time, but her passion is Punjabi music and she wants to learn more about the musicians who make this music. Padma's local

community radio station regularly asks people to volunteer to make programmes. With her children away at university, Padma is keen to get involved.

Challenges and needs

Padma didn't feel confident in her abilities once she saw the equipment at the studio.

"They told me that the station also plays over the internet and offers podcasts that visitors can download. I had no idea what a podcast was."

Challenges: lack of confidence; lack of knowledge about equipment.

Needs: initial on-the-job training leading to more in-depth learning opportunities.

What she did: activity, context, technology, learning

"I'd never been in a radio station before," Padma explains.

She met another volunteer who offered to show her around the studio. The station manager, Aisha, asked Padma to come back the following week to see how things worked in more detail.

"I saw that my local library had an afternoon session on using the internet, so I went along to that first. The people at the station kept talking about things like 'internet streaming' and I wanted to learn as much as I could before I went back."

"I went back to the station for the day, along with several other potential volunteers. Aisha showed us how to use the computers and the sound equipment. She got us working in pairs to create a programme - and we did it. After that, a few of us worked together, making broadcasts every week. Aisha offered help when we needed it."

Further challenges and needs

Padma wanted to bring her programmes to life with interviews.

“The challenge was how to do the interviews without having to travel – I certainly couldn’t afford a trip to India.”

Challenges: not able to travel; lack of finances; lack of information about advanced use of technology.

Needs: more advanced education on broadcasting; more information about how to continue using digital technologies for research after broadcasting course has finished.

What next? New opportunities

- Padma regularly interviews a variety of Indian musicians from all over the world. She hosts a weekly show for her local community radio station, which features interviews with these musicians.

- Padma’s community radio station offers a 12-week course in broadcasting for women. She has been accepted onto this course, which will begin in the autumn.

- Padma has designed her own website featuring different musicians. It has interviews with them covering their personal history, the types of instruments they play and information on tour dates. The site has many visitors who download the podcasts that Padma has made.

Notes and references

- ¹ Knowles, Malcolm S, Holton III, EF and Swanson, RA (2005) *The Adult Learner* (Sixth Edition), Burlington, Mass: Elsevier: 18.
- ² Researchers such as Schugurensky highlight that informal self-directed learning can be intentional, incidental or a matter of socialisation (Schugurensky, Daniel (2000) *The forms of informal learning: towards a conceptualisation of the field*, The Research Network for New Approaches to Adult Lifelong Learning (NALL) Working Paper #19). Whilst the latter two categories are important, they relate to a set of complex sociological issues which are outside the scope of this report.
- ³ Schugurensky, 2000.
- ⁴ NIACE, for example, is hosting an independent Inquiry into the Future for Lifelong Learning which is chaired by Sir David Watson. The inquiry “is looking at the critical issues that will face our society in the coming decades, and considering how adult learning can equip us to meet these challenges”. The work of the inquiry focuses around ten themes: prosperity, employment and work; demography and social structure; well-being and happiness; migration and communities; technological change; poverty reduction; citizenship and belonging; crime and social exclusion; sustainable development and the roles of the public, private and voluntary sectors. The Inquiry was launched in September 2007 and will report in June 2009.
www.niace.org.uk/lifelonglearninginquiry/default.htm
- ⁵ See McNair, Stephen. (2009) *Demography and Lifelong Learning: IFLL Thematic Paper 1*, NIACE. In this paper, McNair points to the fact that that “there are now 11.2 million people over state pension age, and in the last year, the people aged over 85 grew by 6% to 1.2 million”. Not only this but the population in general is also growing and an additional 17% growth is expected in the next 25 years [p.12].
- ⁶ In addition to this, people are already learning more than ever before. Researcher David Livingstone suggests that “by virtually every measure on every dimension of learning, people are now spending more time acquiring knowledge that ever before in the history of our continually learning species” (Livingstone, D (1999) ‘Lifelong learning and underemployment in the knowledge society: a North American perspective’, *Comparative Education* Vol 35, No 2: 165-6).
- ⁷ McNair (2009)
- ⁸ See, for example, Field, John (2008) *Adult Learning and Mental Wellbeing* (www.niace.org.uk/lifelonglearninginquiry/docs/John-Field-wellbeing-evidence.pdf), and Feinstein, L et al (2008) *The Social and Personal Benefits of Learning: A Summary of Key Findings*, Centre for Research on the Wider Benefits of Learning, Institute of Education: 13; Foresight Mental Capital and Wellbeing Project (2008) *Final project report - Executive summary*, The Government Office for Science, London; Feinstein, L, Vorhaus, J and Sabates, R (2008), *Foresight Mental Capital and Wellbeing Project - Learning Through Life: Future challenges*, London: The Government Office for Science.
- ⁹ Feinstein et al, 2008: 18.
- ¹⁰ Feinstein et al, 2008: 19. Many commentators also argue that adult informal learning can increase social capital- “the existence of networks, norms and levels of trust that promote collective action between members of a given social grouping.” Field, J and Spence, L (2000) ‘Informal Learning and Social Capital’ in Coffield, F. (ed) (2000) *The Necessity of Informal Learning* Bristol: The Policy Press.
- ¹¹ Knowles 2005 and Tough, A (2002) *The Iceberg of Adult Informal Learning*, Toronto: The Research Network for New Approaches to Adult Lifelong Learning (NALL), Working Paper Number 49.
www.oise.utoronto.ca/depts/sese/csew/nall/res/49AllenTough.pdf
- ¹² See Knowles, 2005; Tough, 2002; Livingstone, 1999; Coffield, 2000.
- ¹³ Livingstone 1999; 170.
- ¹⁴ During the preparation of this report, Futurelab researchers were engaged in close conversation with the authors of ‘The Learning Revolution’

- ¹⁵ DIUS (2008) Informal Adult Learning – Shaping the Way Ahead
www.dius.gov.uk/consultations/~//media/publications/Informal_Adult_Learning_consultation
- ¹⁶ DIUS (2009) The Learning Revolution
www.dius.gov.uk/skills/engaging_learners/informal_adult_learning/white_paper.aspx
- ¹⁷ DIUS, 2009: 14.
- ¹⁸ DIUS, 2009: 18.
- ¹⁹ The DIUS White Paper addresses what we have been calling non-formal learning (ie adult education provision) as well as informal learning.
- ²⁰ The Learning Revolution also suggests that informal adult learning can contribute to 21 National Indicators and 5 Public Service Agreements (DIUS, 2009: 46)
- ²¹ DIUS (2007) World Class Skills: Implementing the Leitch Review of Skills in England http://hm-treasury.gov.uk/d/leitch_finalreport051206.pdf and Leitch, Lord S. (2006) Leitch Review of Skills: Prosperity for all in the global economy - world class skills. Final Report
www.dcsf.gov.uk/furthereducation/uploads/documents/2006-12%20LeitchReview1.pdf
- ²² Leitch, Lord S (2006) Prosperity For All in the Global Economy - World Class Skills and The Leitch Review of Skills final report.
hm-treasury.gov.uk/d/leitch_finalreport051206.pdf
- ²³ DFEE (1998) The Learning Age, Green Paper.
www.lifelonglearning.co.uk/greenpaper
- ²⁴ Department for Communities and Local Government (July 2008) Cohesion Delivery Framework: Overview.
www.communities.gov.uk/documents/communities/pdf/898656.pdf
- ²⁵ Department for Communities and Local Government (2008) Communities in Control: Real people, real power, White Paper.
www.communities.gov.uk/documents/communities/pdf/886045.pdf
- ²⁶ It is also accompanied by increased attention to family learning and parental engagement in children's learning. More information about this policy context and a review of research in the area can be found in a Futurelab report on family learning.
www.futurelab.org.uk/projects/learning-in-families
- ²⁶ Department for Education and Skills (DfES) (2005) Harnessing Technology: Transforming learning and children's services.
www.dcsf.gov.uk/publications/e-strategy/docs/e-strategy.pdf
- ²⁷ Becta (2008) Harnessing Technology: Next Generation Learning 2008 -14, Coventry: Becta.
publications.becta.org.uk/display.cfm?resID=37348
- ²⁸ The Harnessing Technology Strategy will be implemented in the context of increasing attention to the role of technology in reshaping modern Britain. Lord Carter's Digital Britain report, for example, will be published in the early summer of 2009. The interim report published in January 2009 began to set out a programme for the creation of a digital Britain including 5 objectives to be achieved by 2012. These objectives include upgrading and modernising Britain's digital networks, the creation of a 'dynamic investment climate for UK digital content,' quality UK content, fairness and access for all and developing the infrastructure, skills and take-up which would enable online delivery of public services. DCMS and BERR (2009) Digital Britain: The Interim Report.
www.culture.gov.uk/what_we_do/broadcasting/5944.aspx
- ²⁹ Becta (2008) Extending Opportunity: Final Report of the Minister's Taskforce on Home Access to Technology. More information about Home Access can be found in section 7.

- ³⁰ Unless otherwise stated, all of the data in Section 5 is taken from Ipsos MORI and Futurelab (2008) 'Adult informal learning and family learning: A research report prepared by Ipsos MORI for Futurelab'
- ³¹ Livingstone 1999: 500.
- ³² This typology can be found in Houle, C (1961) *The Inquiring Mind*, Madison: University of Wisconsin Press. It is also quote in Knowles 2005.
- ³³ Tough 2002.
- ³⁴ See, for example, Fuller, A, et al (2003) *Impact of Informal Learning at Work on Business Productivity* (October 2003), London: BERR.
www.berr.gov.uk/regional/skills/r-and-e-pubs/business-benefits/october-2003/page14776.html
- ³⁵ Tough 1999: 6.
- ³⁶ Many commentators point to the development, over the last 8 years, of the concept of Web 2.0. The term Web 2.0 is commonly used to refer to a 'second generation' in web development and in how the internet is used. Web 2.0 has seen the proliferation of more interactive and collaborative applications such as social networking sites and the rise of blogging, wikis, podcasts and other sites which allow user generated content. These web 2.0 developments mean the internet is no longer just about the transmission of information but can also be used for active participation in the construction of digital texts and this has many implications for the world of adult informal learning.
- ³⁷ MySpace attracted more than 114 million visitors aged 15 and older in June 2007. This is a 72% increase since June 2006. Facebook had even stronger growth over the same period, increasing by 270% to 52.2 million visitors. Bebo rose by 172% to 18.2 million visitors (comScore 2007). Press Release: Social networking goes global, 31 July 2007.
www.comscore.com/press/release.asp?press=1555
- ³⁸ See, for example, Owen, M et al (2006) *Social Software and Learning*, Futurelab; Boulos, M and Wheelert, SN (2007) 'The emerging Web 2.0 social software: an enabling suite of sociable technologies in health and health care education', Health Libraries Group, as well as numerous papers by Dannah Boyd Boyd which can be found at:
www.danah.org/papers
- ³⁹ UK visits to blogs have now reached an all-time high. These account for 1.19% of all UK internet traffic - around one in every 84 site visits and, although traditional news and media websites still receive five times more visits than blogs, visits to blogging sites continue to grow. Over the past three years, visits have increased by 208%, compared to 70% for the more traditional news and media sites (Goad, R and Stringleman, E (July 2008), Hitwise, UK Online Media Round-up).
- ⁴⁰ See, for example, Park, Mi Hee & Lee (2007) 'Learning as a meaning-making process in blogging' which argues that blogs enable learners to write posts reflecting on their learning and comment on each other's posts, thereby participating in the collaborative construction of shared understandings.
linc.mit.edu/conference/presentations/young_park.ppt
- ⁴¹ Twitter's popularity is sky-rocketing, with over two million members as of June 2008. According to Twitter's figures, it took Twitter over 550 days to get to 500,000 users (around the first half of October 2007). Some 150 days later, there were one million members. Some 50 days later, there were 1.5 million Twitter users. Another 50 days later, Twitter had over two million users (end of June 2008). See Section 5 for more information (Twitter Facts (June 2008) twitterfacts.blogspot.com)
www.twitter.com

- ⁴² Further information on games and learning (primarily regarding children's learning) can be found at www.futurelab.org.uk/projects/games-and-learning. Research and commentary on this issue also includes: de Freitas, S, Savill-Smith, C and Attewell, J (2006) *Computer Games and Simulations for Adult Learning: Case studies from practice*, London: Learning and Skills Network. www.lsneducation.org.uk/user/login.aspx?code=062546&P=062546PD&action=pdfdl&src=XOWEB Prensky, M (2001) *Digital Game-based Learning*, New York: McGraw-Hill; Oblinger, D (2006) Games and learning, *EDUCAUSE Quarterly*, Number 3 net.educause.edu/ir/library/pdf/EQM0630.pdf
- ⁴³ Facer, K (2003) *Computer Games and Learning*, Bristol: Futurelab. Although these are developed in relation to children, they can also be applied to adult learners.
- ⁴⁴ Many commentators point to the emerging trend to convergence. The independent regulator for the UK communications industry, Ofcom, has defined convergence as "the ability of consumers to obtain multiple services on a single platform or device – or obtain any given service on multiple platforms or devices" (Ofcom 'What in Convergence?' www.ofcom.org.uk/media/speeches/2008/02/cttsubmission1.pdf - presentation on convergence, 2008). Researcher Henry Jenkins argues that it is important to think of convergence as an ongoing process rather than an end state. He claims "there will never be one black box controlling all media. Rather, thanks to the proliferation of channels and the increasingly ubiquitous nature of computing and communications, we are entering an era where media will be everywhere, and we will use all kinds of media in relation to one another". Jenkins points to new and emerging "information structures" which will pose additional challenges and bring additional benefits for adult informal learning and which suggest that we need to give ongoing attention to the question of how digital technologies will impact adult informal learning in the future (Jenkins, H (2001) *Convergence? I diverge*, MIT Technology Review).
- ⁴⁵ See www.futurelab.org.uk/projects/create-a-scape for more information on mediascapes. Further examples about the application of mobile devices for learning can also be found on Futurelab's project pages (www.futurelab.org.uk). See, for example, www.futurelab.org.uk/projects/mobimissions. Whilst these projects are directed at younger learners, similar approaches and applications could be adapted for adults.
- ⁴⁶ Sharples, Taylor, and Vavoula, for example, suggest that, just as educators now see learning as a personalised activity, so too are digital technologies offering personalised services such as music and podcast play-lists (Sharples, M, Taylor, J and Vavoula, G (2005) *Towards a Theory About Mobile Learning*, University of Birmingham and The Open University, www.mlearn.org.za/CD/papers/Sharples-%20Theory%20of%20Mobile.pdf). Other research in this area includes Pachler and Cook (2008) *Mobile, informal and Lifelong learning*, www.londonmobilelearning.net/downloads/Pachler&Cook_Budapest_2008.pdf and Pachler, N. (2007) *Mobile Learning: Towards a Research Agenda* WLE Centre, IoE.
- ⁴⁷ The Open University, for example, is renowned for its use of TV and broadcasting and the BBC's mission is to inform, educate and entertain..
- ⁴⁸ DIUS (January, 2008) Press release: Empowering learners in the modern age - Denham consults on future support for informal adult learning. www.dius.gov.uk/press/15-01-08.html
- ⁴⁹ For further information, see DCMS, 2006 *The Community Radio Sector: Looking to the Future*
- ⁵⁰ Penland, PR (1977) *Self-planned Learning in America*, Pittsburgh: University of Pittsburgh.
- ⁵¹ DCMS and BERR (2009)

- ⁵² See, for example, Hawkey, R. (2002) "The lifelong learning game?" *Computers and Education*, 38: 5.20.; Friesen, N. And Anderson, T. (2004) "Interaction for Lifelong Learning", *British Journal of Educational Technology*, 35, 6: 679-87. Shuklina, e. (2001) "The technologies of self-education" *Russian Education and Society* 43, 2: 57-78.
- ⁵³ DIUS, 2009:13
- ⁵⁴ DIUS, 2009: 38
- ⁵⁵ DCMS and BERR, 2009
- ⁵⁶ For a relevant research report see, for example, Bates (2003) T-Learning Study – A study into TV-based interactive learning in the home. Final Report. www.pjb.co.uk/t-learning/t-learning%20Final%20Report%20-%20Key%20Highlights%2005-05-03.doc
- ⁵⁷ For further information see http://www.eukn.org/eukn/themes/Urban_Policy/Social_inclusion_and_integration/Quality_of_life/digital-bridge-shoreditch_1059.html
- ⁵⁸ See www.digitv.gov.uk
- ⁵⁹ Communities and Local Government (2008) *Delivering Digital Inclusion: An Action Plan for Consultation*.
- ⁶⁰ Digital Inclusion Team (2007) *The Digital Inclusion Landscape in England: Delivering Social Impact through Information and Communications Technology*.
- ⁶¹ CLG 2008.
- ⁶² Selwyn, N, Gorrard, S and Furlong, J (2006) *Adult Learning in the Digital Age: Information Technology and the Learning Society*, London & New York: Routledge.
- ⁶³ Social Exclusion Unit (2005) *Inclusion Through Innovation*. www.neighbourhood.gov.uk/case.asp?id=1617.
- ⁶⁴ digitalinclusion.pbwiki.com/About+Us
- ⁶⁵ For further information on research under the DICB programme, see www.communities.gov.uk/communities/digitalinclusion/research. Further information about Solutions4inclusion can be found at www.esd.org.uk/solutions4inclusion.
- ⁶⁶ CLG 2008.
- ⁶⁷ See www.ukonlinecentres.com/consumer/ and Becta 2008.
- ⁶⁸ Becta (2008) "Board Meeting September 2008. Paper 3 – Home Access" http://foi.becta.org.uk/content_files/corporate/resources/policy_and_strategy/board/0809-sept/paper3_adult_access.pdf
- ⁶⁹ Lievrouw, L and Farb, S (2003) *Information and equity*, in Cronin, B (ed) *Annual Review of Information, Science and Technology* Vol 37, New York: Wiley. See also Yu, L (2006) *Understanding information inequality: making sense of the literature of the information and digital divides*, *Journal of Librarianship and Information Science*, 38, 4: 229-252 and van Dijk, J (2006) *Digital Divide Research, Achievements and Shortcomings*.
- ⁷⁰ DCMS and BERR, 2009.
- ⁷¹ Selwyn and Facer (2007) *Beyond the Digital Divide: Rethinking digital inclusion for the 21st Century*, Futurelab.
- ⁷² Resnick, Mitchel (2000) *Rethinking Learning in the Digital Age*. llk.media.mit.edu/papers/mres-wef.pdf.
- ⁷³ See Knowles 2008: 7-17 for a useful summary of some of these theories.
- ⁷⁴ Coley, H, Hodkinson, P and Malcolm, J (2003) *Informality and Formality in Learning*, Learning and Skills Research Centre.
- ⁷⁵ See, for example Gorard, S, Fevre, R and Rees, G (1999) *The apparent decline of informal learning*, *Oxford Review of Education* 25: 5.

- ⁷⁶ Mechanisms which aim to measure the use of technology to support learning within adult education can also be useful here. Becta's e-maturity tool, for example, aims to measure the "capacity of a college or learning institution to make strategic and effective use of technology to improve educational outcomes" (feandskills.becta.org.uk/display.cfm?page=1897).
- ⁷⁷ There are also numerous resources for this purpose. See, for example, Jara, M & Mohamad, F. (2007) Pedagogical Templates for e-learning WKE Centre Institute of Education or Beetham, H. & Sharp, R. (2007) Rethinking Pedagogy for a Digital Age London & New York: Routledge. There are many other examples.
- ⁷⁸ In 2006 NIACE published an evaluation report summarising the results of two funding programmes which aimed to support the use of technology for adult and community learning. In general, the report found that these projects were successful in stimulating experimental and innovative developments in the use of ICT. However, the report also found that the projects needed a high level of support from NIACE and common difficulties encountered included technical problems and lack of experience and appropriate skills. The report therefore concluded that there was a need for continued investment in developing and embedding e-learning. See Atwere (2006) Technology to Enhance Adult Community Learning (TrEACL) and Content for Adult and Community Learning (CACL) Projects: Evaluation Report: LSDA and NIACE for further information. The material in this section was also enhanced by informal discussions between Futurelab researchers and members of the NIACE ICT and Learning team.
- ⁷⁹ Tough, A (1979) The Adult's Learning Projects, Toronto: Ontario Institutes for Studies in Education.
- ⁸⁰ Thus academics such as Pachler and Cook (2008) claim that interconnectedness is a key issue in the new cultural ecology of learning.
- ⁸¹ Becta, for example, highlights that three quarters of young people currently use social networking sites and 90% use e-mail or instant message services. partners.becta.org.uk/index.php?section=es&catcode=_es_ba_ht_03.
- ⁸² A recent Ipsos-MORI poll commissioned by Futurelab found that nearly a quarter (23%) of adults were unable to cite any benefits of using technologies for learning.
- ⁸³ Recognising the role of the learner's prior experiences in one of the fundamental tenets of Malcolm Knowles' andragogical model, which is a system of assumptions which Knowles argued should inform attempts to facilitate adult learning (see, for example, Knowles 2005: 64-72).
- ⁸⁴ See, for example, Pachler, N and Cook, J (2008) Mobile, informal and lifelong learning: A UK policy perspective, paper presented at Mobile Communication and the Ethics of Social Networking, Hungarian Academy of Sciences, Budapest, 25-27 Sept 2008.
- ⁸⁵ Helsper, EJ (Oct 2008) Digital Inclusion: An Analysis of Social Disadvantage and the Information Society, Oxford Internet Institute and Department for Communities and Local Government.
- ⁸⁶ In the Ipsos-MORI poll commissioned by Futurelab, more than two in five adults reported that they experience barriers in using technologies for informal learning.
- ⁸⁷ DIUS's aim to create an "open space movement" which is laid out in the 2009 Learning Revolution is particularly welcome here. It remains to be seen, however, how this will be implemented. (DIUS: 2009)
- ⁸⁸ See, for example, Selwyn and Facer (2007) Beyond the Digital Divide: Rethinking digital inclusion for the 21st century, Futurelab.
- ⁸⁹ See section 7 for some initial broad suggestions for measures which may support digital literacy.

⁹⁰ Mitchel Resnick (2002), for example, draws our attention to the fact that “while new digital technologies make a learning revolution possible, they certainly do not guarantee it” and suggests that we need to ensure that digital technologies are not used to reinforce outmoded approaches to learning where learning is simply regarded as the transmission of information.

⁹¹ See, for example, Park, Mi Hee and Lee (2007) who give the example of using a blog as a learning diary. This enables learners to write posts reflecting on their learning and comment on each other’s posts, thereby participating in the collaborative construction of shared understandings. This is a very different model of learning than simply being given a list of information to learn
(linc.mit.edu/conference/presentations/young_park.ppt).

⁹² Evaluations of programmes to promote technology to enhance adult community learning have cited multiple benefits of using ICT and other technologies in non-formal adult learning. They have also identified several difficulties that may be encountered and the resulting need to ensure that staff are given the necessary skills and tools to enable them to successfully make use of technology as a learning medium and delivery mechanism. See for example Atwere (2006).



About Futurelab

Futurelab is passionate about transforming the way people learn. Tapping into the huge potential offered by digital and other technologies, we are developing innovative learning resources and practices that support new approaches to education for the 21st century.

Working in partnership with industry, policy and practice, Futurelab:

- incubates new ideas, taking them from the lab to the classroom
- offers hard evidence and practical advice to support the design and use of innovative learning tools
- communicates the latest thinking and practice in educational ICT
- provides the space for experimentation and the exchange of ideas between the creative, technology and education sectors.

A not-for-profit organisation, Futurelab is committed to sharing the lessons learnt from our research and development in order to inform positive change to educational policy and practice.

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