Delivering Digital Inclusion

A response to the consultation from the Association for Learning Technology

The Association for Learning Technology (ALT) welcomes the opportunity to be involved in the consultation on the Action Plan for Digital Inclusion[1].

ALT is the leading UK body bringing together practitioners, researchers, and policy makers in learning technology, within and beyond FE and HE. There is a brief overview of ALT in the Annex on page eight.

As a relatively specialised association, we have restricted our more detailed responses to those questions that are in areas where we have the expertise and interest to comment. Nevertheless, we also have members who are research workers working in the area and we have links to many relevant organisations. Some of these have been involved in drawing up this response. We would be happy to help play a role in bringing this expertise to bear as part of an implementation plan, including through membership of the expert group and its subgroups. This would be a natural role for us to play in fulfilling our charitable object. We also have sister organisations in other parts of the world and so can also bring an international perspective to the discussion.

Our main "messages" to the consultation are that:

- successful action depends much more on training and education than on technology and especially on appropriate support through the learning process;

- individuals will invest time and effort in learning only when they perceive a significant benefit as a result of so doing, and when they believe that they have a good chance of success.

Thus action must be focussed on identifying and promoting good channels of learning, identifying the benefits that will "sell" learning to the currently digitally disadvantaged, and addressing perceptions that success is unlikely. None of this is new and it is covered in the Action Plan; but perhaps it is not yet emphasised enough.

Inevitably it is the role of governments to seek solutions to incompletely posed problems and the role of research workers and other experts to be more cautious and urge a better understanding of the problem before too much commitment of public funds. Nevertheless the time seems ripe to take significant real measures to address what is identified by the Action Plan as a problem that is both deepening and widening in the UK.

Accordingly, we strongly welcome the consultation and hope that it leads rapidly to action and funds.

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[1] http://www.citizensonline.org.uk/site/media/documents/2192_DeliveringDigitalInclusionActionPlan_241008.pdf

Question1: How far do you agree with the definition of digital inclusion and the Nature of the problem set out in Chapter 1?

The analysis overall is solid and, whilst it is possible to suggest that there is a spectrum rather than a dichotomy between direct and indirect use of technologies, the division is helpful for the argument.

However, it is not accurate (nor helpful) to refer to the pace of technological change as being exponential. Any given technology will go through phases of rapid growth and others of stabilisation, each phase of growth following a well known curve. There are fortunately some signs that some of the technologies being considered here are at or nearing the stabilisation end. This pattern can be seen with computers, programmable audio and video devices, landlines, and mobile phones. For instance, the growth in mobile phone penetration in the UK is definitely not currently exponential and growth in the number of land lines has been non existent for some years – globally mobile phone usage is growing faster but that is powered by other countries and even in India and China growth is no longer exponential.

Important areas where progress continues to be slow are that of software and especially operating environments, and that of user interfaces. The ubiquity of certain devices such as large flat screen devices at low cost has been promised since the 1970s and has not happened; and there are other examples. The use of facilities on interfaces to, say, DVD players has hardly changed (even if they are provided) and this is true whether or not they are integrated or standalone.

Web 2.0 is a significant step forward. The talked of Web 3.0 is some way off and not yet properly defined. (It may be best if the document as eventually produced makes no mention of Web3.0 but instead talks about specific functionality such as the ability to control normal household devices remotely and their ability to interact with one another and the human.) However, many government sites are still firmly in a transmissive (i.e. not yet Web 2.0) mode.

Global recession is likely to lead to a period of consolidation as R&D budgets are cut and especially as users lengthen their replacement cycles and demand more backwards compatibility. This makes it a good time to act on digital exclusion as the target may move less over the next few years than in the previous few. It may also slow the rate of "convergence".

The emphasis on the community as well as on the individual citizen, and on the need for partnership to address the problems, is well made. Benefits of digital inclusion accrue to others as well as to the person who ceases to be excluded. Ownership of the problem is thus a wide one for UK society.

All of this means that it is now sensible and reasonable to suggest to the excluded that they can "catch up" with some chance of success.

Question 2: How far do you agree with the Analysis of Chapter 2? Is there other evidence we should consider as to why digital inclusion is an important social issue?

Yes, but the order and emphasis seem to be not yet optimal. It seems unfortunate to start with the rather contentious claim on improved GCSE and A level performance (causality vs correlation) when there are much better arguments coming behind. The economic one is the one that currently seems to hold most sway for all generations.

Much more could be made of the use of technology to empower those with disability. It is surprising that it does not feature as an example. It is one of the most important areas – those with disabilities and who are digitally excluded are especially disadvantaged. In this regard the work of the JISC TechDis Service in the HE/FE community is outstanding and examples should be sought from TechDis and included[2]. In addition, it is important to include this aspect routinely in relevant government funded projects such as the ESRC/EPSRC funded Technology Enhanced Leaning Programme.

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[2] See http://www.TechDis.ac.uk for contacts and examples.

A related major area of social exclusion derives from inadequate English language skills. Another arises from Basic Skills problems. Technology facilitates getting round these problems. For instance, for recent immigrants etc., who are at risk of being excluded, including translations in a simple to use fashion is a cost effective, relatively easy thing to do. In some cases such as where the content is precise, legal and dense it may be necessary to pay for translations – but growing font and character set availability should allow display in many relevant languages. In less critical, informational cases, the inclusion by default on Government (and other) web sites of a "Google Translate" button would, at a stroke and at a trivial cost, enable reading of close to 30 languages including most of the minority ones spoken in the UK. In addition, some basic skills as well as disability related problems can be addressed in part by the use of audio, again possibly in translation, and with text to speech conversion in the translated language. As people in this area can often be socially and physically isolated, technology can sometimes be the only way in which they can interact with wider society, initially at least.

Little is said about the uses of easy access to information, advice and services. There are economic benefits in using technology when buying things to get the best price or conditions for music, entertainment etc. (the Web-enabled equivalent of avoiding the overpriced shop, the doorstep loan shark etc.). There are also the uses of technology to avoid fraud by having more information available. The benefits again do not just accrue to the individual citizen but change societal practice.

On the other hand, not enough is said in the Action Plan about the cost, financial, temporal and emotional, to the individual in becoming digitally included. There are jargon barriers, commitment barriers, the fear of being ridiculed, the need to understand the requirement, and above all the need to invest time and effort. As with English and number skills, individuals have often developed elaborate coping strategies to cover their lack of technology skills, and these need to be set aside. We return to this below as an understanding in this area, with sensitivity in support, is key to progress.

Questions 3 to 7 (Chapter3)

The analysis of direct benefits is an excellent one. We have three points to make that cut across these questions.

- The availability of good bandwidth and connectivity everywhere is vital for the future of the country. There are still significant areas where more work is needed, especially in rural areas. (Interestingly it is not always the more remote areas that have problems). This should not be a difficult problem to solve.

- It is usually a single individualised "killer app" that causes someone to make the effort to adopt technology. With some this could be the social networking possibilities, the need to find a job, or the need to access music. With others it may be driven by the need to overcome a specific disability. One view of the digitally disadvantaged is as those for whom the killer app is yet to be identified. While this is simplistic, more emphasis is needed on identifying possibilities, for sets of overrepresented citizens in the digitally excluded. One that we suggest above is translation services. Another that is made in the Action Plan is keeping in touch with carers. There will be others.

- More emphasis should be put on the need for simplicity. Fear is still a major inhibitor. It is not clear that clear instructions matter that much – support (whether human, or from the user interface) is more important at key moments.

Questions 8 and 9 (Chapter 4)

Again the analysis is a good one. The odd example is off target (e.g. it is hard to see page turning at the BL to access original sources as the killer app for many of the digitally excluded).

Question 10: Does the way in which services, particularly public services, are currently delivered adequately support individuals and groups who are socially disadvantaged? What more can be done to ensure they do?

If individuals and groups were adequately supported then they would not be socially disadvantaged. Accordingly the answer is no by definition.

Most government service literature for the potentially digitally excluded is transmissive and does not create major discussions on social networking sites (compare those things that interest the socially and digitally included such as student loans, rent legislation etc.).

A lot of government literature is still viewed as opaque, whether on line or otherwise. It is also complicated, but not always needlessly so. Thus the biggest improvements come from having in place tools and humans that explain things.

This can come from translation, FAQ systems that are effective and contextual and take account of disability, and especially from having empathetic humans to step in as required. This is however rarely cheap. In some environments such as prisons where overall costs are high in any case, such an approach can be economically sound and worthwhile.

It should also be recognised that most people whose job is to support those who are socially excluded work rather in isolation from one another, and that there is much parallel reinvention of the same wheel going on in different locations. Bringing practitioners from different geographical locations together to work in concert with one another can do a great deal to overcome isolation and to ensure that good practice is spread and embedded. An example of such an approach is that taken by the South Yorkshire e-Inclusion Projects[3].

Question 11: Are you aware of any other examples of good practice not yet mentioned in this chapter?

The Army achieves the highest success rates in the UK in *Learndirect* basic skills and elementary IT courses which are delivered over the internet through Army Learning Centres. Support is offered by empathetic civilians and access is free for all. A significant percentage of recruits come from socially disadvantaged and digitally excluded backgrounds. There is as yet no formal entry requirement into the Army for any technology or for Basic skills beyond entry level 2 English and Maths but higher levels and IT proficiency are increasingly required for consideration for promotion. Thus here the killer app is usually getting promoted and earning more money.

The Army claims that there are five factors that explain why they succeed in removing soldiers from the digitally disadvantaged

- L eadership – by example and by role models and champions

- I ntegration – of learning into the workplace

- V alue as perceived by the learner

- E thos – a can do culture

- S upport – from peers, institutional and form specific support people

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[3] Here small investments in a series of one year projects tested the use of technology to address social and educational exclusion using the "CAMEL method" developed in 2005-2006 by JISCinfoNet and ALT.

Success is claimed across the spectrum of entries including previously digitally disadvantaged overseas recruits such as Fijians and Ghurkhas where a further killer app can be communicating with home. Value and Support are the most important.

This is clearly a rather distinctive case but there are similarities with other environments such as the NHS and Prisons. The "community ownership" of the problem is also worthy of consideration.

Question 12: What aspects of previous or current digital initiatives and strategies have been most successful in tackling digital exclusion?

Unsurprisingly those that are human centred, strongly supported by tools and humans, based in familiar parts of life such as employment or leisure, and that identify and establish and then address perceived real problems for the individual.

Question 13/14/15: How best to proceed.

The lists of this chapter are very well argued and thought through. The key question is the role of government.

We believe that it is the role of government to ensure that there is ubiquitous high bandwidth and connectivity within its jurisdiction. This is analogous to a universal postal service and to the provision of utilities like water. This needs work to identify and ensure maintenance of the necessary standards. There is also a role for government in ensuring that pricing is appropriate so as not to deter the socially disadvantaged.

There is clearly a need to ensure that government follows good practice in its digital dealings with groups and citizens to make it easier for the disadvantaged to join in; hence our point that the single most cost effective thing that can be done is to mandate proper language facilities and disability support on government websites.

Government needs also to follow good practice with its own employees and those in its care or custody to provide work based opportunities that are exemplars.

There are lots of standardising areas where government can have a beneficial effect to ensure that it is easier for individuals to cross the bridge. The most widely known are those for websites to support people with an impairment but many other areas of standardisation can have significant effects. Traditionally government procurement is used to influence the industry as a whole.

The area that needs most addressing is that of the human support that is usually needed to help certain sets the disadvantaged. Good examples are ensuring that those who need to offer support are properly prepared and widely available in support of government services. This could include those working in libraries including mobile ones and in other public places, carers and other parts of the NHS, workplace colleagues, drop-in centre staff etc.

There is also a role for major charities being put in a position better to offer support in this area. Examples might include Help the Aged and the NSPCC as well as charities that work with other disadvantaged groups that have high percentages of digitally disadvantaged. Phone and email facilities have helped the work of the NSPCC considerably through Childline and otherwise.

The emphasis on the media in the chapter is well focussed and outlines another channel for getting the message over. Whereas the BBC was a fast adopters, interestingly some sporting venues were relatively late in embracing the Internet as compared with other ticket-selling activities. Penetration is now becoming universal and so perhaps more could be made of this area in the revised Action Plan.

But further work is also needed in helping to identify motivations for bridging the digital divide. Without identifying what it is that the individual wants to do that is so important to them that they will try, actions will not be successful.

An early piece of work should be to draw together a lot of existing cost and benefit work to make a proper "business case" for the UK to invest in digital inclusion. This needs to be supplemented by a number of exemplar individual business cases that will convince the individual. Finally a "social case" focussing on the social costs of digital exclusion needs to be drawn up.

Phones are becoming more universal and familiar and it may be that more success will result from pushes using mobile access to the internet rather than using traditional technology. To this extent, buying and placing dated machines in unappetising locations may at times be counterproductive, especially if not properly backed up by good human support.

In time, convergence may become important. The idea of switching things on and off in the home remotely using your phone and the internet (heating, security systems, ovens etc.) is but a small extension of doing the same remotely within the home and this can be very attractive to some people who are traditionally digitally excluded, such as those with mobility problems. The converse side of devices telling you (or other devices) when they need attention etc. may also be of future value. A good example is a house telling a carer when the fridge has not been opened in a given day.

The timing for deployment is not yet completely right as the cost will still be high; but gauging user reaction and developing interfaces is taking place now, so both aspects need to be tracked from a digital exclusion point of view as well as from the more traditional marketing angle. So much of the success will depend on getting the Human Interface aspects suitable for the wider population of users rather just for than the "techie" population.

Indeed the same is true of most new technology – consideration of its potential use in the fight against digital exclusion comes somewhat late in its evolution. Government can change that by legislation, codes of practice, research, and by setting an example. This is what is essentially proposed.

Question 16: How far do you agree with the proposed principles outlined in the Charter? Are there others we should consider?

The first one *by itself* would carry much more punch. It is a clear principle that will be capable of being understood easily. The second and third are worthy but their presence dilutes the message. They should be part of the unpacking at the next level down.

For instance, sustainability and the needs to monitor and evidence the risks and opportunities and consider the environmental impact are generic and the sort of things that should be standard in any government initiative rather than a top level item.

Question 17: How far do you support the actions which underpin the principles? Are there others we should consider? and Question 19: what should be the brief of the Digital Champion role?

The charter seems an excellent idea especially if it be focussed on a single simple understandable aim as suggested above.

An expert taskforce is essential as the agenda is likely to change with time to reach the same aim. It is important to have sufficient input from those with a thorough understanding of the human aspects of take-up of ideas and learning.

We believe that the ALT community, with its deep understanding of both learning and technology, is well placed to play a significant role in the taskforce, and more broadly.

It seems sensible to avoid the acronymically unfortunate "Digital Inclusion Champion" name and especially not to refer to the head thereof. Please think of another name at least.

A single champion with the tasks outlined may not work well. A figurehead person may have merit but would not then be capable of all the complex interworking proposed. Several roles seem conflated in the document.

There is the role of champion/role model for digitally disadvantaged people. The spectrum of constituencies is wide and a campaign, based rather more on the successful "gremlins" style of presentation, or media work based on a fictional character, human or otherwise (e.g. Gromit), may have more success. Role models for each digitally excluded community may be easier to identify.

Clearly there is a need to coordinate across government and this needs either good technology join-up within government (including local government as well as departments) or a team. Therefore, a team seems best initially. Traditionally, civil servants take such responsibility.

There is also a need for joining up with those parts of the initiative outside government and ensuring that monitoring and good process things are out in place.

A role for joining up in government may not be filled by the same person as an outward facing champion. Neither are the same as the public facing one(s). The outward facing person is needed but the role is essentially social and political. Indeed, there is a Minister for it and it seems appropriate for that role to continue. There are not for instance champions for Wales or for Education (once or thrice) that are distinct from the politicians that head the operations or the government. Ministers will obviously need to put in place the structures and support that they think appropriate to undertake their role effectively. This could include a single person responsible called a champion but the role needs to be more tightly defined.

The emphasis on a shared vision and driving it forward, taking the pilots into full deployment, taking appropriate technical and legal actions, and putting in place monitoring and feedback systems, is clearly correct.

Question 18: What issues need to be considered in determining a baseline measure for digital inclusion?

This is not a once and for ever definition. The definition implied in the document is as good as any initially.

Question 20: What would be the single most effective thing government could do to drive its digital inclusion agenda?

We have identified language and disability options on government websites above as a single thing that will affect at least one major community of digitally disadvantaged.

But in a sense the question is a trick one – the Action Plan argues forcibly and correctly for a concerted coordinated drive rather than single actions. We agree with that.

Question 21: Are there other issues you would like to raise?

The document does not pay enough attention to the European and International aspects of digital exclusion. Many solutions to our problems and pilots are to be found not in the UK but elsewhere (although they will need careful attention to make them work in a UK context). One of the roles of the expert group and its substructures should be to identify relevant research and development work an as well as deployment that is taking part in this area outside the UK that is suitable for transfer into a UK context.

We would also like to reiterate the needs for a proper overall business plan to be drawn up identifying government inputs as well as costs to others and benefits. This needs to be supplemented by carefully thought through "pitches" for different categories of the digitally disadvantaged.

Finally, we would like to stress the point that Digital Inclusion activities need to be permanent and sustained. Many previous government funded initiatives have not so been – such as the Communication Aids Project (CAP) – which was funded and then discontinued. Short term "special" digital inclusion projects and "fixes" only serve to reinforce differences and divides.

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This response was written by John Slater with support from Jane Seale, Nicola Whitton, Seb Schmoller, and Steve Ryan.

Annex

About ALT

ALT provides a focus for the expanding community of learning technology practitioners and researchers in further and higher education. At its heart are technical and academic staff who are seeking to support their students' learning through innovative uses of learning technology. ALT was formed 15 years ago, and is a registered charity.

ALT's aims are to:

- represent and support our members, and provide services for them;

- facilitate collaboration between practitioners, researchers, and policy makers;

- spread good practice in the use of learning technology;

- raise the profile of research in learning technology;

- support the professionalisation of learning technologists;

- contribute to the development of policy.

Members

Currently we have as members:

- over 500 individuals;

- nearly all of the UK's main higher education institutions;

- a significant number of further education providers;

- a growing corporate membership including bodies such as Becta, DIUS, LSC, HEFCE, SFC, and JISC, as well as large and small software, hardware, telecommunications, and e-learning businesses[4].

Activities

We produce:

- a quarterly Newsletter in web and print formats;

- the ALT Journal (an international peer-reviewed journal devoted to research and good practice in the use of learning technologies within tertiary education);

- a fortnightly members' email digest;

- publications aimed at practitioners, sometimes produced in conjunction with other organisations.

We organise:

- ALT-C, which is the UK's annual main academic conference for learning technologists, which attracts over 600 attendees[5];

- conferences on topics of interest to learning-technology practitioners, as well as occasional free events such as focus groups and regional meetings;

- visits and exchanges with sister bodies;

- regular workshops and symposia, for example on evaluation, peer-to-peer software, accessibility, and learning object design; and Policy Board meetings which bring together senior representatives from member organisations, to consider current significant developments in the learning technology domain.

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[4] Institutional and corporate members are listed on our website – http://www.alt.ac.uk/.

[5] The 2009 ALT conference *"In dreams begins responsibility"* **– choice, evidence, and change** will be in Manchester between 8 and 10 September, chaired by Professors Gilly Salmon and Tom Boyle

ALT's perspectives on learning technology

ALT understands learning technology as the systematic application of a body of knowledge to the design, implementation and evaluation of learning resources. The body of knowledge – the fruit of research and practice – is based on principles of good learning theory, instructional design and change management but is grounded in a good understanding of the underlying technologies and their capabilities. Learning technology makes use of a broad range of communication, information, and related technologies to support learning and provide learning resources. ALT believes that learning technology adds value to both the efficiency and the effectiveness of the learning process, by offering:

- opportunities to improve and expand on the scope and outreach of the learning opportunities they can offer students;

- ways to ensure equality of opportunity for all learners;

- alternative ways of enabling learners from cultural and social minorities, learners with disabilities, and learners with language and other difficulties to meet learning outcomes and demonstrate that they have been achieved;

- quality control and quality enhancement mechanisms;

- ubiquitous access opportunities for learners;

- enhanced opportunities for collaboration which may increase the re-usability of learning objects and resources.

However, the value that learning technology can add to the learning process is influenced by a number of important factors, including the following.

- The immaturity and volatility of some learning technology mean that there is a lot of work involved in keeping up with available products, especially with a market that is shaking out. Accordingly, much effort is wasted through poor understanding of the technology and its application.

- There are a lot of products and services which are not especially suited to UK FE and HE pedagogic models.

- It is possible to make expensive errors when there is a misalignment between technology, pedagogy and institutional infrastructure or culture. These errors are often repeated in parallel between educational institutions.

- Standards and specifications are evolving, hard to understand, easy to fall foul of, and tend to be embraced with zeal, without the cost and quality implications being properly understood.

- Much effort is also dissipated through a poor understanding of the theory and pedagogy that underpins the use of the technology.

- The absence of a widely established and practiced methodology by which rigorously to evaluate e-learning, and through which to develop the secure body of knowledge on which to build learning technology as a discipline.