THE HEART OF TEESDALE LANDSCAPE PARTNERSHIP

DIGITAL RESEARCH REPORT

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RESEARCH REPORT

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Heart of Teesdale Digital Strategy Research Report

Introduction

This research report, accompanying digital strategy and digital toolkit were commissioned by *The Heart of Teesdale Landscape Partnership,* 2011 in preparation for a stage 2 Heritage Lottery Fund Application.

In preparing the strategy, research has been undertaken in a variety of areas in order to establish the overall implications of using digital technology within a national context and takes the reader from published research to consultation with organisations in the region, consultation with other *Learning Partnerships,* analysis of relevant local and national projects, consultation with partners and potential partners, consultation with potential projects for this *Learning Partnership* and a training analysis.

The strategy aims to interpret the research investigating how digital technology may engage people in rural Teesdale, County Durham with their heritage and landscape. It was hoped that digital technology would interest individuals of all ages in the potential projects that the Partnership could deliver, the test being whether the technology would be feasible in the rural landscape.

Looking at the interests and skills in the region, the strategy aims to match these to the digital technologies that will hopefully work within the beautiful Teesdale landscape. With careful planning, some of Teesdale's hidden gems may soon be available to be discovered by audiences all over the world and a new pride and ownership will be felt by the people of Teesdale.

1.   Published Research

There is an increasing bank of national and international evidence looking into the way that learners are engaging with digital technology and some of the findings that may have an impact of the Heart of Teesdale Landscape Partnership project are outlined below.

In *The impact of digital technology - A review of the evidence of the impact of digital technologies on formal education* by Jean Underwood, November 2009[1] it was summarised that:

- *Digital skills are important to social and economic participation and the broader UK economy.*
- *The so-called hard evidence is supplemented by softer observational evidence, which has an important role in explaining why the positive outcomes have or have not accrued.*
- *The evidence tells us that integrated use of technology enables a range of positive outcomes for children and young people.*

Below, is one example of the identified improvements in learning for each Key Stage of school education based on Underwood's report:

Key Stage 1 (ages 5 – 7):

- *Improved progress for average and high attaining pupils in English*.

Key Stage 2 (ages 7 -11):

- *An average gain from ICT use was equivalent to 7.5 months' progress for some groups in science through effective use whiteboards.*

Secondary School (ages 11-16):

- *An average gain in GCSE science equivalent to 52,484 students moving from grade D to C. Improvements to the overall percentage of pupils 5+ A*-Cs at GCSE in the year after broadband introduction*.

The following wider outcomes were also identified within the summary:

- *Classes with online learning, whether completely online or blended, on average produce stronger learning outcomes than learning face-to-face alone.*

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[1] Underwood, J (2009*). The Impact of Digital Technology; a Review of the Evidence of the Impact of Digital Technologies on Formal Education*: Becta P.3.

- *Young people with a computer at home are less likely to play truant at ages 14 and 16 than those without computer access. For example, having access to a computer at home is associated with a 5.8% reduction in the likelihood of playing truant at age 16.*

The above results originate from findings within the UK and demonstrate the already measurable impact of digital technology on learning. *Becta* the UK government agency organisation responsible for the national drive to ensure the effective and innovative use of technology throughout learning was disbanded in March 2011 however they archived their thoughts on emerging technology as they saw it in 2008. The 10 methods in which they identified technology developing were:

1. Information Handling – New ways of handling, searching, analysing and presenting data. This may include Social Media and better ways of indexing information
2. 'Green' IT – Much of this emphasis is on reducing energy consumption and the implementation of new delivery models
3. New approaches to the delivery of IT – 'Cloud Computing' (hosting of files by a third party over the internet), 'Virtualisation' (virtual rather than actual version of something such as an operating system), 'Web 2.0' (Social Networking, Blogs etc), 'Serviced Orientated Architecture' (separates functions into units, which over a network can be reused in the production of new products)
4. Consumerisation of IT – use of mobiles etc as free and affordable devices, means of digital production and distribution
5. Emerging display and interface technologies – changing the way that technology is lit, how we interact with the technology such as movement sensors
6. Low-cost mobile computers – normally small notebooks with Wi-Fi that can enable schools to provide engagement with technology on a 1:1 basis
7. Increasing Mobility – smart phones, games consoles, notebooks etc moving towards wireless use through WiMax etc. Can be used in the classroom, museums or out in the field
8. Pervasive Computing – Ability to interact with real time data and objects and locations in the real world. This uses four methods: identification (e.g. RFID tags), location (e.g. GPS), sensing (e.g. sensor networks), and connectivity
9. Context Aware Computing – automatically deciding the way to present information such as landscape or portrait or automatically downloading content when a user reaches an identified point in a display for example.
10. Web 2.0 and Social Software – A platform that Young People like to engage on, it provides new tools and the opportunity for them take some control of their learning.

Since 2009, The New Media Consortium and EDUCAUSE[2] based in California, USA have produced an annual report called *The Horizon Report* which examines emerging

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[2] Johnson, L., Smith, R., Willis, H., Levine, A., and Haywood, K., (2011). *The 2011 Horizon Report.* Austin, Texas: The New Media Consortium.

technologies and how they expect to influence teaching, learning and creativity over the next 5 years. In 2010 an additional Museums version of this report was produced. The 2011 report produced in February 2011 from four months of research identified the following 6 emerging technologies as relevant for the future:

- Electronic Books – moving away from static books to those that are updated with social interaction. Applications for the *iPad,* in particular are leading the way in this more advanced functionality.
- Mobiles – As mobiles develop, these are increasingly become the place for acquiring information and the report identifies that are increasingly becoming the 'user's first choice for Internet access'.

The report identifies the above two technologies as those most likely to become reality within the next twelve months however consideration should be made to the fact that this is an American report and that some of the technology may take longer to become available in the UK. The following are thought to be technologies that are 2 -3 years away in development:

- Augmented Reality – An intuitive ways to layer information over a representation of the normal world. The *iPad* and *iPhone* have produced some interesting apps using this technology including multi layer maps e.g. *Yelp* but a search of *You Tube* show other ways in which this has been used e.g. *Lego*
- Game-Based Learning – Expanding into the realms of multiplayer online games and alternative reality. D-lab at Teesside University is already exploring alternative learning see section 3.2.2.

Within 4-5 years, the following new technologies have been identified as those that could impact on learning, these include:

- Gesture-based computing – Using the motions of the body to replace the use of the keyboard and mouse. An example of this is *Kinect* for Xbox 360°.
- Learning analytics – the process of joining a variety of data-gathering tools and analytic techniques to study engagement and performance. This has been likened to using Google Analytics. Although 4 -5 years away in significant terms, this is already being used at a basic level in classrooms with voting software on Interactive Whiteboards. In 2009 in County Durham, teachers were already considering how to use this to subtly analyse lessons.

To demonstrate the speed with which technology is moving on, it is probably worth comparing these six emerging technologies with those identified in the 2009 Horizon Report[3] which were: Mobiles, Cloud Computing, Geo-Everything (adding physical co-ordinates and associated data), The Personal Web (managing the way you use and view the internet with free tools), Semantic Aware Applications (new ways of finding content), Smart Objects (providing ordinary objects with the ability to recognise where they are and to

[3] Johnson, L. Levine, A., & Smith, R. (2009). *The 2009 Horizon Report.* Austin, Texas: The New Media Consortium

respond to this. Objects that carry information with them have been used for point-of-sale purchases, passport tracking, inventory management etc.

From the 2009 to 2011 *Horizon Report* only one of the technologies remain constant; the use of mobiles. This is perhaps due to the availability of these devices and their potential as they become more about advanced in the features that they can provide: Access to video recording and watching, audio devices, Access to the web, email, SMS and Social Media. 3 years ago, the technology was more directed to interaction with the Web but the 2011 report is much more about new technologies that people will want to engage with in the future.

Becta's predicted use of technology in the future identifies the processes by which digital learning will develop, caution needs to be considered as this is now 3 years old. It does however identify Social Media, Mobiles and mobile learning devices as being the way in which learning engagement will increasingly take place. The way that many of the other processes are described suggests that these are at the early stages and development of their potential although suggested, has not really been explored. It is useful to consider these when putting the Strategy for this project together however caution needs to be exercised to think how many of these will be well developed to assist in the project's delivery during the lifetime of the project.

2 Consultation with Organisations in the Region

There are a range of key organisations with expertise and experience in digital, emerging technology in the area. A sample of interviews were conducted with these organisations and a summary of their advice and guidance can be found below:

2.1 The Arts Council

Having spoken with The Arts Council, they outlined how they are currently looking at digital technology and went on to provide advice to the HoTLP based on the project's aims and objectives and the digital strategy survey:

What they are doing – They have produced a strategic document *Achieving Great Art for Everyone*[4] which sets out the Arts Council's strategy for the next 10 years. Goal 2 of this document is 'More people experience and are inspired by the arts'. Two of the ways in which the Arts Council will achieve this are:

- *we will support those artists and arts organisations presenting and promoting the arts in new and inspiring ways, including through the use of touring and digital technologies*
- *we will use our research and work with the media and other partners, including our funded organisations, to attract new audiences*

The Arts Council wish to see more people engaging with the Arts irrespective of their backgrounds and wish to provide more platforms to engage. A programme of seminars has been put together for arts organisations and is called *Building digital capacity for the arts.* These seminars begin in May 2011 and further information including notes from the launch event can be found here: http://www.artscouncil.org.uk/about-us/conferences-training/building-digital-capacity-arts/. Due to the Art Council's commitment to this programme, funding will become available for projects that are digital, transferrable and have a strong arts focus.

Internet TV (IPTV) is one of the areas that The Arts Council is going to be developing in conjunction with The BBC and C4 and is a crossover between *Freeview* and the internet. Quality content for this new platform will be required at a later date.

The Arts Council have produced research into how audiences engage online, *Digital Audiences: Engagement with Arts and Culture Online* (2010)[5]. This report highlighted that:

- *Social media has become a major tool for discovering as well as sharing information about arts and culture, second only to search through Google*
- *Making an organisation's website compatible with the major phones is advisable where the audience is Leading edge, as well as for future proofing an organisation's digital footprint*

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[4] Arts Council England (2010) *Achieving Great Art for Everyone*: Arts Council England P.30/31
[5] MTM London (2010) *Digital Audiences: Engagement with Arts and Culture Online:* The Arts Council, Arts and Business

- *Three main audience segments, five main categories of interaction. Key types of content that were regarded as high value by all segments included: online 'tasters' of offline arts, virtual tours, audience reviews / testimonials*
- *People currently use digital media primarily as a complement to, rather than a substitute for, the live experience*
- *Email marketing remains a key tool for our priority segments. Be realistic about what you can and can't charge for – there are relatively few (beyond ebooks and music) of people paying for online arts and cultural content and a low willingness to pay unless the experience offered is in high demand and not available through alternative means[6].*

This report broke down the users of the internet and digital technology into the following categories:

- *Leading edge (11%) - high ownership of latest technology, use internet as their primary platform for communication*
- *Confident core (29%) - Have good quality computer / internet set-up, that supports rich media experiences, many are daily social networkers, but less likely than the Leading edge to be openly sharing either arts and cultural content or opinions*
- *Not Interested in Arts and Culture (16%) - Poor technological capabilities (in terms of their technology ownership and platform use) and only conduct basic internet activities*
- *Late adopters (21%) - Lowest confidence using the internet and mobile phones, and feel left behind by new technology, use internet for information searching, emailing and some purchasing*
- *Low cost, offline arts and culture only (23%) - Late adopters of digital technology and have very basic internet use. Don't see capabilities in terms of culture[7]*

The report has many factual pieces of information that can be used influence the way in which digital technology is focused including social media and can found by visiting:
http://www.artscouncil.org.uk/media/uploads/doc/Digital_audiences_final.pdf

The Arts Council fed back on the questionnaire and potential areas that the partnership will be working with.

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[6] *Digital Audiences: Engagement with Arts and Culture Online* P.44-46
[7] *Digital Audiences: Engagement with Arts and Culture Online* P.40

2.2   Teesside University

A meeting with various staff at the University was arranged to respond to a presentation on the project. The University have ways of passing on their expert advice through a variety of schemes such as a Knowledge Transfer Partnership. Due to their expertise in digital technology and its development it was thought to be appropriate to talk to the University to understand the skills and experience that exist within the organisation and how these could potentially assist the HoTLP. Having spoken to the Account Manager for KTP, the following experience was invited to the table:

- Community Media and ICT
- 3D Animation (including computer gaming) and Post Production. Practice and research involve these technologies within a social and fine art context.
- Business engagement for the School of Art and Media. This has included developing groundbreaking courses such as Acting for Green Screen, accredited fashion photography and media training courses with industrial partners and formation of strong relationships with the likes of Apple and Endemol
- Interactive Learning Spaces and Immersive Innovation Districts
- Media and television production

It was later identified that GIS expertise also exists in the University if required.

At the initial discussion, the University suggested that they could support the project with the following skills: utilisation of a 3D Scanner to potentially digitise archives / landscapes / buildings – create 3D exhibitions; Motion Capture; Augmented Reality - utilisation within nature walks / viewpoints etc; digitising archives, use of Arduino http://www.arduino.cc/ Training for people involved in project delivery.

Teesside University has the skills and knowledge to support the project but would have to charge for services either as part of a KTP or on an as needed basis. Some courses already exist in areas such as oral history and participants can enrol on these for a fee.

2.3   Northern Grid for Learning

The Northern Grid for Learning work with schools in the North East to advise them on the development of technology. As an established organisation, the company has undertaken training for teachers and museum professionals to name but some. Having emailed their E Learning Officer, he made some suggestions of how technology is developing in North East schools:

- Portable devices
- NGFL are involved heavily with schools that are promoting and using handheld devices to enhance learning opportunities and improve standards.
- Also an increasing number of commercial content suppliers are providing access to their materials through iPod apps etc. 'GCSE pod' is a company NGFL have partnered with to pilot a study for producing revision apps for GCSE subjects.
- GCSE Pod http://www.northerngrid.org/index.php/component/content/article/40-news/778-developing-student-improvement-leaders

The links below show some of the work that NGFL have embarked upon in partnership with schools / LAs etc.

- Normanby Innovative Curriculum (Hand Held Devices)
  http://www.northerngrid.org/index.php/component/content/article/37-cs3/864-normanby-case-studies
- Hand Held learning Conference 2009
  http://www.northerngrid.org/index.php/component/content/article/40-news/558-handheld-learning-festival-conference-2009-ng-feedback

2.4   Regional Museums' Hub

As part of *Renaissance in the Regions* a team of 2 E-Officers were established in the Renaissance North East Museums Hub. These E-Officers provide advice on E-learning and E-collections to all museums in the North East and therefore have experience of working with collections and different museum environments. An interview was conducted with the two E-Officers which established that:

After 5 years in post experimenting with new technologies as they come out, the team feel that the required technology now exists. It is now time to experiment with getting the best from this.

From all the technology out there the Hub team feel that mobile technology (due to the fact that most people have one) and social networking sites with an emphasis on *Facebook* and *Flickr* are the most effective.

In terms of collections management the use of *Flickr* to catalogue images has been very effective, as an organisation, the Hub team have been able to explore *Flickr Commons* which encourages public interaction to discover more about photos.

The Hub team pointed out that DCMS were very keen tha*t* organisations removed themselves from copyright issues with images in the future, making large-scale images available to all and suggested that the Heart of Teesdale Learning Partnership (HoTLP) also considered this. (Referred to in the *Digital Britain Interim Report,* 2009)[8].

The Hub team stressed the importance of making people aware of what they were signing up to in terms of creating content. Without providing permission release forms at the start of the project and asking participants to give permission for work, it can be found that at the end of the project, participants refuse to sign these and the project cannot be used in exhibitions, display etc.

The Hub is currently launching REALM, a site aimed at teachers and pupils providing resources that can be used in and out of the classroom. HoTLP material could be considered for inclusion on this site as the project progresses.

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[8] MLA (2009). *Digital Britain Interim Report – Department for Business Enterprise and Regulatory Reform*

2.5   Barnard Castle Vision on WiMax and Mobile Phone Coverage
Some short consultation was conducted with *Barnard Castle Vision* who are overseeing the WiMax installation. This was undertaken in order to assess the implications for the use of this in relation to GPS devices in the locality. The discussion also raised questions regarding the mobile phone signal in the area, required for alternatives to broadband such as QR codes.

Having been made aware of the mobile phone signal issue by *The Vision,* mobile phone signal coverage websites were looked into further. Even when these sites stated that coverage should be good, at least one website mentioned that this is estimated coverage and that trees etc can interfere with this further.

Additionally it appears that 3G technologies are not available in Teesdale and to quote O_2 the difference between 2G and 3G signal is:

2G's fine if you want to use your mobile to:
- *Make a call Send a text Send a picture message*
- *Send or receive emails*
- *Browse the internet*
- *2G is marked on the map as voice, text and data*

Or, if you want to use your mobile to:
- *Browse the internet faster*
- *Stream music or video*
- *Send videos*
- *Try our 3G network, it's marked on the map as Mobile Internet[9]*

3.   Consultation with Learning Partnerships

A list of the Landscape Partnership Projects as it existed in December 2010 was consulted to discuss their experiences of digital technology. Additional partners not outlined here did respond to comment that they did not have such experiences but would like to know more about the Heart of Teesdale's findings. Some of the projects appear to have recently ended, resulting in emails bouncing back. The following feedback has been received:

- Digital Trail Guides have been a positive experience for the partner involved and provide access for all including those without Smart Phones.
http://www.nerochescheme.org/infoOnTheMove.php
- Need a hub to hand out technology
- One partner used Social Media and the web to try and get feedback from Young People. This showed an increase on normal interaction
- One responder suggested that they would like to see a standardised heritage App accessible in different partnerships
- CMS and the required resources to implement this were of interest to one respondent
- The Dalriada Project www.dalriadaproject.org has now finished but experimented with some of these technologies providing, 2 films, 2 podcasts, 6 touch screen hubs, and a website. A final report is available from the website.
Some of the trails can be downloaded here: http://heartofargyll.com/wp-content/uploads/2011/01/Discover_Dalriada.pdf and here:
http://heartofargyll.com/wp-content/uploads/2011/01/kilmartinGlen.pdf. The project is a great example of interaction of digital technology with the landscape
- The Shropshire Hills AONB have produced a website where you can build your own app and pay for this on the site visit: www.viewranger.com for further information

4   Analysis of Relevant Local and National Projects

Although we already have a fair amount of information on projects already taking place it is often useful to search for additional projects and sites to see if something quite different in composition could offer some insight and application to the project. The following sites have been identified in this way and each identifies a reason for its selection:

4.1   *Durham Miners Project* operated in Durham and Sunderland during 2003 and 2004 and engaged the community with researching the history of mining in the area. It has been referenced in this project due to its use of 'GIS', digitisation project and training of volunteers including online accredited courses which can still be accessed. The volunteers were empowered to take ownership of the project and the site reflects this. The project was overseen with DCC and therefore the knowledge about this project could still exist. The following is a link to the online learning page of the site and one of the units is about researching local history so could be of benefit to the HoTLP project: http://www.durham-miner.org.uk/miner/usp.nsf/pws/Durham+Miner+Project+-+Durham+Miner+Online+Learning

4.2   *Beamish Museum Collection Research* is an opportunity to search the Museum's collections and to add comments on images. On some sites there is little community interaction but on Beamish's site there seems to have been recent discussion, perhaps provided by the fact that this site is for logged in users who therefore have an investment in the site. Visit: http://www.beamish.org.uk/collections-search/

4.3   *Community History Projects – Steve Thompson* Although it has already been mentioned that Teesside University has the expertise to facilitate community projects using digital technology, it is also worth looking at the projects and sites that Steve has been involved with to see what may be appropriate to the HoTLP project. Steve's main site can be visited at http://steve-thompson.org.uk/ and links to his project 'The Digital Village Network'. The 'Skinningrove Way' within 'Skinningrove Digital Village' is an experimental site looking at the use of QR codes, video and projects and gives an indication of what can be achieved. The other digital villages all have different features, obviously designed to meet the individual needs of the community. Steve delivers social media training to deliver these types of sites.

4.4   *Yorkshire Dales National Park* website has a lot of the technology that people have mentioned that they would like to see in the HoTLP project site. The cultural heritage is woven into the landscape and linked to the local museum, opportunities to share the site with social media sites feature prominently (their own social media is separate), the home page has a link to an 'iPhone' App for the park which when followed displays a QR code to access the app. The site also states that other platforms will be available for app downloading soon (useful feature). The Park has produced audio trails, links to external webcams and virtual visits. The site has a log in for the projects that feature on the site and the local community also have a section. Visitor feedback is asked for on projects and detailed information is provided. E-postcards encourage visitors to send information about the site to family and friends. The one concern is that for visitors who are not so digital savvy, they need to download a map but without MP3 players, cannot gain instructions on where to go. Alternatively visitors can take the virtual tours which eventually take them to PDFs of walks.

4.5 *Durham Biodiversity Partnership* undertake an online audit every year and this could be a useful model to adopt for online surveys that the partnership may wish to look at: http://www.durhambiodiversity.org.uk/wildlifesurveys.htm Some results can be viewed, which encourages interaction

4.6 North *Pennines Peatscape Project* is a good example of how the North Pennines have incorporated different forms of media into a site to engage with the public which takes a different approach from other sections of the North Pennines website, although not intensely rich in media, there is just enough to give a different feel to the section. Visit: http://www.northpennines.org.uk/index.cfm?articleid=12218

4.7 *Pennine Prospects* is a slightly less 'tech-led' website that incorporates a member log in area, links to 'You Tube' feeds about the work in progress, downloadable PDFs and presentations which work well. Visit:
http://www.pennineprospects.co.uk/watershed-landscape

4.8 *Habitats and Hillforts* is a landscape partnership project that has used varying levels of digital technology to pull its project together. Audio Podcasts on the history of the area have been added at different times (produced by an outside company). One of the unique features on the site is a piece of commissioned film which is also artwork. Fed from a feed on 'You Tube', the film is a composition of four, time-lapsed films containing soundscapes:
http://www.cheshirewestandchester.gov.uk/microsites/habitats_and_hillforts/about/private_views_made_public.aspx The project has a strong community training and participation programme advertised on the site.

4.9 http://www.geoartcache.com/index.html is a website where Geocaching meets artists. In one recent event, three unique temporary art interventions were created in North Yorkshire Wolds by artists from 'Rednile projects' in collaboration with artist Katie May Shipley.

5   Consultation with Partners and Potential Partners

In this section we are looking at the projects that are already linked to the HoTLP in some way, identifying how they can offer advice and guidance that can help the realisation of the project's objectives. The following synopses are taken from a mixture of interview and questionnaire responses.

In the future it would be worth revisiting some potential partners whose projects are still in development. Such partners include English Heritage (York) and The Arts Team at DCC. The latter are currently involved in developing a QR Code trail for The Durham Brass Festival this year – Colin Robson with Durham City Arts. In the latter example Colin was approached by an artist who saw the potential in charging organisations for this service in the future so it will be worth charting its success in July.

5.1   *Culture Shock* has been included in this section due to its partnership with The Bowes Museum. *Culture Shock* would be able to produce a variety of training and access to a suite of Macs (need to be pre-booked) but would need to charge for such a service. Additionally *Culture Shock* can provide expertise in 'accessioning and storing digital born material into heritage/local history collections'. This project would be able to support heritage based projects through a partnership with the Museum and due to the skills acquired to deliver digital storytelling, provide a wide range of training and expertise that could assist the project. The project is on the verge of producing its evaluation report that took a different approach to assessing the effectiveness of the project, taking a joined up approach to planning and evaluating from conception.

5.2   *The Bewick Society* responded to the survey explaining that their contribution was an understanding of Thomas Bewick, and that they could provide assistance with this but that their IT support was too distant to be of benefit to this. Due to their understanding of producing a historical website however, they could be of assistance to the partnership in advising on how to compile historical information for the Web.

5.3   *Darlington and Teesdale Naturalists' Field Club* have an amazing enthusiasm for the HoTLP project and as partners would do all that they could to support this. They would be interested in learning new skills to support a project and may be good to train and use as champions. This group are also about to engage in supplying their records to *ERIC (*Environmental Records Information Centre North East) and by the time the project starts, may have the expertise to assist others in recording data.

5.4   *Radio Teesdale* have the expertise and volunteers to support the collection of audio files for the project and can make these downloadable from their website (within reason). Training can also be provided on interview techniques and how to capture and make audio more presentable. Radio Teesdale have already engaged in the production of some audio material that can be used outdoors and perhaps evaluation of this may assist the partnership in assessing what works. Radio Teesdale does have its own goals of public engagement and sees that the partnership could help it to achieve these by appearing as guests on the radio show, providing an update on where the project is. These can then be turned into downloadable files that can be used as project evidence.

5.5   *Beamish Museum* have experimented with digital technology in their open air museum and it was therefore useful to speak to them as their site is more equitable with the landscape of Teesdale. Working with Durham ITSS they found that:

- *Durham County Council used us as part of their work with their teacher IT advisors. They brought six children from ten different schools to answer questions which were set through hand held devices. Some questions used images, others words and yet others were sounds. Their work was then collated and prizes were given to the groups that got the most questions right.*

- *It was good because the answers were often needed to be given by costume demonstrators and this forced the children to interact. Sometimes the right answer was an image, or a recording or a short film*.

Unfortunately the advisor who conducted this research has now retired so details of the devices cannot be confirmed it is however suspected that these were Play Station Portable machines. In addition Beamish experimented with *OOKL.* Unfortunately in this case 'it needed to contact straight through to a computer and at Beamish it didn't we were out of range so it was useless'. What did surprise Beamish is that this research encouraged them to look again at *OOKL* again and they discovered that Beamish was still live with this site (The Bowes Museum is also live but never joined. With over 13,000 objects showing, a feed must be taken from elsewhere, perhaps *CultureGrid).*

6   Consultation with Potential Projects

An interview and questionnaire consultation with groups who have applied to become HoTLP projects was undertaken for this strategy. At the time of interviewing, the groups were unaware if their project was to be one of the selected and therefore it was thought appropriate to look at technology in a generalised manner rather than providing detailed analysis and potential disappointment in the future. A variety of the responses from groups are featured below:

6.1   *The Bowes Museum* has experience of using social media and a variety of programmes but is now lacking in capacity to mentor others. The Museum is interested in receiving additional social media, video conferencing and photo archive training and could offer some advice on collections data.

6.2   *Teesdale Marketing / Love Food* have the ability to learn the skills needed to deliver digital projects however the team are very stretched and therefore feel that the best way that they can engage with this process is if funding and time for a professional to do the work can be provided. The team do have ideas of how digital technology can be used with their project.

6.3   *Durham Victoria County History Trust* are interesting in receiving training that will allow them to digitise local records adding to the wealth that they already have online.

6.4   *Regeneration.* The regeneration project recognises the need to invigorate the local *economy:*
It would be good to see digital technologies used in such a way to create images and messages that raise the profile of the area, bringing skills development and greater access to local businesses and the community. Good also to recognise links to projects such as the Digital Dale broadband project

6.5   *Bowes Local History Group Restoration of St Farmin's well at Bowes* are all fairly computer literate and currently make presentations with computers. They'd like to experiment with new technology such as 3D but also want to know more about what this is. They have a lot of archive material that they'd want to make available – its currently talks and images on CD (these have a limited lifespan). They'd also like training to get their website for Bowes Village back up and running but it is outside the project scope.

6.6   *Darlington Mind* work with people with Mental Health issues and have the capacity to support their project participants in training and delivery of their HoTLP project.

6.7   *Teesdale Heritage Group* is involved in an oral history project to store images, research and information. The group would like to take this forward so that it becomes an exhibition of sounds, images and artefacts possibly leading to a CD and publication. The group have a variety of skills that they can offer to the project including digital skills and photography. In terms of new technology, they felt that a LIDAR survey of Teesdale would be interesting to show the archaeological features.

6.8   *Rights of Way* are interested in using online Mapping of the countryside to make the countryside available to the public. They feel that their staff would benefit from training in the use of portable devices. The department does have GPS survey equipment that could be used under supervision but don't have the capacity to supervise projects at present.

6.9 *The Tees River Trust* completed both a form and were interviewed. The group know what they want and need the trained volunteers to help them to deliver this. Interestingly from conducting an interview Ben was also able to suggest technology that would benefit other areas of the project such as a tried and tested way of adding web cams to the river.

6.10 *Countryside Development* have linked with the Wildlife Trust to look at video recording but are concerned with securing cameras so they aren't lost. The group had never really considered time-lapse photography before but could certainly be useful to show the reclamation of a former trackbed etc that could then be rolled out elsewhere once the skills are acquired. The group would also like to use speeded up video for people who can't access the trackbed. The group wish to be accessible in the future and would like to know about the technology to help them with this. The group have concerns around financial and physical restraints (in terms of accessibility on the web).

6.11 *Teesdale Through the Seasons* is a project suggested by Alan Fentiman who already has a good knowledge of where the project can progress through his involvement with the design of the website. Alan has a lot of skills in social media and filmmaking and would be prepared to support the project with these. Alan is also self-employed so will have time restrictions.

6.12 *Upper Teesdale Botany Group* wants to attract a new interest in Botany and have thought about producing a new leaflet to show the flowers of Teesdale. The group are interested in using technology but talking to Margaret on the phone highlighted how by working with someone their project could also be realised digitally (although some logistics would need to be worked through)

6.13 *Teesdale Stone Craft Academy* would really appreciate the knowledge and skills to ensure that stone craft is established in the region and that it can be enjoyed in the environment with trails on mobile devices. The Academy has a possible link with ArtisanCam who have provided a website showing Artists at work for schools for approximately 5 years.

7 Training Analysis

The interviews, questionnaires and online questionnaires have produced the following findings in relation to training needs:

7.1 *Online Questionnaire – 'SurveyMonkey'*. Only one questionnaire was returned in this way, the respondent was comfortable in video websites, Google maps and some social media. Although the site does not provide information on what the respondent needed training in the respondent did identify themselves to the evaluator and therefore it is known that they do not require further training for their project.

7.2 *Where Training has been Requested*
- Social media
- photo archiving
- Digitising images
- video conferencing
- Using video and photography
- Making websites more inclusive and projects accessible
- An introduction to new technologies and their implications
- Transferring CD and music files to the web
- Storing archives for the future
- Portable Devices / Mobile devices

7.3 *Additional Areas Where Training May be Beneficial*
- Skills sharing days (people have skills and contacts that can help others)
- Seminars on where technology may be developing over the next few years (no pressure but introduces concept of development)
- Creating project champions to enthuse people with technology / help with a community access area for the web

7.4   *Skills Available to Support and Deliver Training*

Area of Training	Potential Deliverer
Video Editing and Creation	Alan Fentiman Hub e-Officers
Survey Recording	Darlington and Teesdale Naturalist's Field Club ERIC Durham Biodiversity Partnership Durham Wildlife Trust
Web Cams	Glyn Howells (see Ben Lamb)
Increasing Digital Capacity	Arts Council http://www.artscouncil.org.uk/about-us/conferences-training/building-digital-capacity-arts/
Digital Storytelling (recording, scanning, editing)	*Culture Shock*
Creating a Community Website	Teesside University
Social Media	Alan Fentiman, Hub e-Officers, Teesside University
Blogging / Ning	Hub e-Officers
Oral History	Teesside University
Video conferencing	Northern Grid for Learning
Creating Audio Files	Radio Teesdale
Podcasting (extension of above)	Hub e-Officers
Audio interview techniques	Radio Teesdale
Using open source material / online tools	Teesside University, Hub e-Officers
How to accession digital material	*Culture Shock*
GIS	Teesside University
Introduction to new technologies such as 3D modelling, 3D Scanner Augmented Reality and use of Arduino, Apps	Teesside University
Mobile technology (GPS, QR tags, Apps)	Hub e-Officers
Photography	Eva Zandman (NeST)
Storing information in the correct format for the future / online image archiving	Hub e-Officers
Digitisation	*Culture Shock*, Hub e-Officers

8   Implications

8.1   Projects can be delivered by utilising the skills and knowledge available in the region

8.2   There is a network of professional services that can support the project

8.3   Project sharing and skills swapping may present new opportunities

8.4   Funding is necessary to seeing projects supported

8.5   Capacity is an issue for many organisations

8.6   There are differing levels of complexity associated with digital technology suggesting that different levels could be matched to different skills

8.7   Projects may need access to editing and recording equipment

8.8   Lots of work is potentially being produced, in order to manage this a place to showcase and share findings needs to be established

8.9   Social media and mobile technology have many applications to this project but also need managing to be effective

8.10   By using technologies that are not yet widely available, there is a risk of making these only accessible to the minorities with the equipment to access these

8.11   High end technology can be used but may have a 'limited' shelf life and its experimentation may not be successful

8.12   Everyone spoken to at the exhibition day, telephone interviews, interviews and via questionnaires saw the benefit of using some digital technology as long as this was accessible to all and supported by training. Access and training are therefore essential to the process of introducing digital technology

9   Bibliography

Arts Council England (2010) *Achieving Great Art for Everyone*: Arts Council England

Becta (2008). *Emerging Technologies:* The National Archives

Commercial Development Toolkit for Audio Visual Collections: SEMLAC (see toolkit for link)

Heather King. *Technology In Museums - Augmenting The Learning Experience* Centre for Informal Learning and Schools, King's College London

How to take great photos; A Renaissance guide to getting the most from your photographs MLA (see toolkit for link)

Johnson, L., Levine, A., & Smith, R. (2009). *The 2009 Horizon Report.* Austin, Texas: The New Media Consortium

Johnson, M (2011). *The Dalriada Project, Evaluation of Achievements 2007 – 2010* The Dalriada Project (http://www.dalriadaproject.org/images/stories/Website/dalriada%20project%20final%20evaluation%20report%20050411.pdf)

Johnson, L., Smith, R., Willis, H., Levine, A., and Haywood, K., (2011). *The 2011 Horizon Report.* Austin, Texas: The New Media Consortium

MLA, The National Archives (2010). *Archives for the 21st Century:* MLA, The National Archives

MLA (2009). *Digital Britain Interim Report – Department for Business Enterprise and Regulatory Reform*

Jim Richardson (2011). *Examples of museums using digital technology to be more social* Museums 3.0

MTM London (2010) *Digital Audiences: Engagement with Arts and Culture Online:* The Arts Council, Arts and Business

Underwood, J (2009*). The Impact of Digital Technology; A Review of the Evidence of the Impact of Digital Technologies on Formal Education*: Becta

10   Appendices

1.   Becta
2.   Arts Council Input
3.   Teesside University
   a)   KEI / KTP
   b)   KEI Stiller
   c)   Innovation Voucher
   d)   Information, Guidance and Advice flyer
   e)   Example of KTP expression of interest
   f)   Social media training
   g)   My Saltburn
   h)   The Skinningrove Way
4.   Responses from Partners in the region
5.   Project needs and skills
6.   Responses from Partners in the Region
7.   WiMax in Teesdale
8.   List of Organisations Approached for Consultation
9.   Brass Digital Music Trail
10.   a)   3 Coverage
   b)   Orange Coverage
   c)   Virgin Coverage
   d)   Vodafone Coverage
   e)   Tmobile Coverage

11.   OOKL Trial – The Museum of Hartlepool