

Bring your own heritage: final project report.

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Introduction

Public libraries have traditionally played a role in the acquisition and curation of local studies collections, and cultural heritage is recognised as core areas of activity for libraries to increase the numbers of patrons (Danish Agency for Libraries and Media, 2010). Developments in digital technologies present new opportunities for libraries to enhance this area of strength and expertise through, for example: crowdsourcing, gaming and laser scanning to engage greater numbers of people to both access and contribute to these collections (Laing and Scott, 2011; Nicholson, 2013; Czarnecki, 2010). Libraries are increasingly becoming spaces where knowledge is created and shared and many are making use of collaborative and social technologies to encourage this (Paulus, 2011). Our project was conducted in partnership with Moray Council in Elgin in the Northeast of Scotland which has a rich history dating back to the 12th century but, like many areas, is facing challenges and the library service in the local authority area of Moray has been threatened with cuts with four local branches earmarked for closure (BBC, 2013).

The main aim of this research was to investigate the opportunities and challenges for libraries to develop their role as facilitators of community heritage curation through the development of IT Utilities, such as laser scanning and gaming.

Initial Research and Technical Details of Scanner

Prior to the commencement of this project the School of Computing Science and Digital Media at RGU purchased a Leica C10 laser scanner (Leica Geosystems 2015a) which was made available for our use. The scanner offers the ability to record the point cloud and take photographs that the supplied Cyclone software (Leica Geosystems 2015b) can incorporate into the visualisations that it creates. For some purposes the basic point cloud is a more suitable medium, in particular for import and processing in other software, but the majority of the visualisations illustrating this report have used photographs to enhance the image.

A series of telephone interviews were conducted with twelve people with an interest in the heritage sector in Elgin, the Moray area, and the wider Highland region. The aim of these interviews was to discover what benefits participants thought could be brought to the heritage scene by the use of 3D visualisations and other technology applications, and what aspects of the local heritage might be particularly suitable for such treatment. We also investigated how visualisations might be accessed and who the audiences for them would be- see Appendix 1 for a summary of the interviews. As part of the process we undertook an exercise to map the relationship between organisations active in heritage in and around Elgin against the programmes in which heritage is a significant factor. A visual representation is available in Appendix 2. Further, In order to understand the ways in which users interact with technology in a library environment a literature review was undertaken to create a typology of IT use. Two key documents in guiding the typology were a report created as part of the Pew

Research Center's Internet & American Life Project (Zickuhr, Rainey and Purcell 2013) and the third biennial study by the Library Research Service into the use of internet technologies on US library websites (Wanucha and Hofschire 2013). While these reports are focused on the status of libraries in the United States many of the lessons can be applied more widely.

The resultant typology consisted of seven main categories, each of which contained a number of ways in which the interaction occurs:

- user interfaces to Library Management Systems (catalogue search)
- gaming (novel uses of gaming engines)
- communications (assistive technology for disabled users)
- education and learning (Virtual Learning Environments)
- hardware and software (technology petting zoo)
- access to information (government portals)
- user interaction (creation and upload of digital content)

User engagement events

A number of user engagement events were held during the course of the project which were developed in collaboration with the partner organisation.

- A community laser scanning workshop was organised. Members of the public were invited to the library where there was a talk from a local history expert on the history and heritage of the area. Following this, the group went to the Little Cross area for a demonstration of the scanner and a medium definition scan was taken from one location while Professor Laing explained the process. Afterwards, participants were taken back to the library where the scan data was processed and initial visualisations were presented.
- In the second event the scan data was combined with other scans of the area to create a 3D townscape of Elgin High Street. Users were invited to individual sessions with the researchers where they navigated the scans, gave feedback about usability and additional functionality that they thought would enhance the experience and were also asked to draw attention to areas that they found particularly interesting. Several participants also brought along artefacts such as photos and newspapers showing interesting historical events or individuals.
- In the final event there was a walking tour of key areas of community heritage (organised by the partners in Moray Council and the Castle to Cathedral to Cashmere group) followed by a demonstration of the final project output which was a more interactive 3D environment called 'Elgin Viewer' developed in Potree where areas of interest were marked and users were provided with additional information and photographs of these sites when they approached a marker in the model.

Further details of the user engagement events can be found in Appendix 3.

Practitioner Workshop

In February 2015 a practitioner workshop was held at the AK Bell Library in Perth. The audience for this was library and information professionals, primarily recruited through an email circulated to its members by the Chartered Institute of Information and Library Professionals in Scotland (CILIPS). We had budgeted for an attendance of around 25-30 but in fact had requests for places from over 40 people, and had to decline places to a small number due to the size limitations of the room. Participants came from throughout the sector in Scotland, primarily public, school, academic and National libraries, but also museums and heritage organisations. The workshop format consisted of a mixture of presentations and breakout sessions.



There were five presentations: Professor Laing updated his previous presentation to include more about the results from Bring Your Own Heritage; Dr David Beel from Aberdeen University shared his experience of the CURIOS project (Community history and digital archives in the Outer Hebrides); Liz McGettigen of SOLUS spoke about Digital stories: the past in a digital present; Alistair Campbell, formerly Libraries & Museums Manager at The Moray Council described the Castle to Cathedral to Cashmere project which will draw on the learnings from BYOH; and Clare Padgett from Edinburgh Libraries gave a short presentation about their Edinburgh Collected project and website (<https://edinburghcollected.org/>).

Two breakout sessions were held and both sessions provoked lively discussion, with all attendees taking the opportunity to raise questions and share their views with fellow practitioners. A summary of these sessions can be found in Appendix 4.

Further Dissemination

Dr Tait was an invited speaker at the CILIPS Conference in Dundee in June 2015.

Dr Tait presented a paper at the Information: Interactions and Impact (i3) Conference at RGU from 23-26 June 2015.

Dr Tait and Andy Grinnall presented results from the project at the ITaaU Conference in Southampton in July 2015.

Dr Tait and Professor Richard Laing have been invited to present a demonstration of the laser scanning and visualisation techniques at a workshop on the 15th of August 2015 held at the James Hutton Institute.

The project team have received a number of other invitations to present and the project has attracted a good level of interest from academic and non-academic audiences.

A publications strategy has been developed and it is anticipated that at least three journal papers will be produced by the end of September. These include:

- A journal paper from Dr Tait's i3 conference paper which will be submitted to a special issue of the Journal of Information Science
- A paper based on the technical workflow and challenges of rendering large 3D point clouds will be submitted to a journal of Built Environment
- A paper based on the findings from the interviews and analysis of the strategic approach for libraries and local authorities will be submitted to a library journal

Continuation and future funding

Although the Bring Your Own Heritage project has come to an end our work in Elgin will continue. We were invited to join the 'Castle to Cathedral to Cashmere' (C2C2C) project which is a large multi-stakeholder project led by Moray Council. We were part of the successful application to the Heritage Lottery Fund where the C2C2C project was awarded £78000 and a further £300000 was raised from other sources. We will conduct further laser scanning and visualisations in Unity 3D (Unity, 2015) of a series of locally significant heritage sites and will work closely with private sector contractors on historical interpretation and web development. The final outputs will be developed together with additional user engagement events such as hackathons at local schools and historical events. These will include a website, mobile technology, 3D interactive models and interpretations at more than 25 sites.

We have also made a start of developing a network of people with an interest in the area of laser scanning and gaming including several other members of the IT as a Utility Network and the Communities and Culture Network. A useful next step would be to hold a series of workshops to share experiences and ideas and develop solutions to some of the technical challenges. We will seek funding from one of the funding councils' network grants (either AHRC or EPSRC) and will work with ITaaU to facilitate these.

Training and knowledge exchange emerged as a key issue for libraries and the project team are evaluating options for the development of a community of practice in collaboration with the professional body CILIP to facilitate this.

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Appendix 1: Summary of interviews for Bring Your Own Heritage.

Methodology

A series of 12 interviews were conducted by telephone in November 2014. The interviews were with a diverse range of local stakeholders including: local and regional economic development institutions, local heritage groups, representatives from the business community and the library. These were recorded and transcribed before analysis and a summary of findings is presented thematically below.

Strategy

Interviewees were asked about the value of cultural heritage to the area and the local strategies and initiatives that were being undertaken. Respondents were very positive about the history and heritage of the area drawing attention to the links with Macbeth and other historically significant events. A very diverse range of interests and projects were discussed including: the unique built heritage, the cashmere and whisky industries and sporting events. It was noted, however, that Elgin had challenges related to its geographical location and the fact that heritage sites tend to be dispersed rather than in a clear 'trail'. Further, some noted that in the past there had been a lack of a 'joined up' approach to cultural heritage strategy with some groups operating in isolation which was being resolved by a more holistic strategy for heritage. Tourism became a strategic priority for the area following the announcement of the closure of an RAF base and it was recognized that a more co-ordinated approach would be required.

... from the Moray Economic Strategy and our work on that we would be keen to see quality heritage and cultural development in the area. And particularly those which will make use of the super-fast broadband which is now in Elgin and most of Moray (interview 2)

Respondents also drew attention to the wider benefits of engagement with local history and heritage citing benefits of: community development, development of the arts, engagement of younger people and others.

Many of the interviewees were involved in the Castle to Cathedral to Cashmere initiative which, at the time of the interviews, was still securing funding. Respondents were candid that the diverse range of stakeholders meant that the scope and remit of the project took a long time to be agreed and that there were differing views on what constituted heritage and how this should best be portrayed. For example, one respondent discussed striking a balance between focusing on 'grand families' of the area or whether the heritage activities should be focused on the lives of more 'ordinary people' of the area. However, by the time of the interviews these issues had been resolved and respondents agreed that the partnership approach was vital to the success of the project. The Castle to Cathedral to Cashmere project has now secured

funding and will see a range of activities including funding to improve the physical heritage sites and signposting as well as public engagement activities, heritage interpretation and the use of digital technologies. One respondent commented about the importance of developing a heritage narrative for the area:

We've got a very fragmented tourism offer and as part of that we've got a very fragmented heritage offer. In some ways the way that we organise ourselves compounds that... So we can end up operating in silos. And one of the big plusses of the whole storytelling genre and translated storytelling in particular is that ability to link stories and to link places and to link back to that theme, linking people with places, and doing it through a compelling heritage story told in a medium that really engages people. (Interview 3)

Library Role

The role of the library within the range of heritage activities in the area was also discussed. It was found that the library had a range of collections and had recently appointed an archives and records management. It was also discovered that the tourism information point was currently located in the library but there were some concerns raised by respondents that additional facilities should be located on the High Street. It was reported that there was good footfall in the library and that it was a useful way of engaging local people as well as external visitors with the heritage of the area. As with many other public libraries in the UK, interviewees noted that the library faced challenges such as a lack of equipment, resources and finances and were dependent on external funding and working in partnership with other organisations. Further issues such as staffing were identified and it was recognized that initiatives may require the support of volunteers to be successful. Skills and training of staff were also identified as potential issues but one interviewee drew attention to the fact that the library already had many resources and skills in place:

We are looking at children's information skills, and one of the hooks we use is about family tree, it's about heritage, it's about the whole area, it's about community, and it's about a sense of place. So we very much see it as one package. Using local knowledge, memories, using artefacts and resources, and involving our museums colleagues too... All library staff should be able to support people with basic heritage because all of our libraries have small collections of local heritage materials. They all have access to systems like Lib Index. (interview 10)

The library was viewed as a space where heritage collections were stored but also as a venue for bringing groups together to engage with each other on areas of mutual interest.

Digital Technologies

The final theme that will be discussed is the responses of interviewees regarding digital technologies for cultural heritage. Respondents were very knowledgeable about technical developments in the area and many gave examples that they had seen on television, interesting exhibitions that they had seen while travelling to other places and initiatives that they had been involved in themselves. They were particularly optimistic about the potential for digital technologies to enhance the tourism experience of the area both by encouraging people to come to the area with online exhibits and promotional activities, and also by using technologies in interactive exhibits and digital tourism trails which could provide visitors with additional information on areas of local significance. Laser scanning and visualization were discussed by some of the interviewees. The value of these technologies, as discussed by the interviewees, was viewed as being the ability not to simply capture the sites but to enable people to engage more fully with the story and signpost them to places of interest:

my impression is it doesn't just capture a moment in time, it captures a series of moments through time and brings them alive in a literally three-dimensional way so that one could look at presenting the story and encouraging research or an inquiring mind in a more dynamic way into the past. (Interview 1)

Some interviewees reported that digital technologies could be particularly effective for engaging young people and had ideas of using augmented and virtual reality to show how areas were in the past.

I think the problem with heritage and history is how do you bring it alive? How do you make it interesting? How do you make it something that's moving? Because to a lot of people, particularly younger people, "fine, that's an old building, okay." Our job, your job and other people's, how do you then use technology that would then bring that building or the story that goes with the building alive? And that's where your technology can play a great part in that because with the 3-D images and suchlike you then can start taking bits away, you can introduce some other imagery and you can introduce background voiceovers, you can bring in music and so on. And it's just fantastic that what you do can be used to bring heritage and history alive, because that is, frankly, utterly key. (interview 5)

One interviewee also indicated that interactive 3D models could also point visitors to local shops and businesses:

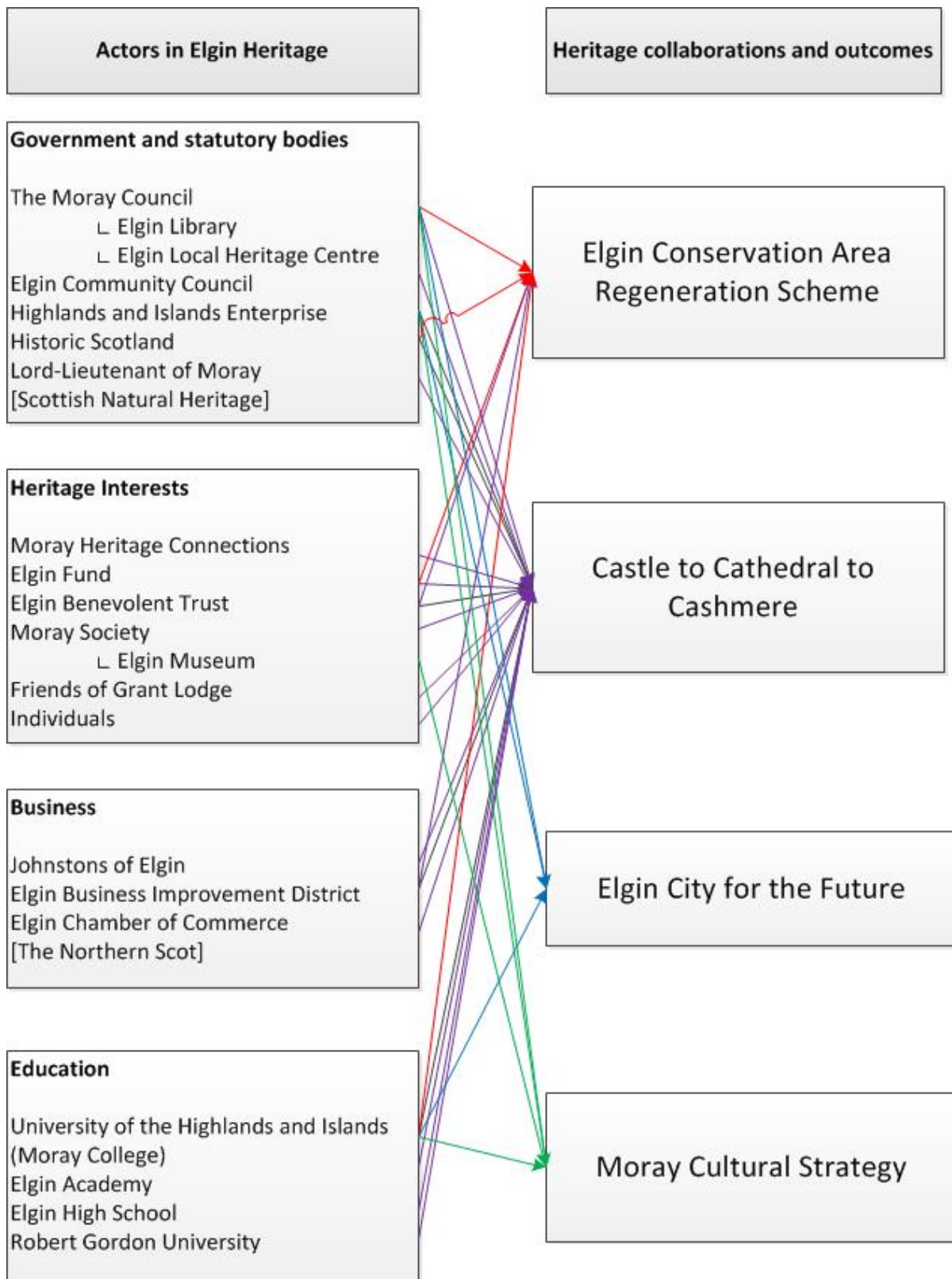
You could have somebody looking at a historical document or information on an iPad or a smartphone and at the same time they might get a link to “oh, you must go shopping to WH Smiths” or “got to Café Cross for your coffee” or something. So there’s ways of linking things up there and linking it into transport. You can have all that through your digital applications. It’s not just about “here is the tourist information, enjoy history.” It’s about how you plan your whole your day and transport and going back to your accommodation, you can do a lot of that stuff electronically. (interview 11)

Respondents were, however, also aware of the limitations and potential challenges of technologies. For example, the restrictions and pressures on the local authorities’ IT departments was raised as a challenge whereby the strict rules on IT policies and procurement mean that there can be lengthy delays. The fact that many projects area also dependent on project funding means that there are challenges of the sustainability of initiatives.

I think the biggest problem is really trying to future-proof it. And that’s in the way that in years down the road you can actually still have access, use what there is. There’s always that big question mark in the public sector with more and more constraints where we still have the staff resources around also to maintain and update any of the information (interview 8)

Interviewees also recognized that technologies change and develop very rapidly and that not all people area familiar with digital technologies or may not have smartphones and therefore digital and online resources would have to be combined with alternatives for an inclusive approach.

Appendix 2: Elgin Heritage Map



Appendix 3: Details of User Engagement Events

A number of user engagement events were held during the course of the project which were developed in collaboration with the partner organisation. The first of these incorporated the public scanning demonstration. Attendees were recruited through a variety of channels: project members joined Facebook groups in Elgin, particularly Elgin Past and Present which has a heritage focus; a Facebook Event page was created to enable people to register to attend; Elgin library circulated the event’s publicity poster to a number of local organisations and we directly contacted a number of heritage organisations to invite them to attend. In order to make local expertise a part of the day we arranged for a local historian and author, Andrew Wright, to give a presentation about the scan area at Little Cross (located at the East end of Elgin High Street) and then around 20 people came to Little Cross to view the demonstration. Professor Laing described how the scanner works while running a scan of the area, and responded to the questions raised by the audience (see Figure 2). A high definition scan was selected along with photographic images of the same area. A question and answer session followed with the audience showing a keen interest in both local heritage and the ways in which scanning could be used to showcase it.



Figure 1: Professor Laing demonstrating the C10 Scanner



Figure 3: Visualisation from Laser Scan of Little Cross

On our return to the library the scan data was unloaded from the scanner and imported into Cyclone and Professor Laing presented the visualisations to the audience so the results could be shown (see Figure 3)

In early January 2015 Professor Laing and Andy Grinnall returned to Elgin with the aim of scanning as much of the length of the High Street (see Figure 4) as possible given the short amount of daylight available and the possibility of inclement weather.



Figure 4: Map of Elgin High Street.

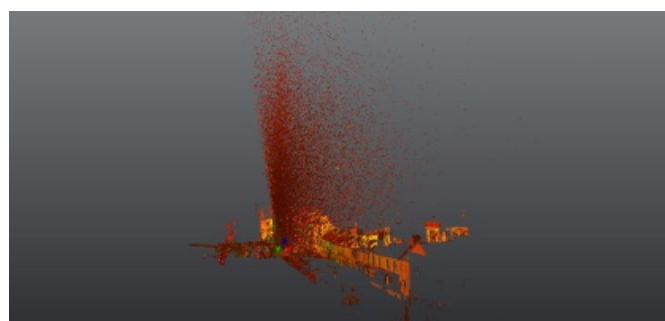


Figure 5: Point Cloud Data showing Snow

Starting at Little Cross we were able to perform 8 scans, getting as far as St Giles Church in the pedestrianised section of the High Street. Fortunately the C10 continued to perform well despite precipitation, although the snow did result in some interesting point cloud data (Figure 5).

On our return to Aberdeen Professor Laing used the Registration function in the Cyclone software to join together the scans to create a single continuous point cloud image of the whole of the High Street (see Figure 6). The number of points in this image is in excess of 100 million, and the file size is several gigabytes. These numbers were a significant issue in the planned follow up activities.



Figure 6: Elevation view of Elgin High street scan

In order to meet the need to return to Elgin to undertake testing of visualisations with members of the public it was decided to investigate it was decided to use Leica TruView process for viewing HTML visualisations. This requires the point cloud to be processed by the Cyclone PUBLISHER module, which converts the data into HTML format for web viewing through the free TruView panoramic point cloud viewer (Leica Geosystems 2015c). A representative from Leica showed us a demonstration of a fly through solution that would offer participants a much more interactive experience. This solution is not yet available to Leica customers but they offered to take our data to their labs in the USA and process it to give us a fly through of Elgin High Street. Although it required the postponement of the next planned event at Elgin library by three weeks it was felt that it was worth the delay in order to show a better result. We therefore took up Leica on their offer, and two weeks later the fly through was returned to us.

While it is currently a standalone executable it is expected that it will be incorporated into the next release of the Cyclone software. There is no option to add material to the file at the moment but this may be a feature once a production version is available. For our purposes it contains two main views: a plan view, and the fly through itself. The plan view (see Figure 7) shows a top down view of the visualisation, with the locations at which scans were made marked by yellow triangles. These can be double clicked to take the viewer into the 3D visualisation at that point.



Figure 7: Scan sites in Plan View

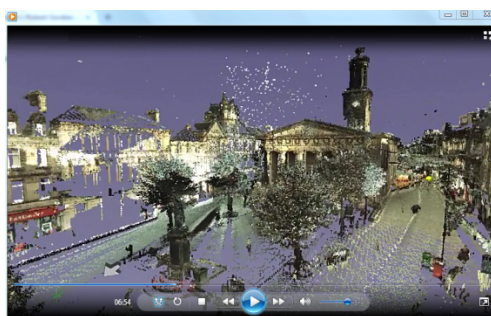


Figure 8: Screenshot from Flythrough

Once in the 3D visualisation view clicking on Fly allows the viewer to control movement using a mouse. Forward movement is controlled by holding down the left mouse button, with horizontal and vertical motion initiated by positioning the cursor on the screen. Speed of movement may be altered from the standard speed setting. Figure 8 shows a screen grab of the High Street in front of St Giles Church from an elevated position.

A second event at Elgin Library was held in March 2015. Camtasia was used to make a recording of the activity on the screen of the project laptop along with the discussion between the researchers and the participant. Each person was given a brief demonstration of how to control the fly through then they were asked to use it in whatever way they liked. The degree of comfort with using the mouse to interact with the visualisation varied from person to person, with some quickly becoming adept (particularly one who was already familiar with gaming) while others remained rather tentative throughout the process. Even so, all were able to navigate their way along the High Street and switch between different scanning points, sometimes with a little assistance from the researchers.

Several key points were revealed by the actions and comments of the participants. First, they were all impressed by the way that it worked and the range of views that it gave them. Second was that most of the participants felt that the preponderance of signs indicating business properties for sale and to let gave a poor impression of Elgin, and several commented that the signs seemed more prominent in the visualisation than in real life. Thirdly, each person found something in the fly through that was of particular interest to them, such as historic dates stones, a milestone marking the centre of Elgin, and for one person the Christmas lights (he is involved in having them replaced this year, hence his interest).

The invitation had requested that if people had in their possession items that could be digitised and incorporated into the visualisation to provide additional context then they could bring them along to see what could be done with them. We would expect this to eventually include photographs, video and audio, and links to digital artefacts hosted on other sites. Several people brought items on the day: one had an album of historic postcards which included several views of buildings in Elgin that no longer exist, such as the town hall that was demolished in 1939 (see Figure 10); and one brought a display of characters from the town's past and a series of prints showing the 1500 year

history of the Laich of Moray, once a sea loch to the north of Elgin providing a thriving medieval harbour that silted up and was drained in order to provide agricultural land.



Figure 9: Andy and a participant in Elgin Library



Figure 10: Artefact from User

While these activities were being developed we attempted to overcome the challenges of importing large point clouds into the game engine. Dr John Isaacs joined the team who began testing out the workflow on some laser scans of statues that had been taken as part of our participation in a local festival called 'Look Again' where prominent landmarks were showcased in new ways including by dressing the statues in knitted outfits and in 3D visualisations (see figures 11 and 12).



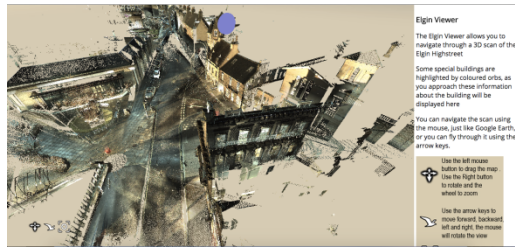
Figure 11: statue rendered in Unity 3D



Figure 12: Statue with knitted outfit

Unfortunately due to the size of our scan files and the level of 'noise' in the scans from reflections, people, snow etc it was not possible to scale the workflow up to the large area scans. It should be borne in mind that we were using freely available 3D rendering and visualisation software and there may be commercial products that would have been effective but we did not have the budget for these. Despite many different attempted solutions it was found that rendering the full scan and importing it into Unity was not going to produce a high enough quality visualisation and so an alternative plan of developing an interactive point cloud viewer with additional options for users to find out about information was developed using Potree which is a free point cloud viewer.

The final user engagement event was held in May 2015. In this event around 15 participants were taken on a walking tour of Elgin City Centre where key local sites of historical interest were identified and then the project team gave a demonstration and discussion of the Elgin Viewer.



L-R Figure 13: Jim Royan pointing out areas of historical significance in the walking tour, Figure 14: Screenshot of Elgin Viewer, Figure 15: Final workshop at Moray Council

Appendix 4: Summary of issues raised in the Practitioner Workshop

Morning session

In the first session participants were asked to discuss what their organisations are doing now and what they would like to do in the future, with any issues and barriers that they face being a particular focus. The longer established school libraries have their own heritage collections. For instance, Madras College, founded 1833, have school magazines, photographs, war recollections, and items of national interest such as a diary held by the NLS. NLS have digitised 100,000 maps over the last 15 years, and there is now an increasing use of these as base layers for other mapping services by third parties. Digital maps allow people to see what they are buying before ordering, where previously they had to visit the library to be certain that a map covered the area that they wanted to see, or run the risk of it not being the right one. Examples from local authorities included North Ayrshire who have digitised many photographs and uploaded them to Flickr (<https://www.flickr.com/people/nayesterday/>) but they have kept local copies in case of future access issues to Flickr. The site has had 2 million hits and they are working with heritage organisations and community groups to form connections. Rutherglen have scanned many items but due to lack of funding have been only been able to do limited distribution.

There was a mixed response to a question about whether library services offer customers opportunities to learn about technology, e.g. scanning photos, with some doing this and others not. An example is Edinburgh's War, run jointly by Edinburgh Uni and Edinburgh City Libraries (although it seems to be officially named Scotland's War <http://www.scotlandswar.ed.ac.uk/>).

Potential legal issues such as copyright were discussed. The biggest copyright issue (also raised in the afternoon session) was the identification of copyright holders for items in a middle range of age – if it's more than 150 years ago it's pretty safe to assume it's in the public domain, if it's in the last 70 years then it's definitely not in the public domain, but in the middle ground it can be difficult or impossible to know.

West Dunbartonshire noted that local themes were prevalent in archives, for example on Clydeside these include shipbuilding, sewing machines (Singer factory) and the Clyde blitz. One issue is that people from outside the area may ask for information about areas that may include Dunbarton in the name but are not part of the LA area. This led on to a wider discussion of the issues caused by local government reorganisations, Renfrew advised that many items that should be in their collection are currently held in Glasgow, the effect of this is that items are unavailable to people who wish to see them. Digitisation could be a way to partially resolve this with digital copies made available through multiple LAs even though the original is held by one.

Afternoon sessions

The second session concentrated on how to take things forward, who to collaborate with, how policy can be influenced, what mechanisms for change exist or should be created and how sharing can be achieved through open access. Many participants reported difficulties in dealing with IT departments with many of them simply having an attitude of refusing to accept a request until forced to do so – see below about business cases.

Comments were made about the advanced nature of some of the technologies presented, for example animations and links to games. Many felt that what they saw in their libraries was much more limited, it was unclear whether this was due to poor connectivity in some of the more rural libraries or that the app was a US version different to the UK one. Users had to use their own phone or tablet, this was felt to be a barrier, and the possibility of offering the use of library iPads in the future was discussed. Some felt that some of the technology options were really not feasible for the short term and could only be considered in long term plans. There was also a point raised that technologies should have a clear purpose and a strategic approach needed to be taken.

A suggestion was made that there could be an online group for librarians to share experiences of what works, what pitfalls have been encountered and how to avoid them, and information on funding options. This led to a discussion of funding stream, such as national funding (e.g. Heritage Lottery), local bequests, and trusts. It was pointed out that LAs may be unable to apply for funds from trusts, but that by collaborating with external groups then the project itself may be able to apply for funds. A project may be able to search for multiple funding streams for different aspects of the project. Some participants noted that they had little experience of making funding bids and would like people with more experience to share their skills.

Collaboration can bring mixed results, with some groups more ready to offer assistance than others – it was noted that this can be the case even within the same LA. Providing a good business case is often the key to getting full engagement, and as above with funding some people have greater skills in this area than others. The business case may not need to be a financial one, in many cases the outcomes are the important thing.

Some people felt that there is too much emphasis in Scotland and the UK on top down development at the expense of what grass roots groups would like to see. Are there good examples of bottom up development that could be used?

Some library services see much greater use of online heritage services than they do people coming to libraries to use it. There was some discussion on whether an online visit counts as much as an in person one, it seemed like in theory it should but some people felt that in their services online was seen as secondary to footfall. Shelia advised that footfall to view heritage collection items was decreasing but that event participation was increasing.

Some services are using heritage as a money maker by charging for value added services. Moray have an online shop that charges for making searches. Some libraries claim that they have difficulties taking payments as they are not properly connected to the payment engines used by other parts of the LA. It was felt that development of payment functions had been piecemeal unless specifically funded (e.g. Council Tax payments are handled the same way across the country as government funded development).

As in the morning, copyright of medium age items is an issue. Some libraries are taking the decision to publish items with unclear copyright anyway but with a notice to ask anyone with information about copyright to contact the library. Some people were concerned that they might be fined although it seemed that this would be unlikely unless the item remained online after a request to remove it had been made.