Present Musings on the Past: Creating a Digital Platform for the Galway City Museum.

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Abstract:

This paper will outline a pilot initiative in curriculum design with the intention of promoting active education, innovation in digital design and civic service in partnership with the cultural tourism sector. This is a case study in inter-disciplinary collaboration at Galway Mayo Institute of Technology (GMIT) where community service is empowered by linking the academic research of Art History and Software Engineering students with the needs of a local cultural institution, the Galway City Museum (GCM).

Key words: Art History, Software Engineering, Service Learning, Mobile Application, Cultural Tourism, Curriculum Design

Introduction

Essential to the flourishing of a vibrant cultural tourism industry is an informed knowledge of how our culture has been shaped by history. To communicate and share a sense of Galway's rich cultural heritage its citizens and visitors should have meaningful access to material intelligence about its history. The construction and expression of cultural identity is not static but in continual metamorphosis, with each evolutionary phase building chronologically on the previous.

This project was piloted as a service-learning seminar within the Art History/Critical Theory module entitled *Musealisation of Objects: Working with Collections* taught by Marion McEnroy-Higgins, at GMIT's Centre for Creative Arts & Media (CCAM)[1] in partnership with staff of the GCM, supported by the National Museum of Country Life, Mayo (NMCL) and the National Museum of Ireland, Kildare Street.

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[1]A 15 ECTS module in partial fulfilment of the Level 7 BA in Fine Art. The Software Engineering student work was also weighted at 15 ECTS their Level 8 degree.

The structure of the project was that the Art History students would research a range of historic objects from the GCM and contemplate their current responses to how these objects might inform and inspire current perceptions of local identity; the Software Engineering students would design a Mobile Application to make the Art History research and writing on the artefacts from the GCM digitally available to the public.

Cross-Disciplinary Collaboration

Present Musings on the Past is a collaborative project between BA Fine Art and Design (level 7) students and BSc (level 8) in Computing in Software Development students. The project was driven by the common ambitions of Art History and Software Engineering. Our shared values were to support and fully develop "real-world" contexts for the cultural tourism sector, while encouraging depth and rigor in academic research, creative teaching and learning and innovation in digital production. This is in line with the Institute's strategy to prioritise interdisciplinary based research and to formalise collaborative arrangements which enhance the Institute's capacity for research (GMIT Strategic Development Plan 2010 – 2015).

Learning Objectives

Among the learning objectives for the Art History students was to produce a series of articles on objects from the collections of the GCM entitled *A History of Galway in 30 Objects.* Pedagogically central to the art historical module was to introduce students to critical theories (MacGregor, 2012; Latham, 2012; Arnold, 2004; Zimmer & Jefferies, 2007), about how objects function as documents in the creation and expression of knowledge and culture. The benefits of the project were manifold. The students learned about museum curation, education and objects through academic seminars in GMIT, and from talks and tours with staff from the GCM and the NMI. In turn, Galway City Museum and its visitors will benefit from their output both locally in the museum, and world-wide via digital platforms. The students' research will be posted on the 'Our Irish Heritage' website hosted by the NMCL (www.ouririshheritage.org).

An important component of the project was the challenge of making the research outcomes accessible via contemporary platforms of communication. In September 2012 a cross-institutional project was initiated to develop and enhance digital skills and specialisms between The Colleges of Tourism and Arts (CTA) and The College of Science at GMIT and the civic stakeholders, GCM. The project was to design a Mobile Application for Windows and Android platforms. Our project goal was to build capacity and to showcase GMIT student research and to facilitate a range of stakeholders in mediating academic and research information more widely through our shared communities of interest.

The Mobile Application forms the core work for some students in the Applied Project Module in Software Development. The aim is to involve the students with industry and/or community partners to facilitate the development of portfolio work while making a recognised contribution to the third party. Key to the learning outcomes for the module is the delivery of a working piece of software which has been designed and tested with the end user in mind. Part of this is the

provision that the content is easily updateable and that the delivery mechanism is one appropriate for the intended use and implementation of the project. Mobile devices are prevalent in modern society, and this is an ideal way to deliver the information to visitors to the museum as the consumers of the articles written and compiled by the Art History students.

A History of Galway in 30 Objects

The public title for the project *A History of Galway in 30 Objects* was used for the 'Our Irish Heritage' website. This was inspired by *A History of the World in 100 Objects,* collaboration with the British Museum and BBC Radio Four, comprising a 100-part radio series written and presented by Neil MacGregor, Director of the British Museum. The radio series, which has since become a best-selling book published by Penguin paperback 2012, tells the story of civilization through objects from the collections of the British Museum. Similarly, in the Weekend Review for the *Irish Times*, Fintan O'Toole has been writing a column - *A History of Ireland in 100 Objects* - about objects from the collections of the National Museum of Ireland that illuminate aspects of Ireland's past.[2] In consultation with Brendan McGowan of the Galway City Museum, it was decided that this model would prove interesting in a local Galwegian context and had the potential to contribute to our present understanding of our past heritage.

Pedagogic rationale in Art History /Critical theory

The partnership with the GCM set out to introduce students to professional practice in the field of museology. The project was also motivated by the development and improvement of teaching skills to incorporate civic engagement, inter-disciplinary partnership and active learning promoting student research in real life contexts, as prioritised by the National Strategy for Higher Education to 2030 (Hunt report 2011). The rationale for this model is based on social-constructivist theory of learner-centred generative learning, whereby the construction of knowledge and meaning occurs through active research and interactions among learners (Tsang, Annetta K. L 2011). There is great scope for increased service learning in GMIT's Centre for Creative Arts and Media (CCAM) programmes and this pilot project could be developed to sustain civic engagement with other cultural organisations and festivals in the region.

The curriculum was designed with the paradigm of 'Being, Knowing, Acting' for professional subjects in mind (Barnett & Coate 2005). It was important that the Art History seminar structure would help prepare the Art and Design students for future learning by introducing them to local and National public sector institutions to initiate them to these potential resources for Postgraduate or independent research and possible employment in the sector. To this end, field trip visits were factored into the seminar schedule to emphasise student engagement with museum collections. GCM staff, Brendan McGowan, Museum Mediator & Development Officer who was the lead partner in the project along with his colleagues James

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2 The Royal Irish Academy, in partnership with the EU Presidency, the Dept. of Foreign Affairs and Trade, and Adobe, released a multi-platform app and ebook of *A History of Ireland in 100 Objects* by Fintan O'Toole in conjunction with the NMI. Built by Joe Zeff design. (http://www.100objects.ie/)

Reynolds, Museum Mediator and Helen Birmingham, Documentation Officer gave generously of their time and expertise in guiding the students' research. Nessa O'Connor and Mary Cahill, Assistant Keepers, Irish Antiquities Division of the National Museum of Ireland, Kildare Street also gave tours to the CCAM students giving them valuable insights into their curatorial practice, the archives and NMI collection.

The Challenge of the Mobile Application

Development of an App with ever changing and evolving content is a design challenge in that the framework for presentation is the primary feature for consideration. To present information in a readable format and through the medium of mobile devices requires careful planning and forethought about the delivery platform and mechanisms. In a mobile world, context is also required to ensure that the user is presented the correct information at the appropriate time.

Wandering the museum in Galway is an activity with no fixed pattern as people move from exhibit to exhibit and spend a varying degree of time at each. Also, the layout of exhibit may change from time to time and their position on the floor may also be changed to facilitate new items. To account for this and to provide a set of metrics to the museum requires that the app respond to user demands rather than force a specific agenda on the visitor.

Pedagogic rationale for Software Engineering students

The App has the potential to make a real contribution to Galway's international cultural profile, while re-enforcing best practice in software design. It encourages collaboration between students in different disciplines facilitating discourse and intellectual exchange. The project is inquiry based as it focuses on exploring objects and their agency in a museum context, encouraging active learning in context with the aim of contributing to our present understanding of our past heritage. Our aim was that the Software Development students would also experience the potential for working with the cultural sector and developing a context based software application. Other world-wide users of the digital resource will learn from the material made freely available as a result of the application development. Software development is requiring that practitioners and developers understand the architecture of cloud and mobile computing. This project was a practical, context based, multi-disciplinary effort and as such aimed to help the students develop critical research skills and the interpersonal skills required to successfully work in such an environment.

In the past academic year 2012-13 we created one resource in the form of the App linking visitors to Galway with the Galway City Museum's collection and GMIT student work. We envisage the potential to develop the App as a resource that could serve other cultural organisations such as contemporary galleries and cultural events in Galway. The App could be used not only for academic reference but for general touristic purposes to enhance access to the cultural sector in the West of Ireland. GMIT's newly structured Creative Centre for Arts & Media is now part of the larger GMIT college of Tourism and Arts and is a project which fulfils our remit for the region. As a free to download App it could be used

by any academic programme interested in the Arts and tourism to access information about the Galway City Museum and Irish Heritage, with the future potential to include contemporary art spaces.

As society has embraced mobile devices, the user interface has evolved to the point of simple gestures encompassing a multitude of actions depending on the current application in use. The technology underneath has advanced and recognising the context and providing timely information is the real challenge that many developers face. Technologies like Bluetooth, Near Field Communication (NFC) and Cloud Computing provide a means for this context based delivery. This collaboration with the students of Art History provided the developers with the content, so they had to design the App to be fit for purpose and to provide a safe, easy mechanism for updating the content. Recognising context can be achieved in many ways. Previously done with Radio Frequency ID (RFID) and Bluetooth to identify when the mobile device in within a specific range, it can also be managed using simple Quick Mark (QR) codes. These are easily created for the artefacts in the museum and easily scanned by most mobile devices. This provides the current context for the App, allowing it to retrieve and display the relevant information from the cloud where it is stored. As the visitor moves to a new exhibit and scans a new code, the metrics can be gathered allowing a picture of the footfall and the time spent reading about exhibits to be gleaned by the museum curators.

For students of Software Engineering with an interest in creating applications for the cultural tourism industry there are many interesting international examples of practice. Cosmo Wenman, who has worked on a project scanning artworks for 3D printing from the J. Paul Getty Museum in Los Angeles states that: 'The technological changes happening right now are going to up end traditional notions of a museum's purpose as well as challenge intellectual property concepts and practices across many industries.' He predicts that: 'Museums will eventually be measured by the quality of the data they publish, and their expert scholarship and curation, as much as by the collections they control.' (Wenman, 2012). There is scope for future GMIT Software Engineering projects similar to Wenman's that could explore technological possibilities of working with collections both on a local and national scale in Ireland.

Outcome of the Software Development Work
Rather than simply focus on the context within the museum, the students have designed an app that will provide a context for the museum within the Galway surrounds. Using the event list from the museum website gives visitors to Galway information about the museum before they get to Galway. In a global market, Apps are not restricted in where they are downloaded. Providing information about the museum and its location (using GPS data and the Google Maps API) provides an impetus to bring the visitor to the museum quicker and more directly. Giving a fuller picture of the museum activity and location enriches the user experience even before they have entered the front door.

Using the camera to scan the QR codes provides a seamless integration for the user to retrieve the information of interest and reduces the need for printed

material to guide visitors through the museum. Using the cloud ensures that the content can be updated and managed without the need for the user to update the App on the phone. Finally, collaborating with the Art History students allowed the design and implementation of the architecture of the App to be the real focus for the software development students.

The Galway City Museum App provides access to the Collections, Programme of Events and museum location and is available for download at http://db.tt/tTiTbc9j for the Android platform. At the time of submission, it is not available from the general marketplace.

Potential Service-Learning between GMIT and Cultural Tourism partners in Galway

This pilot project with the GCM could be adapted to engage in partnerships with other cultural venues in Galway. Situated on the Western periphery of Europe, Galway, as a locus for art and design education, enjoys inclusion in the international sphere of contemporary art practice through blended platforms. We have a vibrant physical presence of visual art exhibition venues, including The Galway City Museum, the Galway Arts Centre, and innovative artists' collectives such as Gallery 126, Lorg Printmakers, Artspace, and Engage Art studios amongst others. The perennial Galway Arts Festival also enriches our cultural life. These cultural institutions are potential community partners for future service learning and inter-disciplinary collaborative projects.

Our colleagues in NUIG have a well-established practice in this field of education. In 2001 NUIG launched its Community Knowledge Initiative (CKI) whose initiatives are viewed as: 'integral to the University's strategic mission…and were subsequently viewed as a core priority by NUI Galway's Academic and Strategic plans.' (www.nuigalwaycki.ie).[3] In GMIT progress is being made in the area of service-learning to fulfil our objective to contribute to the social, cultural and economic well-being of the communities served by the Institute (GMIT Strategic Development Plan 2010 – 2015). This is the first accredited service learning module from GMIT CCAM which is now part of the newly structured CTA and there is great scope for future community partnerships that could benefit tourism in the Arts and Culture sector in Galway.

Andy Van de Ven, a leader in the Academy of Management, on the role of service-learning in the movement toward a scholarship of engagement states that:

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[3] Tansey and Gonzalez-Perez (2007) of CKI NUIG state that: 'It is widely recognised that institutions of higher education can promote civic engagement through purposeful interventions ([citing] Al-Kodmany, 1999; Amey & Brown, 2005; Anscome, 2003; Backer & Norman, 2000; Biermaun, 2006; Borthwick et al, 2006; Brockliss, 2006; Checkoway, 2006; Cone & Payne, 2002; Mulroy, 2004; Sánchez, 2006; Soska & Johnson Butterfield, 2006; Steinberg, 2001; Watson, 2003; 2007; Zlotkowski, 1997).

'Service-learning projects provide unique opportunities for students (and their mentors) to be simultaneously exposed to academic ways of knowing in the classroom and experiential ways of doing things in practice. Direct personal exposure to these different communities of theory and practice is the central learning dynamic in service-learning projects. Students need direct experiential appreciation of the limits of theory in this unpredictable world. We can try to simulate discussions of practice all day in the classroom, but unless you face it up close and in person through experience, the necessary insight somehow doesn't translate.'

(Kenworthy-U'Ren, A. 2005).

Iain MacLabhrainn, Director of NUIG's Centre of Excellence in Learning and Teaching (CELT) and his colleague Kelly Coate in their article 'Irish Higher Education and the Knowledge Economy' caution that:
> 'the particular roles of the arts, humanities and social sciences and their contribution to society need to be continuously reinforced and reflected in a higher education that values the transformative potential of the learning experience in terms other than the purely economic.'
> (Coate & MacLabhrainn 2009)

In this case study the learning experience had tangible practical outcomes in the public accessibility of the research on both website and the App. It was also transformative in terms of deepening the students' knowledge and appreciation of aspects of the history of Galway and our contemporary identity specific to the objects researched.

Outcomes of Student Art History Research

The objects investigated by students ranged from objects of material culture from a 19th century Galway Militia officer's coatee, to a Capitol Show band suit designed by Dougie Millings, tailor to the Beatles. The strong seafaring culture that has shaped Galway was revisited in researching the 'Mairtín Oliver' Galway hooker, named after the last King of the Claddagh majestically hung in perpetual dry dock in the centre of the GCM's interior architecture. Galway's present cosmopolitan population of circa 20% non-nationals[4] is a continuation of the city's historic links as a port town, as evidenced by objects of international trade such as a 17th century Portuguese Faience vase. Periods of religious and political conflict were recalled on closer examination by students of the 'James II Gun money' from 1690 and altar cloths made in Spain by an exiled Dominican nun from Galway Sr. Margaret Joyce. The range and diversity of the objects and the particular angles of consideration that each student took in the writing of their short articles made for an intriguing repository of information for public reference. Ideas for further research, curatorial themes and civic development also emerged from student research and seminar discussions.

Conclusion: Tapping Higher Education into Cultural Tourism

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[4] As a proportion of its resident population, Galway City was the most multi-cultural with 19.4 per cent of its residents recorded as non-Irish (www.cso.ie 2012)

The original classical concept of the museum, in Greek *Mouseion* meaning 'home of the muses', was a building that housed artefacts that honoured the nine goddesses who personified the arts and sciences, and the word museum comes from this spiritual purpose in civilisation. Museums can act as important mediators in the relationship between people and their history, essentially taking a set of objects in order to compose or reorder them for us as we see them in the present. The act of presenting art history in these spaces is about presenting a past that relates to the present (Arnold 2004).

Fáilte Ireland has published statistics that reveal that more than three out of five (64%) of overseas holidaymakers point to Ireland's history and culture as a crucially important factor in their choice to come here with three quarters (74%) registering a high satisfaction rate with what they find here.[5] Irish museums are amongst the highest visitor tourist attractions in Ireland (See Appendix A). However, with perhaps the exception of the Science Gallery in Trinity, Irish museums have a long way to go in the area of technological development. Government investment in the sector is vital if we are to be competitive with international standards of best practice, and this includes investment in appropriate technology. Clever employment of technology in museum design is essential to keeping these spaces vital and engaging.

Museums in Ireland are experiencing cutbacks in administration funding that threaten "catastrophic damage" to our cultural institutions (NMI chairman Dr John O'Mahony quoted by Riegel 2013). In the context of this era of austerity whatever positive impact Universities and Institutes of Higher Education can bring to our cultural institutions through service learning must be valued and supported. Research funding which emphasises Inter-Institutional collaboration such as the National Digital Learning Resources Learning innovation Community Support Projects, which was unfortunately cut in 2012, if maintained could be instrumental in connecting academic and museum scholarship. If academics are creative in curriculum design and research strategy at both undergraduate and postgraduate level, we can make a significant contribution to regional tourism in Arts and Culture.

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[5] The National Tourism Conference, 'Culture and Heritage Tourism....An Emerging Economic Engine?', hosted in Dublin Castle as part of Ireland's EU Presidency, 25.04.2013 (http://www.failteireland.ie)

Osbourne, Kevin Pierce, Irene Quinn, Debbie Reilly, Peig Ryan, Seeka Sherlock, Mona Sweeny, Barbara Szostak, Lisa Turner, Martin Tyndall, Eoghan Wynne. GMIT Software Engineering students Enzo Lieghio and Barry Lennon.

Appendix A:

Failte Ireland Free Visitor Attractions 2011

Name of Attraction	County	Region	visitor numbers
The National Gallery of Ireland Dublin	Dublin	Dublin	624,412
National Botanic Gardens Dublin	Dublin	Dublin	501,000
National Museum of Ireland - Archaeology	Dublin	Dublin	402,582
Irish Museum of Modern Art Dublin	Dublin	Dublin	362,000
Farmleigh Dublin	Dublin	Dublin	315,464
National Museum of Ireland	Dublin		
- Decorative Arts & History		Dublin	295,488
- Natural History		Dublin	289,172
Chester Beatty Library Dublin	Dublin	Dublin	247,729
Science Gallery Dublin	Dublin	Dublin	242,833
Holy Cross Abbey	Tipperary	Shannon	240,000
The National Library of Ireland	Dublin	Dublin	206,342
Dublin City Gallery The Hugh Lane	Dublin	Dublin	135,007
National Museum of Ireland - Country Life	Mayo	Ireland West	108,785
Nicholas Mosse Pottery	Kilkenny	South East	92,000
Galway City Museum	Galway	Ireland West	80,491

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