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Local heritage as a participatory digital culture: the rise and fall of "Anglesey: a bridge through time" website

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**Local Heritage As a Participatory Digital Culture:
The Rise and Fall of
“Anglesey: A Bridge Through Time” Website**



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July 2015

This PhD is submitted to the School of Creative Studies and Media, Bangor University, in partial fulfillment of the requirements for the degree of Doctor of Philosophy.



Ysgoloriaethau Sgiliau Economi Gwybodaeth
Knowledge Economy Skills Scholarships



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Abstract

This practice-based PhD research project chronicles an attempt to build a participatory digital culture around local heritage, in order to promote tourism to one of the UK's poorest counties. Funded by a public-private EU scheme, the researcher designed a 25,000-word "virtual museum", in partnership with local agencies and the local authority. Based on a theoretical framework drawing insights from narrative studies, participatory media theory, current heritage installations, and Critical Heritage Studies, the researcher built a hybrid website: it augments expert-vetted interpretation with "warm," person-centred narrative and images, incorporating diverse perspectives and participatory social features like photo-sharing, user comments, and social media campaigns -- to be monitored and updated by a dedicated team of volunteers in a model of "distributed co-curation," to insure sustainability without draining paid staff time. However due to legal concerns over user-generated content, on handover to the local authority for long-term hosting, access to the website's backend and analytics were disallowed to the researcher and volunteers, rendering updates and complete analysis impossible. The website did not find its audience, and the participatory culture did not materialize. Subsequent literature study reveals documented trends that may have contributed: heritage tourism planning is often hampered by poor collaboration and cooperation, local tourism planning is routinely dominated by informal and irrational "kinship" relationships, and local authorities across Europe struggle with technology adoption, especially with Web 2.0 and participatory media. The project reveals that on the local level, especially in rural or conservative areas, designers of digital media for

participatory heritage face significant challenges on issues of technology adoption, polysemic interpretation, multivocal presentation, intangible or “everyday heritage,” authority, and control.

Acknowledgements

With sincere gratitude I acknowledge the institutions and the many people who contributed to this research project. It could not have happened without funding from the European Social Fund, administered both through Bangor University's Knowledge Economy Skills Scholarship (KESS) Programme and through the School of Creative Studies and Media. My sincere thanks to the scholars and administrators who support and implement the programme. Truly special thanks is owed to my patient and thorough academic supervisor at Bangor University, Dr. Eben Muse, whose habit of pointing out my many blind spots sparked me to grow, both as a researcher and as a person.

Acknowledgements and praise go also to the leaders of Mentor Mon, the enterprise agency for Anglesey who bravely agreed to serve as KESS business partner. My special thanks and sincere admiration go to its Heritage Officer, archaeologist Neil Johnstone, who supervised the research project "Anglesey: A Bridge Through Time" and thereby dared to push the boundaries of heritage interpretation. My sincere gratitude also goes out to the volunteers on the project, who gave generously of their time and attention: co-curators Rhys Mwyn, Eflyn Owen-Jones, Frances Lynch Llewellyn, Anne Harris, Emlyn Jones, Neil Fairlamb, Graham Williams, Michael Burkham, and Bob Daimond, and contributors Sara Elin Roberts, Gareth Wyn Jones, Ken Brassil, Bryan Hope, Elizabeth Birtles, and Kristoffer Hughes.

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Chapter 1: Introduction

This practice-based PhD research dissertation will introduce, contextualise, theorise, present, and analyse a digital strategy expressed in a creative artefact, the participatory heritage website “Anglesey: A Bridge Through Time” (see Figure 1, below). Devised, edited, and written by the researcher, in collaboration with local stakeholders, the website enacts theories and practices of interactive media and participatory heritage in a local context, with the aim of increasing heritage tourism to the area. Funded through Bangor University’s Knowledge Economy Skills Scholarship (KESS) programme, which supports research that stimulates local industry, the research was transacted via a partnership with Menter Môn, the enterprise agency for Anglesey.

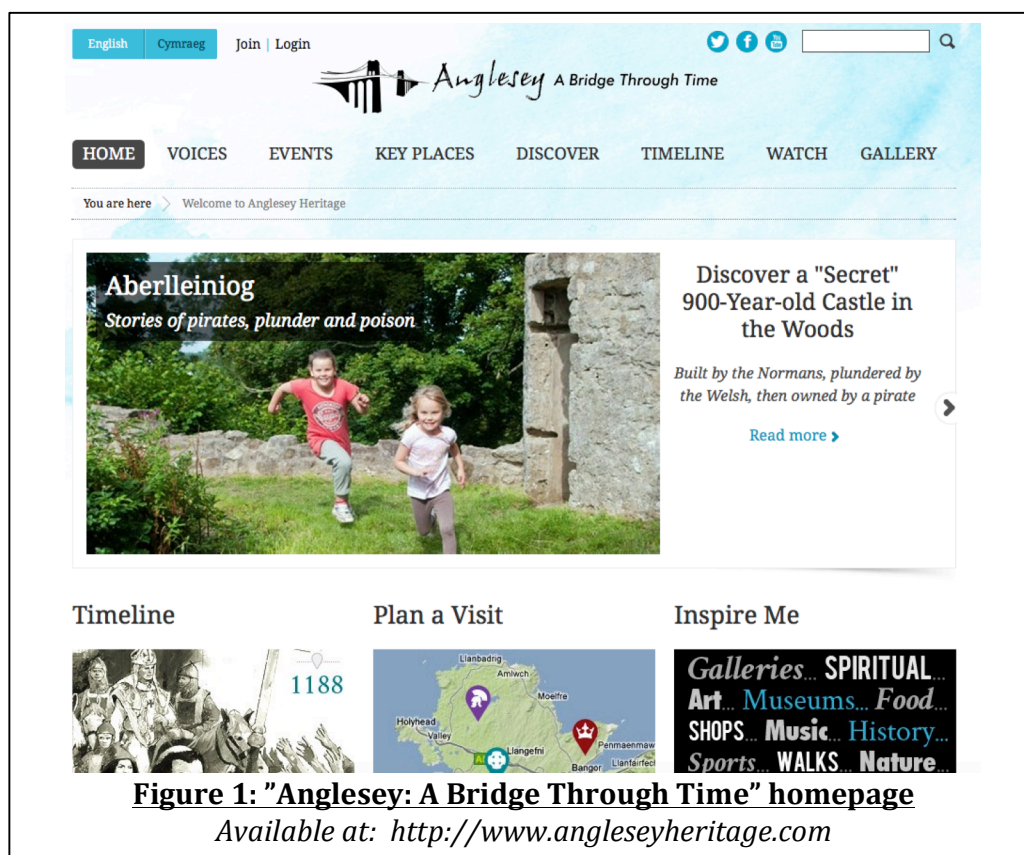


Figure 1: "Anglesey: A Bridge Through Time" homepage
Available at: <http://www.angleseyheritage.com>

This thesis investigates many fields; it places the project in a complex multi-disciplinary ground. This was achieved not by design, but instead out of necessity and as a by-product of a five-year journey of exploration. Starting with two already divergent and slippery end goals -- increasing heritage tourism to Anglesey and building community -- the researcher was naturally led on many paths, some of which intersected in interesting juxtapositions. Others dead-ended, or did not find resolution or inclusion in the final work. All will be discussed in detail.

The figure below maps the project's place at the intersection of both theory and practice in the fields of heritage, tourism, and media (especially including the sub-field of participatory media), as they interplay in a real-world application directly related to the physical location of Anglesey, an island off North Wales (see Figure 2).

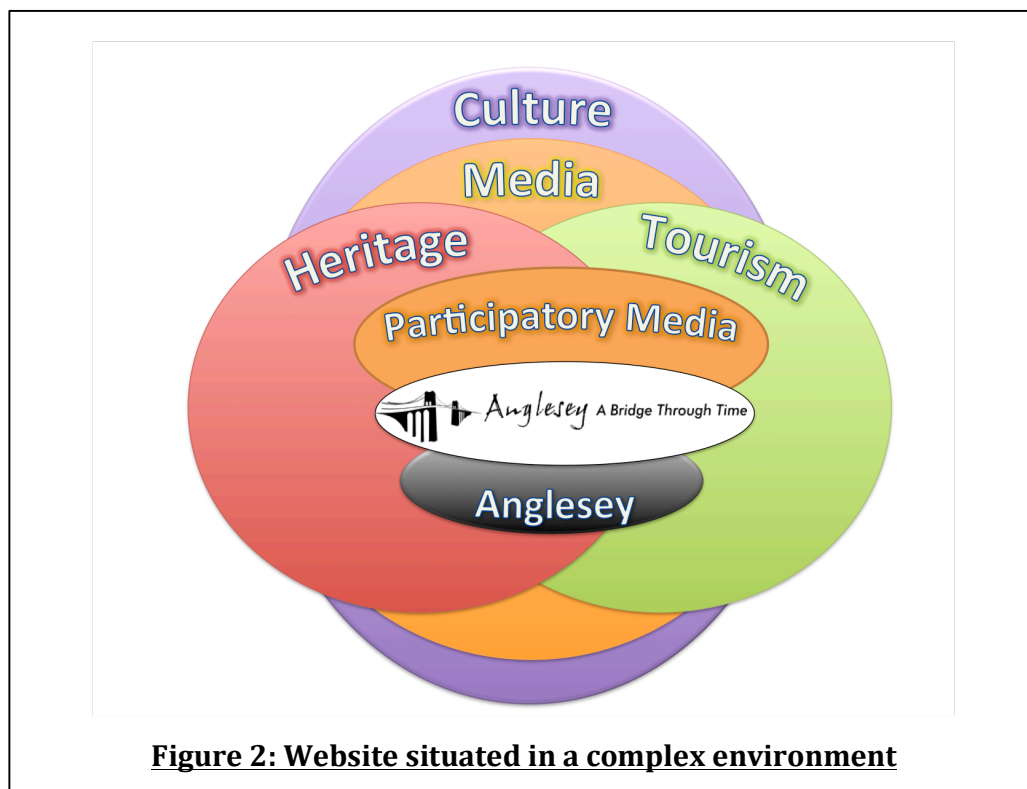


Figure 2: Website situated in a complex environment

Of course this figure is an oversimplification; it doesn't reflect the relative sizes of these fields and misses out many smaller pieces of the puzzle, such as insights drawn from fields like sustainable development and cooperative behaviour (examined in Chapter 1), impacts of multiculturalism and postmodernism (Chapter 2), parallels and contributions from practitioners in museums and libraries (Chapter 4), and methodological approaches borrowed from the social sciences and from Interaction Design Research (Chapter 5). In addition to drawing from many academic fields and practices, the project faced additional complications from the competing (and often hidden) interests of its many real-world stakeholders and partners (discussed in Chapters 2 and 7). As a real-world project, it also necessitated the researcher's mastery of various applied domains such as project management, digital rights management, user interface design, content management systems, interaction design, photo research, and writing-for-the-web.

As discussed in more detail in the methodologies chapter, the whole project (the assembled website together with the written thesis) constitutes a wide-ranging intellectual and practical journey, a *bricolage* (interdisciplinary mixed-methods-construction) that encapsulates, symbolizes, and embodies an intersection of all these fields and concerns. As such it makes contributions to official disciplines, such as heritage and media, especially their newer sub-fields of participatory heritage and participatory media, which may find inspiration within this bricolage. In addition, for researchers attempting participatory interventions within the local context or in partnership with or government agencies, the thesis can offer practical advice (see Conclusions).

This written thesis details the context – local, academic, and practical -- for this project. First the local context: Anglesey is a 714-square-kilometre island off the North coast of Wales, near to Bangor University. With 26 award-winning beaches and a 200-km coastal walking path surrounding a designated Area of Outstanding Natural Beauty, it hosts a steady seasonal tourism trade, as discussed in Chapter 2. In addition the island is also home to 143 scheduled heritage monuments, some of national and international significance, which could be further promoted in a heritage tourism strategy to boost the island’s economy, consistently one of the poorest performing in the UK. However local stakeholders struggle to coordinate a heritage tourism plan for the island, as detailed in Chapter 2. Given this context, Menter Môn agreed to partner in the current research to help discover new and innovative ways to use digital technologies to support heritage tourism. This dissertation is the result of this five-year partnership of exploration, research, and discovery.

For its literature review, the current research project examines the field of heritage, which has changed dramatically in the last 50 years, from an exclusive focus on the monumental remains of so-called Western societies to a broader imperative, which sometimes incorporates alternative discourses, intangible heritage practices, or personal and familial histories, as chronicled in Chapter 3. Founded in 2012 the Association of Critical Heritage Studies is a worldwide movement committed to unpacking power imbalances associated with dominant “authoritative heritage discourses”; its perspective inspires the project. In addition, the current research is grounded in media studies, especially theories and practices related to participatory digital cultures, and in newer online participatory heritage

initiatives. Chapter 4 surveys these fields in detail and offers a new analysis of power imbalances inherent in crowdsourcing within the museum sector, versus independent participatory projects arising from academic practitioners or community activists.

Chapter 5 presents the researcher's methodology, drawing on the tradition of the *bricolage* (interdisciplinary mixed-methods-construction), narrative theory, consumer psychology of websites, and recent theorising in Interaction Design Research. Assembling insights from across academic fields and contemporary digital practices, the researcher creates an innovative theoretical framework for the digital strategy. As designed the website aims to augment "warm," person-centred yet expert-vetted heritage narrative with participatory, community-sourced elements in order to present and enable a multi-vocal collection of polysemic heritage processes. To develop and test theories related to "local welcome," and "distributed co-curation," the researcher recruited and trained a team of 10 local heritage enthusiasts to serve as "co-curators": they host web pages related to specific heritage sites, contribute interpretation, and both monitor and spark online conversation. Intentionally seeded as an experiment in multi-vocality and participatory heritage culture, the website was therefore designed to be self-sustaining: volunteers would monitor and update the website, its user-generated content, and its affiliated social media accounts.

Chapter 6 then describes the actual process of building the website. Some of this work was technical in nature (comparing Content Management Systems, negotiating the technical specification documents). Other aspects required commercial acumen (creating a Request for Proposal, interviewing potential

providers). The website project also required community-building skills, working toward consensus and shepherding authors into the world of digital storytelling. Chapter 6 then presents the completed website as a creative artefact. Guiding the viewer via six short videos published both online and on digital disc (included), the researcher discusses and demonstrates features of the website, so that it may be experienced as intended, not as later modified by its current owner.

Chapter 7 offers a detailed discussion of the methodological, organisational, and philosophical/attitudinal factors that likely impacted crucial stakeholder decisions about the final implementation of the website. Placing the current digital strategy within an international context of local government forays into participatory media, additional literature review shows the present project to be more groundbreaking and innovative than had been previously understood. Further analysis also reveals the participatory project as deeply challenging to well-established norms and attitudes, all of which likely contributed to the website's ultimate fate. At end, though preliminary research demonstrated the website's success as a provider of engaging content, important stakeholders prevented it from finding its audience and thereby reaching its participatory potential.

Even after 15 years of Web 2.0 ascendancy, digital designers -- especially if they partner with risk-averse local authorities -- will face significant challenges when they attempt to widen the discussion in local heritage. If they would build for widescale user participation, concerns arise surrounding issues of multi-vocality, authority, and control. Who will shoulder the risks of controversy?

Chapter 2. The Immediate Context: Heritage Tourism on Anglesey

2.1 Introduction

This chapter summarises and reviews current thinking on the economic value of heritage to Anglesey — in particular the potential value of heritage tourism. The physical heritage of Anglesey, stretching over 7000 years, is outlined, including major sites and the infrastructure that makes them viable tourist destinations. The chapter concludes by identifying the major stakeholders responsible for identifying, maintaining and promoting these heritage resources and discussing relevant research regarding stakeholder cooperation in tourism planning.

2.2 Heritage Tourism

Heritage plays a key role within the larger booming tourism industry. Since 2010, tourism has been the fastest-growing industry for employment in Britain, accountable for one-third of the net increase in UK jobs (Tourism Alliance, 2013). Tourism itself is now the sixth largest industry in Britain, projected to be worth £127 billion to the UK economy in 2013, equivalent to 9% of the UK's Gross Domestic Product (Deloitte 2013). The economic benefits of tourism come from numerous sub-sectors (see Figure 3, below).



VisitBritain is the trading name of the British Tourist Authority (BTA) which describes itself as “the strategic body for inbound tourism and the national tourism agency – a non-departmental public body funded by the Department for Culture, Media & Sport.” (VisitBritain). It works with other organisations such as Deloitte and the Office of National Statistics to create and distribute insights into all aspects of UK tourism. According to VisitBritain (2013) and Deloitte (2013), the tourism industry supports more than 3.1 million jobs, which is 9.6% of all jobs and 173,000 more than in 2010 (VisitBritain 2013).

Moreover, experts predict that the UK tourism industry will grow at an annual rate of 3.8% through to 2025, much faster than the overall UK economy. Britain will have a tourism industry worth over £257 billion by 2025 – just under 10% of UK GDP and supporting almost 3.8 million jobs, which is around 11% of the total UK number (VisitBritain 2013).

Within the larger UK tourism picture, heritage plays an increasingly important role economically. The Anholt GfK Nations Brand Index measures the brand image of 50 countries annually. It includes cultural heritage, defined as “global perceptions of each nation’s heritage and appreciation for its contemporary culture, including film, music, art, sport and literature” (Keillor and Kannan 2011; p. 106) as one of eight branding factors. In 2013 the survey, which included a total of 20,445 online interviews conducted in 20 developed and developing countries (GfK 2013), ranked the UK 7th in terms of “cultural heritage” (VisitBritain, 2013). Of the roughly 30 million foreigners who visited the UK in 2009, 7.7 million visited a museum, 5.8 million visited a castle, 5 million visited historic houses, and 6.4 million visited religious buildings or monuments (VisitBritain 2013).

A 2013 report commissioned by the Heritage Lottery Fund (HLF) examined the specific role that heritage plays within the larger UK tourism sector. It found that heritage directly accounts for at least £5 billion in GDP and 134,000 jobs (Beyrouthy and Tessler 2013). In addition, when researchers factored in indirect “impacts,” the value of heritage increased. The HLF declared that in 2013 heritage-based tourism was worth £26.4bn to the UK economy, £5.8bn higher than its 2010 estimate (Heritage Lottery Fund 2013).

If the British tourism industry “is worth” £127 billion (VisitBritain 2013) and heritage tourism specifically “is worth” £26.4 billion (Heritage Lottery Fund 2013), then it follows that heritage tourism accounts for about 20 percent of the tourism industry.

In fact, this is the same proportion (20 percent) that researchers used in a recent report commissioned by the Valuing our Environment Partnership of Welsh government agencies, including: the Welsh Assembly Government (Visit Wales and the Department for the Economy and Transport), Countryside Council for Wales, the National Park Authorities for the Brecon Beacons, Pembrokeshire Coast and Snowdonia, and the Heritage Lottery Fund. The report aimed to estimate the value of the Welsh historic environment in strict economic and social value terms (ECOTEC, 2010). According to the report, the historic environment accounts for one-fifth of total tourism expenditure: “without an appealing historic environment, Wales' other attractions would not be enough for 20% of visitors to choose Wales over other destinations” (p 18). Based on this assumption, the report estimates that the historic environment directly contributes £360 million to the Welsh economy and supports 10,300 FTE jobs in Wales. (ECOTEC 2013; p. 14). If one adds in “indirect and induced” impacts, heritage tourism is worth £610 million and supports 14,900 FTE jobs. (ECOTEC 2013; p. 14)

2.3 Anglesey Economy

Anglesey (Welsh: *Ynys Môn*) scores among the worst-performing county economies within Wales, in the wider UK, and within the broader EU context as well. Every year, the UK's Office of National Statistics reports the Gross Value Added (GVA) of every UK region and sub-region; this number represents the total value of the goods and services produced therein. In 2009, the Isle of Anglesey reported the second-lowest GVA in the UK, at 57.2% of the UK average. Anglesey and the Gwent Valley account

for two of the five lowest-GVA-per-head UK regions, relative to the UK average (Stokes 2011: 5).

Between 2003 and 2010, Anglesey lost approximately 2,000 jobs, 1600 of which were in the manufacturing sector (Isle of Anglesey County Council 2012a: page 4). According to the local council, in 2012 the island had about 1,800 Job Seekers claimants: “Claimant rates for Anglesey are much higher than other parts of the sub-region and have been consistently higher for a longer period” (Isle of Anglesey County Council 2012a: page 4). Many residents have simply left; the council reports a net loss of 1,300 working- age residents since 2005, a -3.3% decline, at a time when Wales as a whole has seen a 1.2% increase (Isle of Anglesey County Council 2012a: page 4).

2.4 Tourism on the Island

Despite the loss of manufacturing jobs, Anglesey’s tourism sector remains relatively stable over time. With its 26 award-winning beaches, 200-kilometre coastal walking path, many and diverse tourism attractions, hundreds of holiday homes and campsites, and well-known water sport facilities, the island hosts a steady seasonal tourism economy. According to the county council, tourism supports more than 4,000 full-time equivalent jobs on the island and creates £234 million in income per year (Isle of Anglesey County Council 2012b: pages 6 and 7; National Trust 2006). Tourism accounts for 6.4% of Anglesey’s GVA; only 6 of Wales’s 22 unitary authorities have higher rates of Tourism GVA (Isle of Anglesey County Council 2012b: page 7). Going forward, as manufacturing and agriculture further decline, tourism remains a key factor in Anglesey’s economic survival and growth (Isle of Anglesey

County Council 2012a; Daily Post 2013). “[T]ourism is extremely important to future prosperity for Anglesey. It is one of only a few realistic growth areas for economic prosperity in the current economic uncertainty,” declared the county council in 2012 (IoACC Economic Development, Tourism and Property Scrutiny Committee 2012).

2.5 Anglesey Heritage Tourism

Anglesey’s heritage landscape is rich with potential. Akin to Wiltshire or the Orkneys, the 714-square-kilometre Welsh island possesses a large number of important heritage sites. Many of these sites have historical, religious, social, economic, political, and/or ecological import, some on the national and international level. In addition, many are set within areas of unspoilt natural beauty, which add to their appeal and contribute to an exceptional opportunity for tourism marketing. For example, Anglesey’s Neolithic burial site Barclodiad y Gawres, which is set on a bluff with panoramic sea views, has world-class archaeological significance, on a par with Newgrange and Knowth in Ireland. The island’s 88 other Neolithic monuments include cairns, standing stones, and hut circles.

Some of the island’s 54 other, post-Neolithic scheduled monuments hold national significance. For example, Llys Rhosyr is the only (as yet) discovered court of a medieval Welsh king, a unique national treasure, which lies in farmland just a quarter mile from a blue flag beach and national nature reserve. It’s another underutilised heritage tourism gem. In addition, Anglesey is home to two holy wells that span epochs; they are known to have been in use even before the Roman invasion, likely even during the Neolithic period. A few younger Anglesey heritage

sites, like Amlwch Copper Kingdom and the two bridges spanning the Menai Straits, represent important advances from the Industrial Revolution.

Together the island's 143 scheduled monuments encapsulate and illuminate the story of human habitation within the British Isles, many set within a designated Area of Outstanding Natural Beauty. If one also factors in Anglesey's coastal walking path and its many other non-heritage attractions and facilities, one could argue that Anglesey holds the potential to become a prime heritage destination. In fact, the Parkin Consultancy, working with a group of experts in archaeology, heritage, and tourism, argued that exact point in 2003, when it published the *Mona Antiqua* Report (Parkin et al 2003). The report concluded that Anglesey is a "treasure island" of heritage resources, facilities, and tourism potential that is not fully utilized: "A significant number of existing visitors to Anglesey are already attracted to its antiquities and bird life and it is considered that the island's heritage could be more effectively presented" (Parkin et al 2003).

Moreover, in addition to economic renewal, heritage tourism investment could offer Anglesey a social renewal, according to some experts. For example, in the field of tourism, Medeiros de Araujo and Bramwell, in a study of Brazil's Costa Dourada Project, demonstrated that involving local citizens in tourism planning can enhance self-reliance, awareness of local issues, and sense of ownership (Medeiros de Araujo and Bramwell, 1999). Steven Miles has shown that a heritage regeneration programme which grows out of a community's self-understanding can "reinvigorate the relationship between cultural, place and personal identity and offer a permanent legacy" (Miles 2005, p.921). Andrew Newman and Fiona McLean have demonstrated

a link between heritage-making within museums and goals such as social inclusion and citizenship (Newman and McLean 2006; p.62). According to Laurajane Smith, engagement in the heritage-making process can foster empowerment, which can lead to greater social and civic engagement, because heritage-making is a “process of meaning making where the ability to challenge and change received ‘expert’ and authorized notions of history and identity can be worked out and enacted’ (Smith 2006; p. 298). Heritage engagement, therefore, holds the potential to improve the island both economically and socially.

Despite the need for these benefits, a coordinated heritage tourism plan for the island has been slow to develop. In 2003, based on Parkin’s *Mona Antiqua* report, Menter Môn (the Anglesey enterprise agency) secured European funding through Cadw (the Welsh government’s heritage agency) to create the *Mona Antiqua Heritage Tourism Project*, a multiyear strategy to present the island as a heritage tourism destination (Cadw 2011; p.6.). While that fund had physically improved several sites on the island, by 2010, when the current research project began, very few resources were devoted to promoting Anglesey heritage, especially online. A few hobbyists had created small heritage-focused websites, such as <http://www.angleseyheritage.org>, but these remained independent. In 2010, the Isle of Anglesey County Council published a paper brochure on the island’s heritage sites. Within a few months, stocks ran out but it was not reprinted. From 2010-2013, text from that brochure was used on the council’s general tourism website, which included several separate pages about heritage sites -- if a user searched for them under activities or under the tab “History.” There was no dedicated heritage area of

the website, no larger interpretive framing such as a Timeline or thematic overviews (no “Romans” or “Celts” or “Castles”). On the council’s tourism website, heritage sites were listed individually as activities, intermixed with farm parks and tea rooms.

Indeed in 2010 some local tourism groups still ignored heritage altogether. Tourism Partnership North Wales, a membership group comprised of business owners in the sector and local government officials, published a 15-page, full colour “Annual Review 2009-2010: Executive Summary” that year – without a single mention of heritage or heritage tourism within it.

2.6 Stakeholders

Stakeholders for Anglesey heritage tourism are many and varied: local business owners, the Anglesey Tourism Association (trade group), the Isle of Anglesey County Council, Cadw, the Royal Commission on the Historic and Ancient Monuments of Wales, the North Wales Tourism Partnership (regional trade group), the Gwynedd Archaeological Trust, Natural Resources Wales, and Menter Môn. Some of these stakeholders have distinctive interests, roles, and mandates related to particular physical places (e.g. Cadw is responsible for the larger, most well know heritage sites, such as Beaumaris Castle). However, as might be expected when so many agencies focus on such a small and richly varied area, this is also a lack of clarity in terms of responsibility and scope across agencies (see discussion below). This lack of cohesive vision and clearly defined boundaries creates additional complications for heritage tourism initiatives – a theme that will be returned to later in this thesis. Several of the primary organisations merit further consideration:

Anglesey County Council, Cadw, Visit Wales, and Menter Môn. Figure 4 (below) presents a brief overview of the main stakeholders.

Stakeholder	Specific Explicit Goals	Interest in Tourism	Interest in Heritage	Involvement in the Project
Anglesey County Council		Seen as a vital for economic success	Seen as a costly secondary consideration	- Funding - Supervision - Hosting
Cadw	Conserve Heritage and help people understand and care about it	Not considered	Traditional/official heritage is central to their mission	none
Visit Wales	Tourism team of the Welsh Assembly Government	Primary focus	None	None
Menter Môn	Economic development company	Occasional focus	Central focus of one staff-member	- Funding - Supervision

Figure 4: Summary of primary stakeholders

2.6.1 Anglesey County Council

The Isle of Anglesey County Council (IoACC) plays a leading role in coordinating tourism and has led on destination management planning for the island (IoACC 2012); it does not prioritize heritage tourism. For example its Anglesey Corporate Plan 2013-2017 doesn't include "heritage tourism" at all. Here, "heritage" and "tourism" figure separately (Anglesey Corporate Plan 2013-2017). In the section called Economic Development, the council promises to boost tourism by promoting the island's "distinctive strengths," but there is no mention of heritage. Instead "heritage" occurs three times in the section called Leisure and Library Provision. Here the council promises to "explore new management options" for heritage sites,

boost visitor numbers – and still cut the costs of all leisure services to the council by 60 percent (Anglesey Corporate Plan 2013-2017.) The council doesn't envision heritage as a tourism resource but as a leisure activity that costs it too much. Though IoACC has been an active partner in the Mona Antiqua project for over 10 years, "heritage tourism" does not figure in its published plans.

IoACC has a history of political in-fighting that has hampered its efforts at strategy and leadership in all areas, including heritage tourism promotion (BBC News online, 2011). In 2009, after a study found that the island was poorly managed due to warring council factions, the Welsh Assembly Government appointed an interim managing director to oversee it (WalesOnline 2011). In 2011, Local Government minister Carl Sargeant went further. He took the unprecedented step of removing the council's executive powers and putting it under the direct control of appointed commissioners (BBC Online, 2011). Speaking in the Welsh Senedd, Sargent said:

Too many Anglesey councillors are still more concerned with pursuing their own advantage than with meeting the needs of Anglesey's citizens. This is not democracy – it is the politics of the playground.

The island faces some of the most severe challenges of any council in Wales and this neglect cannot continue. I believe that councillors who have operated irresponsibly despite numerous independent inquiries, Ombudsman cases, critical audit reports and a ministerial intervention, have been given enough chances to mend their ways. (WalesOnline 2011)

2.6.2 Cadw

Cadw is the national historic environment service of the Welsh Government,

"working for an accessible and well-protected historic environment for Wales"

(Cadw website 2015a). According to its website, it has three functions:

We conserve Wales's heritage

We help people understand and care about their history

We help sustain the distinctive character of Wales (Cadw website 2015b).

None of these mentions tourism. One might argue that the second, helping people understand history, includes tourists in the category of “people,” but Cadw chooses the pronoun “their” in this goal. Since Cadw’s remit focuses on artefacts pertinent to *Welsh* history not *all* history, so the “people” here discussed must refer specifically to Welsh people: Cadw helps Welsh people understand their own history. A longer document, “Cadw Priorities 2011-2016,” does mention a wider mission, in collaboration with partners like Visit Wales, “to present a dynamic and authentic image of the heritage and culture of Wales to the world”(Cadw 2011b). “Presenting an image” is not equivalent to promoting heritage tourism. On the whole, Cadw’s mission focuses on conservation of physical sites and education within Wales (Cadw 2011b), and it leaves promoting tourism – especially using digital media to promote tourism -- to the Welsh Government’s tourism agency, Visit Wales. For example, Cadw’s website now contains several pages on its £19 million national Heritage Tourism Project (Cadw website 2015c). The pages list 13 HTP-funded projects at Cadw sites and 24 external projects, including Mona Antiqua on Anglesey. All 37 projects involve physical restoration and conservation work at monuments across Wales; some also feature new interpretation boards and signage. None of these projects mention websites. Of the 37, only two include any digital media: mobile apps for children that follow cartoon characters through Conwy and Denbigh (Cadw website 2015d).

Regarding Anglesey, Cadw plays a significant role but from a distance. It owns, staffs, and oversees Beaumaris Castle, the island’s most famous heritage landmark, along with Din Lligwy, Bryn Celli Ddu, Barclodiad y Gawres, and Penmon

Priory. Cadw also acts as a named partner in most of the heritage funding arrangements, including the Mona Antiqua HTP (Menter Môn 2011b). However, aside from the staff at Beaumaris Castle, Cadw employs only one other warden in North Wales who oversees all the other properties in the region. Other management and policy functions are administrated from Cardiff and reflect a national focus. Cadw officers do not actively participate in coordinating an island-wide heritage tourism strategy for Anglesey.

2.6.3 Visit Wales

Visit Wales is the tourism team of the Welsh Assembly Government. Its mandate is to promote tourism throughout Wales. According to its website, “Visit Wales' principal role is to provide leadership and strategic direction to the tourism industry in Wales” (Visit Wales 2015a). Within this broader overall strategy Visit Wales identifies five primary areas of responsibility:

- improve competitiveness of Welsh tourism
- raise the profile and status of the industry and increase recognition of its economic performance
- adopt a customer-focused approach which understands and responds to market needs
- improve understanding of the roles and responsibilities of the different organisations involved in tourism and identify opportunities for effective partnership working
- promote growth in tourism through sustainable means.

Four of these five strategic objectives centre on marketing activities – either externally to draw more tourists to Wales or internally to gain greater recognition of the importance of tourism to the region and economy. The one additional responsibility (“improve understanding of the roles and responsibilities”) does suggest that Visit Wales could play an active part in coordinating tourism activities

within regions or counties such as Anglesey. However, with limited resources and a nationwide remit, Visit Wales does not have an active role in the orchestrating the activities and organisations on Anglesey.

2.6.4 Menter Môn

Primarily an economic development company founded in 1996 to administer European development funds, Menter Môn is the only agency with a full-time employee devoted to island-wide heritage matters. Its heritage officer has tried to take the lead in creating and funding an island-wide strategy to promote heritage and harness its tourism potential. In 2003, community-owned Menter Môn commissioned the *Mona Antiqua* report by the Parkin consultancy, which concluded that the island was ripe for heritage tourism development (Parkin et al, 2003). Based on the findings from that report, Menter Môn raised £900,000 in funding for the island-wide *Mona Antiqua* Heritage Tourism Project (Menter Môn 2011b; Daily Post, 2012), of which “Anglesey: A Bridge Through Time” plays a key part. In addition to *Mona Antiqua*, Menter Môn has worked to conserve minor sites that Cadw overlooks, finding funds and community support for excavation, enhancement, protection, and interpretation work for “orphan” sites like Aberlleiniog Castle, Amlwch/Parys Mountain, Swtan, and Llys Rhosyr (Menter Môn 2014).

Entirely grant-funded, Menter Môn is sometimes hampered by its dependence on grant cycles and outside support. Projects must be time-limited and self-perpetuating; Menter Môn cannot accommodate long-term commitments. For example, when Menter Môn finds funding to renovate a heritage site, it must also find or found a community group to hand over supervision of the site upon

completion. When no such group materialises, as is the case with Llys Rhosyr, Menter Môn undertakes a leasing arrangement with the council. These sorts of provisions leave some heritage sites in a state of perpetual limbo and leave the group open to accusations of short-term thinking and disjointed management.

In addition, at the start of this current research project, Menter Môn’s approach to promoting heritage tourism demonstrated an “insider bias,” the opposite of a consumer-focused approach. For example, as late as 2012, the group was using the project name *Mona Antiqua* (a reference to a 1732 history of the island) as the headline for many of its heritage brochures and posters, despite the fact that to non-island residents the phrase was likely meaningless (Menter Môn 2012). In addition, up to 2010, one of Menter Môn’s main heritage heritage promotion strategies was to try to sell the guidebook *Mon Mam Cymru* (see photo in Figure 5, below). Not only does the book’s cover feature a deformed human face, its

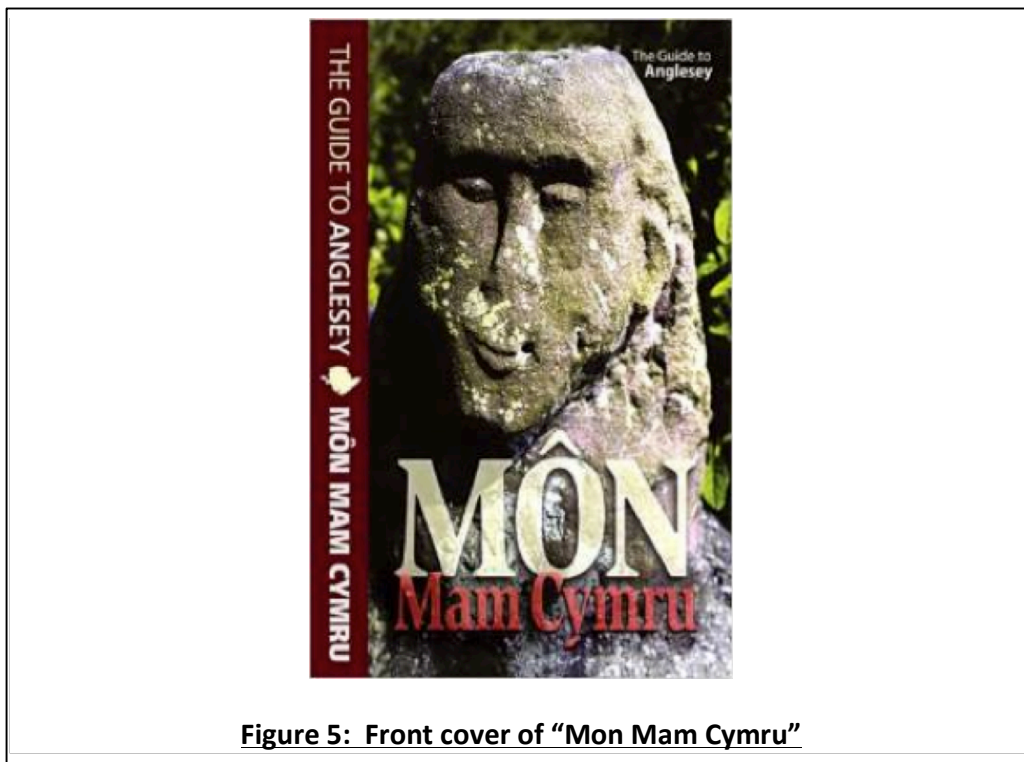


Figure 5: Front cover of “Mon Mam Cymru”

title appears in Welsh only on the cover. The majority of Anglesey tourists, however, are not Welsh-speaking. This strategy is not consumer-centred.

2.7 Stakeholder Collaboration and Cooperation

Tourism is always a fragmented industry. Writing about the inherent complexity of the industry in his 1990 book, international tourism expert David Edgell declared, “There is no other industry in the economy that is linked to so many diverse and different kinds of products and services as is the tourism industry” (1990: 7). To accommodate this complexity, tourism scholars have established a need for coordination in tourism planning (Hall 2000; Hall 1994; Roberts and Simpson 1999). Coordination in planning has been linked to sustainable tourism development (Bramwell and Lane 1999; Hall 2000; Selin 1999; Timothy 1999). According to Timothy, coordinated tourism planning can lead to sustainable development only when there is cooperation on four levels: between government agencies, between levels of administration, between same-level polities, and between public and private interests (Timothy, 1999). On Anglesey, for example, sustainable tourism development would demand intentional, continual “interjurisdictional” cooperation (Nunn and Rosentraub, 1997) between national, regional, and local government agencies, plus effective working with Third Sector organisations like Menter Môn, as well as continuous outreach to private interests and industry groups.

In addition, sustainable development for *heritage tourism* is further complicated and/or undermined by an established ideological and institutional split between heritage and tourism interests. For example, Nuryanti showed that conflict arises in heritage tourism development because conservationists often regard

tourism initiatives as destructive and profit-motivated (Nuryanti 1996). Garrod and Fyall established in 2000 that a “curatorial approach” – in which heritage managers distance themselves from the tourism business, concentrating on conservation and education – pervades the field and impedes sustainable development (Garrod and Fyall 2000). To address this chasm and help tourism to fund the high cost of heritage preservation, several theorists have promoted a long-term process of heritage-tourism stakeholder engagement built on clear communications channels (Aas et al 2005; Peters 1999), balance between conservation and access, and an equitable distribution of income (Aas et al 2005; Peters 1999; Russo, Boniface and Shoval 2001).

Collaboration and cooperation are proven necessities for sustainable tourism development, but little is known about how such cooperation transpires, especially on the local level, between individuals. In a 2011 study, Pietro Beritelli augmented known cooperation behaviour studies within and among institutions with a study of 42 individual actors within a local tourism destination community (Beritelli, 2011). In line with other research into cooperative behaviour, Beritelli discusses how six main theories of cooperative behaviour contribute to two approaches to cooperation studies (see Figure 6, below). Literature in that field ties a more formal, contract-based cooperation (emphasizing professional formal relations and economic dependencies) to national-level institutions and administrative and governing bodies, while informal, relation-based cooperation (emphasizing mutual trust and commitment) is more often demonstrated in regions and communities. After interviewing 42 actors in a local tourism destination community, Beritelli analysed

their opinions and actions and concluded that “[C]ooperative behavior among actors and stakeholder groups in tourism destinations is an interpersonal business,” based almost entirely on informal relations (Beritelli, 2011). It does not follow rational theoretic principles or logic based on economic gain; cooperative actors “exhibit kinship” less by exchange of information than by intense communication through clear channels.

Cooperation results from long-term interdependencies among actors, which can lead to “sympathy” (finding the other likeable) (Beritelli, 2011).

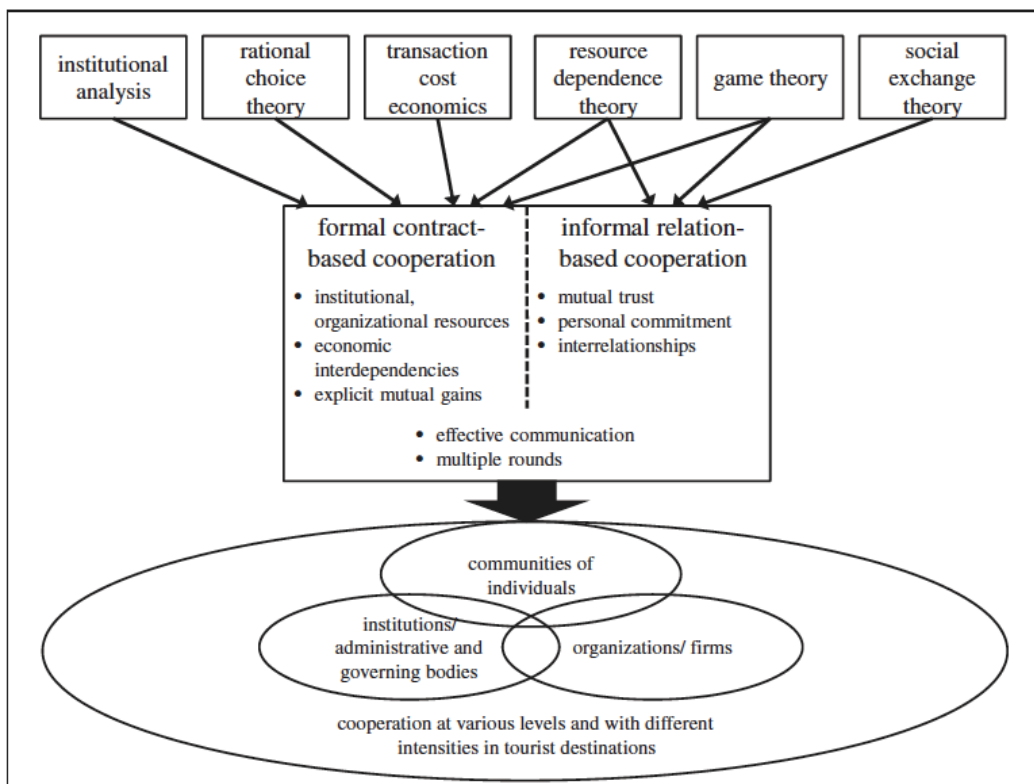


Figure 6: Theories, Cooperation Approaches, and the Application to Destinations (Biratelli, 2011)

2.8 Conclusion

The Welsh island of Anglesey is rich in heritage and therefore in heritage tourism potential. However this potential is not being utilised, due to fragmentation across agencies and lack of local and national coordination. While some stakeholders like Cadw focus almost exclusively on conserving built heritage, others like IoACC and Visit Wales focus on tourism to the exclusion of heritage. While Cadw claims to be developing a national heritage tourism strategy via its HTP projects, it clearly lacks the digital media savvy and customer-centered marketing approach that Visit Wales has embraced for national tourism. Indeed, if the two agencies could work together, a dynamic (and lucrative) national heritage tourism strategy might emerge. However experts within both heritage and tourism have demonstrated that, while cooperation between government agencies is vital to sustainable tourism development, divisions remain.

On the local level, one can see a marked divide between heritage and tourism agendas, even within the council, as demonstrated in its Anglesey Corporate Plan 2013-17. Other local stakeholders such as heritage groups and tourism industry associations stay on opposite sides of the divide, with only Menter Môn venturing into the middle ground. While that group has brokered important heritage tourism initiatives and worked to conserve some sites, it is often hampered by short-term thinking due to its dependence on grant funding. Within this constellation of influences, cooperation in planning is rare, and then determined not by formal, contract-based relations or by rational economic concerns, but by the sort of interdependent, “kinship” relationships described by Biratelli: “Cooperation results

from long-term interdependencies among actors, which can lead to “sympathy” (finding the other likeable).” (Biratelli, 2011). These “who you know” relationships reinforce the “how it’s always been done” inertia endemic to rural local governments – unlikely to be shaken by outsiders or by new ideas in heritage interpretation and expression.

Fragmentation across agencies and lack of coordination has hampered development of Anglesey's heritage tourism potential. While the very concept of "heritage" has evolved over the last decades across the field (see Chapter 3) and new innovative participatory approaches have sprung up within more functional institutions and locales (see Chapter 4), change has come slowly to local areas that lack coordination among agencies.

Chapter 3: State of the Art – Heritage Evolves

3.1 Introduction

For consumers, practitioners, students and theorists, the field of heritage has changed dramatically over the past 50 years – moving from a purely physical, monumental understanding of “heritage” as validated “top down” by experts, to a broader conception of heritage as a “bottom up” social process, open to all individuals. Beginning in the 1990s, influential heritage scholars and practitioners sought to expand the definition of – and the attendant funding structures around – heritage, to move beyond “Western”-centric monuments and artefacts, in order to extend protection to “intangible” heritage practices. This chapter will summarize recent, current, and evolving thinking about the theory and practice of heritage. In so doing, it presents the broader heritage context for the present research project “Anglesey: A Bridge Through Time.”

In the 20th century, official public heritage focused almost exclusively on preserving material artefacts and physical sites determined significant by national or international bodies. The United Nations’ first heritage-related convention, passed in 1954, protects “cultural property” during warfare. That resolution recognises “that cultural property has suffered grave damage during recent armed conflicts and that, by reason of the developments in the technique of warfare, it is in increasing danger of destruction” (UNESCO, 2003). Its definition of “cultural property” includes only material artefacts and sites:

movable or immovable property of great importance to the cultural heritage of every people, such as monuments of architecture, art or history, whether

religious or secular; archaeological sites; groups of buildings which, as a whole, are of historical or artistic interest; works of art; manuscripts, books and other objects of artistic, historical or archaeological interest; as well as scientific collections and important collections of books or archives or of reproductions of the property defined above (UNESCO, 2003).

In the UK, the national government first moved to protect historic buildings in 1953 with the passing of the “Historic Buildings and Ancient Monuments Act 1953”. In 1979, it extended and clarified this further to offer broader protection to ancient monuments with the passing of the “Ancient Monuments and Archaeological Areas Act 1979”. Again, as with the UNESCO act, the extent of any “cultural property” was limited exclusively to *physical* locations, spaces, artefacts, and machines.

The word “heritage” first appears in British law in 1980, when The National Heritage Act 1980 established the National Heritage Memorial Fund, which uses government funds to purchase “at risk” artefacts, and clarified rules about sharing artefacts and using them to pay property taxes (National Heritage Act 1980). Subsequent acts pertained to the founding and governance of museums and their collections of artefacts (National Heritage Act 1983 and 1985).

This traditional focus on monumentality and authenticity, on physical sites and objects, is preserved today in the official definition used by English Heritage (the organisation responsible for care and maintenance of historic buildings, monuments and sites in England) for the term “cultural heritage”: “Inherited assets which people identify and value as a reflection and expression of their evolving knowledge, beliefs and traditions, and of their understanding of the beliefs and traditions of others” (English Heritage, 2015). While that definition acknowledges flux and change

inherent in “evolving knowledge,” it still directly equates “heritage” with material “assets.” In *Heritage: Management, Interpretation, Identity*, a 2003 textbook routinely used in Heritage Studies today, geographer Peter Howard retains this object-based focus; he defines heritage as “anything that someone wishes to conserve or collect, and to pass on to future generations” (Howard).

For Howard, an individual can choose to name personal objects “heritage” and these objects then take on a new importance. This is quite different from the way that English Heritage and other funding agencies conceptualise “heritage”. For the latter, objects gain heritage status only after an authority or group with decision-making power has so decided. Thus, in these cases, labelling some objects as “cultural heritage” indicates an obscured decision-making process, wherein unnamed individuals choose which cultural artefacts deserve preservation.

Interestingly, over the past twenty years the discourse around heritage in general, and cultural heritage in particular, has moved quite radically. In fact, the definitions used by such official groups as English Heritage and the UK government actually ignores twenty years of discourse that has sought to shift emphasis from heritage-as-objects to heritage-as-universal-human-process.

3.2 Preservation vs. Conservation

Over the course of the 20th century, tourism gained mass popularity and with it came a profusion of new museums and an increased public interest in heritage sites, which troubled some scholars.

In the 1980s, the heritage debate focused on issues of preservation vs. conservation. In British usage, “preservation” denotes actions related to maintaining an object as it was discovered: “preserve as found” is a key phrase (Carr, 2013). “Conservation” is a

broader management approach that allows for development and change; for example a conservationist heritage manager might carefully preserve a historic building's façade while allowing for the addition of visitor toilets and a café (Mynors, 1984; Larkham, 1984). In many domains throughout the 1980s and 1990s there was a movement from pure preservation to broader conservation – for example, a similar shift can be seen in terms of managing natural environments (Sheail, Treweek and Mountford, 1997).

In his influential *The Past Is a Foreign Country* (1985), geographer and historian David Lowenthal argued for a purely preservationist approach, eschewing heritage tourism, which, he argued, contaminates historic sites. Whereas in past decades, only a small, well-educated elite could appreciate ruins and monuments, now that “heritage interpreters” rewrite history into an attractive heritage tourism package, increasing numbers of visitors may destroy artefacts and the precious historical record, Lowenthal maintained. Popular heritage seeks to obscure actual history. “By changing the relics and records of former times, we change ourselves as well: the revised past in turn alters our own identity.” (Lowenthal 1985, p411). In fact, Lowenthal goes so far as to even suggest that the act of preservation *itself* may be too encroaching: “Preservative action often involved prolonged disturbance subversive of display. Like modern airports, medieval cathedrals seem forever wrapped in scaffolding and builders’ rubble, detracting from their flavour of antiquity. Protection can debase the ambience of antiquities even when their fabric remains intact.” (Lowenthal 1985, p276).

Into this debate, the English academic Robert Hewison brought questions about the role and purpose of heritage, particularly within the UK. In the late 1980s,

he argued that museums, once focused on preserving artefacts, had largely become tourist-focused heritage centres, designed to provide entertainment more than accurate historical facts. With the publication of the book having the same title, Hewison coined the phrase 'heritage industry' to describe the commodification of heritage, a process whereby a small group of cultural elites manipulate artefacts and funders in order to create profit and/or shape identities, including national identity, especially a middle-class nostalgia for a lost "golden age" in Britain (Hewison, 1989).

3.3 Heritage and Nationalism in Wales

Within Wales this debate took on added dimensions as the nation struggled to define itself. In his 1995 essay "Heritage as National Identity," Swansea geographer Prys Gruffudd begins by attacking Hewison's modernist insistence on a "true history": "[In] asserting the importance, indeed existence, of a 'true past', Hewison failed to engage with the notion that all national pasts are essentially fantasies" (Gruffudd, 1995). In Wales, according to Gruffudd, the national past was constructed in the early 20th century, primarily in opposition to urban English industrialism. Incomers took a preservationist approach to Wales and sought to preserve the Welsh countryside (as is) as a picturesque British natural resource, but Welsh nationalists took a conservationist view: only via using the land to its utmost can the rural Welsh lifestyle (and the Welsh language and culture that depend on it) survive.

According to Gruffudd, in the first half of the 20th century, influential Welsh nationalists idealised and "generally extolled the life of the *gwerin*— the common people of Wales, usually Welsh-speaking, religious and rural." (Gruffudd, 1996, p413). The *gwerin* (rural craftspeople) were seen as morally upright preservers of

both the Welsh language and a uniquely Welsh craft culture. To enshrine the *gwerin* culture as the centre of Welsh identity, a group of historians and scholars from the Department of Archaeology in the National Museum of Wales created St Fagans, the national folk museum, in 1946. Its first keeper-in-charge (and later curator) was the renowned Welsh scholar and poet Iorwerth Peate (1901-1982) who modelled the concept on a pioneering Swedish folk museum (Skansen) near Stockholm. In fact, this preservationist approach to the past was part of the wider cultural movement that looked back on the craft- and folk-history of Wales with a nostalgic reverence. While the museum helped to set Wales apart as a nation, separate from the industrialized colonial powers, it also encoded stereotypes about the tiny emerging nation.

Whilst presenting itself as apolitical, therefore, the project that underlay the folk museum was deeply ideological in its understanding and use of the past. Although it professed 'authenticity' in its detailed empirical construction of knowledge about rural Wales, it nonetheless contributed to the remaking and reactivation of certain myths about Wales. (Gruffudd, 1995)

For Gruffudd the story of St Fagans stands as a cautionary tale. In line with Hewison, he critiques the museum's nostalgic patina, but unlike Hewison, Gruffudd also takes issue with any modernist attempt to codify a single hegemonic view, to hide the fact that "heritage" is inherently political. Kevin Walsh, in his "The Representation of the Past: Museums and Heritage in the Post-Modern World" makes a similar point when he writes: "The aim of heritage would appear to be to select only that which pleases the sensibilities of a narrow group of people. Those who decide what is worthy of preservation and how it should be preserved are basically deciding what is worth remembering." (Walsh, 1992, P 79). Gathercole and Lowenthal agree that the stakes are high: "The past is everywhere a battleground of

rival attachments. In their discovering, correcting, elaborating, inverting, and celebrating their histories, competing groups struggle to validate present goals by appealing to continuity with, or inheritance from, ancestral and other precursors. The politics of the past is no trivial game; it is an integral part of every peoples' earnest search for a heritage essential to autonomy and identity" (Gathercole and Lowenthal, 1994, p. 302)

Like Wales, many governments devised politicized national heritages in the 20th century. According to historian Rodney Harrison, the industry expanded as the century passed, in reaction to economic and social forces like globalisation, migration, and transnationalism, which undermined the power of the nation-state. Government-funded heritage grew then in part as an effort to develop nationalist narratives that would help to undergird state controls (Harrison, 2009).

3.4 Postmodernism and Multiculturalism

In the 1990s, several universities in the UK founded interdisciplinary programmes in Heritage Studies, combining insights from geography, history, archaeology, art history, and tourism studies. Postmodern and poststructuralist theory and multiculturalist ethics began to influence heritage commentary. The scholarly debate moved to questions about authority, identity, and inclusion.

In 1995, UNESCO heritage consultant Frans F.J. Schouten argued that older notions of heritage rely on a concept of an objective historical reality, which is impossible to sustain. All heritage objects are transformed by the subjective gaze of the viewer. Heritage is a process, the interaction of the visitor with the artefact, with interpretation as the intermediary. "Visitors are not primarily looking for scientific historical evidence. . . . [They] are looking for an experience, a new reality based on

the tangible remains of the past. . . .Heritage is history processed through mythology, ideology, nationalism, local pride, romantic ideas or just plain marketing, into a commodity.” (Schouten 1995, p. 21). But this commodity can serve an important purpose, argues Schouten. It can engage visitors in a valuable process; it is its own historical reality.

Theorist Raphael Samuel also took issue with Hewison. Where the latter saw a heritage industry with a primarily nostalgic, conservative agenda, Samuel highlighted heritage attractions that were portraying a more complex, class-inclusive past. Even English country houses featured servants’ stories of life “below the stairs.” Such interpretation, focusing on everyday life, gave working-class visitors points of access to their own history and engaged them in further investigation, initiating their interaction with heritage as a process. According to Samuel, such a process can lead to greater, more diverse local community activism around heritage and then potentially, to enhanced multiculturalism and social justice transformation (Samuel, 1994).

Along this line, some commentators (Merriman 1991; Graham 2002) linked heritage participation to sociologist Pierre Bourdieu’s concept of Cultural Capital (Bourdieu and Passeron 1990). For Bourdieu, all the knowledge and skills people acquire amount to a kind of social currency, which can be used and traded like economic capital. Similarly, via heritage participation, whether a museum visit or a re-enactment of a group ritual, people forge connections between themselves and other places and times and often earn social prestige or credentials. Both in the academy and in field, this idea of heritage as a social process, something that all people create “from the bottom up” – as opposed to interpretation crafted by

experts and imposed “top-down” – gained traction throughout the 1990s and into the 21st century.

3.5 Intangible Heritage

Around the turn of the new century, with the tide of globalised mass media and hegemonic entertainment culture, concern rose to protect and preserve endangered minority cultures worldwide. At the same time, some heritage scholars and practitioners sought to expand the definition of – and the attendant funding structures around – heritage, to move beyond “Western”-centric monuments and artefacts, in order to extend protection to “intangible” heritage: cultural practices, languages, skills, performing arts, oral traditions, crafts, medical and culinary practices. As a result in 2003, UNESCO (the United Nations Educational, Scientific and Cultural Organization) adopted its landmark treaty called “Convention for the Safeguarding of the Intangible Cultural Heritage,” which has now been ratified by 155 nations. The convention codified the idea of heritage as a social process:

This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity. (UNESCO 2003)

Though some preservation funding accompanied the Convention framework, critics queried how new preservation drives would be funded (Kurin 2004), administrated (Deacon et al. 2004) and pursued institutionally (Kurin 2004).

In 2005, the Council of Europe went even farther than UNESCO, with the Framework Convention on the Value of Cultural Heritage to Society. Known as the Faro Convention, the document soundly reinforces both the heritage-as-a-process idea and the goal of universal participation. “Recognising the need to put people

and human values at the centre of an enlarged and cross-disciplinary concept of cultural heritage,” and “convinced of the need to involve everyone in society in the ongoing process of defining and managing cultural heritage,” the Council urged member states “to foster an economic and social climate which supports participation in cultural heritage activities,” including those of minority or immigrant communities (Council of Europe, 2005). An aspirational statement, the Faro convention urges all European heritage practitioners to broaden programmes and interpretation to include more communities and more “everyday” practices.

Critics maintain that such conventions have accomplished little in terms of preserving endangered cultures. Chiara DeCesari, for example, argues that by adopting the language of liberal multiculturalism, UNESCO policies affirm dangerous cultural differences and power asymmetries. In effect, World Heritage programmes also strengthen the controls that nations exert over heritage discourses and sometimes silence local or minority heritages (DeCesari, 2010). As a case study she offers experience as a UNESCO consultant to heritage projects in Palestine that cannot accede to the canonical World Heritage list because their host nation, the proto-state of Palestine, cannot legally nominate them. UNESCO privileges nation-states, DeCesari argues, in its quest to create a permanent, standardised worldwide structure for heritage conservation; in addition, she argues, the worldwide drive to accede to UNESCO’s World Heritage Site list necessarily supports institution-building that further encodes specialist expertise, state controls, and capitalist values in a commodification of heritage.

3.6 Critical Heritage Studies

“There is, really, no such thing as heritage,” theorist Laurajane Smith declares at the start of her landmark *The Uses of Heritage* (2006; p. 11). She means that heritage is not a *thing*, nor is it a quality somehow inherent in objects like artefacts or monuments. In fact, she might say, there is no “tangible heritage,” only the intangible – *values* that humans wrap around objects. All heritage is a process, an inherently political practice that performs the cultural work of the present (Smith, 2006).

According to Smith, the history of modern Western heritage has been dominated by, in her phrase, the Authorised (or Authorising) Heritage Discourse, or AHD. Smith argues that historically the AHD focused on material places and artefacts with “inherent” heritage value, thereby prompting the creation of heritage canons (such as the UNESCO list of World Heritage sites), and privileging particular practices, especially those of heritage professionals and the state. The AHD “normalises” a set of ideas and assumptions about what heritage is – tangible, aesthetically pleasing, monumental, bound up in objects that must be managed by professional experts. Via case studies, Smith demonstrates how the AHD dominates funding structures, so that official heritage still tends to exclude “other” heritages, including minority practices, intangible heritage, and “everyday” or working-class heritage. For example, she shows that most middle-class visitors to a manor house in England accept the discourse authorised by the presentation; their experience is pleasurable because it reinforces comfortable notions of class and national identity. At other sites, however, users may actively contest the discourse authorized by the

presentation and create heritage processes that engage or deconstruct it (Smith, 2006).

In 2012, more than 500 museum directors and heritage scholars from across the world gathered for “Re/Theorizing Heritage,” the five-day inaugural conference of the Critical Heritage Studies Association in Gothenburg, Sweden. The fledging association issued a manifesto, written by Laurajane Smith and Gary Campbell. It called for an overhaul of heritage and heritage studies, a deep re-theorising to throw off the mantle of the AHD:

Heritage is, as much as anything, a political act, and we need to ask serious questions about the power relations that ‘heritage’ has all too often been invoked to sustain. Nationalism, imperialism, colonialism, cultural elitism, Western triumphalism, social exclusion based on class and ethnicity, and the fetishising of expert knowledge have all exerted strong influences on how heritage is used, defined and managed. We argue that a truly critical heritage studies will ask many uncomfortable questions of traditional ways of thinking about and doing heritage, and that the interests of the marginalised and excluded will be brought to the forefront when posing these questions. (Campbell and Smith 2012)

Critical heritage studies, therefore, aims to examine how these discourses play out via funding structures to impact heritage projects on the local, national, and international level.

Such a manifesto, however, also begs two questions: 1) What now of the old “heritage” – should AHD-privileged sites now be defunded and their artefacts discarded? 2) How exactly does one execute this new vision? The artefacts maintained in these AHD-privileged sites continue to hold value for communities and the state, and indeed traditional heritage values still hold sway in most funding structures and heritage agencies. At the same time, however, as we will see below and in following chapters, some heritage have mounted experiments that embody

the new critical perspective by investigating traditional heritage values, incorporating new kinds of participatory engagement, and/or safeguard marginalised or intangible practices.

3.7 Participatory and Community-Based Heritage

Over the closing decades of the 20th century, as governments and institutions sought to integrate a new multiculturalism and to reach wider audiences for cultural programs, an ethic of local participation and community engagement developed and spread throughout the museums and heritage sector. Indeed, beyond their traditional educational function, museums and heritage sites were seen as having a role in government drives for broader social inclusion and community outreach. While not often defined or interrogated, “community engagement” has become, in some areas, an integrated part of cultural resource management. Requirements for proof of local community engagement are now routinely included in funding calls (Watson and Waterton, 2010).

“Furthermore, if a local museum is not connected with its community the rationale for the museum may come into question,” writes museum studies professor Elizabeth Crooke (2010). “Moving from the position in UK museums where the creation of the post of community outreach officer was fairly innovative, the integration of the community agenda at every level within the museum is now essential.” (Crooke, 2010). Museums and heritage sites are now challenged to explore and reconsider all facets, from the mission statement to modes of display and event programming, as they relate to community needs. While such efforts can result in improved connection with local groups, they can also amount to exercises in window-dressing and box-ticking that can be seen as tokenistic and superficial (Tlili,

2008; Watson and Waterton, 2010). In response, local or minority communities can grow mistrustful and resentful, endangering the sustainability of projects and relationships (Perkin, 2010).

3.8 Engagement

Like “heritage,” “community” is a fluid concept that can be defined and employed in myriad ways for political ends (Crooke, 2010). Together, the terms can serve to define each other, as “heritage” can be used to build group identity, and communities can construct their own heritage processes. Together, “community” and “heritage” create powerful myths: “Their malleability, twinned with their appeal, allows the associations to be remade in a myriad of situations,” writes Crooke (2010, p. 17). “Both the community concept and the idea of heritage become intertwined with the lived experience and expression of community. The community group is defined and justified because of its heritage and that heritage is fostered and sustained by the creation of community” (2010 p.17). Practitioners in community heritage therefore must continuously negotiate several “slippery” variables with intersecting, mutable, and powerful meanings. Further such negotiations must be articulated, interrogated, and assessed by funders, local authorities, national governments, and interest groups, each with their own agenda.

Researchers, museums and heritage institutions seeking meaningful community engagement must take a long-term view, building participatory methods and dialogical community relationships over time that cannot be understood via simple quantitative measurements like “visitor numbers.” According to heritage designer Corinne Perkin, participatory practitioners must overcome barriers, both real and perceived, that prevent potential visitors and participants from engaging;

they must also reevaluate and actively seek to disassemble power imbalances inherent in expert/non-expert dichotomies (Perkin, 2010, p. 109). “This kind of community-driven engagement has the potential to create meaningful ongoing collaborations,” she writes, but such projects are also “rife with politics, differing agendas, and visions for the future” (Perkin, p. 108).

3.9 Participatory Heritage and Museology

An exhibition curator, Perkin created a model of egalitarian community heritage engagement while working as a project manager on an Australian local heritage strategy that balanced the needs, agendas, and power relations of an art museum, a local government, and 28 heritage groups (Perkin, 2010). As opposed to short-term collaborations that arise from “expert”-driven, top-down agendas, she advises long-term relationship-building from which mutual agendas can provide for long-term success and sustainability (Perkin, p.120). Under this kind of approach, however, local institutions must forego dependence on short-term quantifiable goals, in favour of longer-term, qualitative improvements, which can be harder to ascertain. Additionally, institutions must cede a certain degree of determinative power and outcome control, which can jeopardize their ability to report to larger funding agencies.

Across the cultural sector, an influential work among practitioners is Nina Simon’s *The Participatory Museum* (Simon 2010). Both a philosophical manifesto and a how-to manual for exhibit curators, the book foregrounds the idea that, in order to be relevant and therefore to survive in a competitive environment, a cultural institution must become actively audience-centred. It is no longer a static place for preserving objects but a dynamic staging zone for cultural practice. “Rather than

delivering the same content to everyone, a participatory institution collects and shares diverse, personalized, and changing content co-produced with visitors,” writes Simon. “It showcases the diverse creations and opinions of non-experts. . . . Instead of being ‘about’ something or ‘for’ someone, participatory institutions are created and managed ‘with’ visitors” (Simon, 2010). While she focuses primarily on encouraging and helping curators design in-house exhibitions, Simon advises a holistic approach that integrates online community-building with face-to-face events and exhibitions. She credits Web 2.0 for raising audience expectations for participation and involvement, and Simon argues for a museology that embraces and spans multiple interactive platforms.

3.10 Conclusion

For consumers, practitioners, students and theorists, the field of heritage has changed dramatically over the past 50 years. It has broadened, moving from a physical, monumental understanding of “heritage” as validated “top down” by experts, to a larger conception of heritage that now sometimes includes non-“Western” narratives, intangible heritages, and everyday heritage as a “bottom up” social process, open to all individuals. Fostered by the somewhat concurrent development of participatory media, some heritage practitioners within the last decade have sought to use these new media forms to invite in widescale participation. This recent trend will be addressed in the next chapter of the present thesis.

Chapter 4: Participatory, Crowd-sourced, and Independent Public Digital Heritage

4.1 Introduction

This chapter discusses the “state of the art” of participatory digital media for heritage, part of the context for the current project. It begins with an overview of theory relating to participation, participatory design, participatory heritage, and participatory media cultures in general. Then the chapter presents a three-rubric outline of recent relevant participatory heritage projects: those coming from academic practitioners (in Heritage Studies or Human-Computer Interaction), those arising in the museum sector, and those projects created outside heritage institutions. While they may share superficial similarities in appearance or public call, the projects’ different origins can affect approaches to content, authority, and control -- differences that reflect at their core divergent understandings of the very concept “heritage.” Overall, traditional power imbalances remain unquestioned in institutional crowdsourcing efforts, but academics, archivists and independent heritage practitioners are using the new participatory platforms toward their democratizing potential.

4.2 Participation

What is participation? The Oxford English Dictionary defines it as the action of forming part of something or the sharing of something. (OED). In fields such as community development, health care, and town planning, “participation” refers to a situation in which non-experts take part in any facet of project development, from

planning, through goal-setting to distribution; lay people or consumers can express opinions and can exert some degree of influence over decision-making.

Discussing participatory learning, sustainability theorist Jules Pretty identifies two “overlapping” motivations for opening planning processes to wider participation:

One views participation as a means to increase efficiency, the central notion being that if people are involved, then they are more likely to agree with and support the new development and service. The other sees participation as a fundamental right, in which the main aim is to initiate mobilization for collective action, empowerment and institution building. (Pretty 1995)

These two motivations – efficiency and empowerment – helped to drive the development of the current research project. In addition, a third motivation, suggested by recent trends in participatory media, further argued for participation: the great value – in social presence, data gathering, and task completion – that volunteer effort can add to a digital project (as we will see through many examples discussed later in this chapter). For further specifics regarding specific definitions of “participation” as they played out in the current research project, see “Participation and the Theoretical Framework” in Chapter 5.

To various degrees, participation in planning implies some degree of influence or power-sharing with regard to decision-making. In 1969, S. R. Arnstein created a well-known ladder typology, with eight “rungs” that depict citizens’ power to determine end products (Arnstein 1969), on a scale from “manipulation” (non-participation) to “citizen control.” In response to this “ladder of participation,” Rocha created a “ladder of empowerment,” which focuses less on the process than on the increased agency of people involved in the process. Rocha’s ladder of empowerment

measures community development on a scale that includes respectful listening and libratory dialogue that leads to strategies for change. As readers will see later in this chapter, commentators have also developed similar typologies for heritage crowdsourcing efforts, which measure each as it relates to participant agency.

In their book *Disentangling Participation* (2014), Bratteteig and Wagner warn against judging participation projects on a two-dimensional continuum, such as a ladder:

Participation is a process with many dimensions, including the purpose or goal, the scope or ambition, the methods and processes, as well as the power experiences of the participants . . . Hence, the ideal of ‘full participation’ cannot be the one and only measure of how participatory a project has been. (Bratteteig and Wagner 2014)

For example, they posit other questions to consider (which cannot be plotted along a two-dimensional scale), such as: Who was invited to participate and why? In what choices were participants involved? How participatory were the design results?

4.3 Participatory Design

Questions relating to agency (that of both participant and designer) and inclusion are especially important in participatory design, in which “designers are expected to involve future users in all stages of the design process and to share power with them” (Bratteteig and Wagner, page 6). Even where a strong commitment to power-sharing exists, hidden imbalances can complicate the already complex design process. Responsible practitioners of participatory design complete detailed analyses of power structures and decision processes, trying to balance inclusion policies and dissect decision-making dynamics. Such a focus on user agency, however, can backfire. This emphasis on participation dynamics can serve to mask

the agency of the problem-setters, the designers and researchers who configure the process and interpret the results (Vines et al 2013).

4.4 Participatory Heritage

Unlike Participatory Design, which focuses primarily on power dynamics within the planning and structural phases of projects, Participatory Heritage describes projects where the “participation” is primarily accomplished by end users; design and planning phases are more controlled and less transparent. While stakeholders may be consulted during development, the project itself – the end result – is what is judged as “participatory”: Do end users engage with the questions posed? Do they use the tools proffered to share opinions or create content? As we shall see in the projects analysed in this chapter, many of which inspired the current PhD project, the goal was to invent new ways to involve a growing number of participants in new heritage discourses; those “new ways” may have been the product of a single researcher or a small group. Whether in consultation with stakeholders or not, they were not always the result of wide circles of intentional power-sharing.

4.5 Participatory Cultures

With the rise in the 21st century of so-called Web 2.0, the larger culture has been undergoing a paradigm shift in cultural production (O’Reilly 2005). While participatory cultures are not a new phenomenon (witness amateur literary and historical societies), new web applications and online services that enable mass (and largely free) information-sharing, collaboration, content creation and publishing have, over the past 20 years, transformed the face of cultural production, with effects across the cultural spectrum.

From the collaborative encyclopaedia called Wikipedia to question-and-answer fora like Quora and Yahoo Answers, ordinary users have digitized and re-organized human information-sharing on a global scale. Via services like Flickr, YouTube, and SoundCloud they share photos, videos, and audio works. Via Do-It-Yourself websites like Instructables and WikiHow, along with millions of “how to” videos on YouTube, users learn and teach every human skill. Microblogging apps and sites like Twitter and Ushahidi (Hirsch, T., 2011) have enabled far-flung activists to plan, monitor, and publicise social justice movements. At the same time, crowd-sourcing projects like Amazon Mechanical Turk, OpenIDEO, and Userfarm enable users to participate in large-scale research and design for science and industry (Araújo, A.P.F. 2013; Chan, J., Dow, S. & Schunn, C. 2014; Crump, M.J.C., McDonnell, J.V. and Gureckis, T.M. 2013). Worldwide embrace of the Internet has sparked the advent of participatory cultures related to every human endeavour, with each subculture spanning nations and languages. These subcultures then grow and proliferate via social media, as members promote their activities and grow networks that connect new members along interest lines.

According to theorist Henry Jenkins, a participatory culture is one in which “not every member must contribute, but all must believe they are free to contribute when ready and that what they contribute will be appropriately valued” (Jenkins et al 2006:xi). Such cultures feature low barriers to engagement, support for sharing one’s own creations, training for newcomers, and a sense of social connection (Jenkins xi). In such communities, members teach and learn how to produce and share content and together build resources and teams both to conquer problems

and to catalogue data. Media theorist Clay Shirky calls this possible flood of volunteer time devoted to collaborative projects in science, journalism, and knowledge-sharing a “cognitive surplus” with the potential to transform the human knowledge base (Shirky, 2010).

As networked humans build and access participatory cultures that continue to gain traction and authority in fields from business to education to hobbies and crafts, older hierarchies of authority and expertise crumble. While many commentators hail the rise of participatory cultures as pathways to global cultural democracy, others caution that they are not in practice the promised panacea. For example, the Janissary Collective, seven authors affiliated with Indiana University write: “While new media allow ordinary people to directly voice opinions and tell stories in different ways, the perception of (making) a difference creates an illusion of democracy” (Janissary Collective 2012, p. 257). Encouraging behaviour that feels comfortable and familiar, new participatory cultures are very likely to recreate traditional media cultures: members are not so much ‘free to contribute’ as “compelled to contribute in a way that aligns with dominant norms” (Janissary, p. 258). Moreover, they argue, this participatory ethos now invades our daily life such that average citizens are expected to participate everywhere, to fulfil formerly specialised roles: we self-diagnose before doctor visits; we self-serve at ticket kiosks, restaurants, and grocery stores; we do the work of marketers via social media; we voluntarily fix software bugs; and we provide and share (for free) all the content through which owners of social networks build fortunes. “We participate by shouldering individual responsibility for what used to be collective endeavours”

(Janissary, p. 259) and form conformist, reactionary communities. “Therefore, rather than creating an innovative and egalitarian participatory culture, the traditional top-down human archive is enforced, but by a different mechanism that has participants permanently police each other” (p. 260). The authors insinuate that current participatory cultures, like earlier attempts at collectivist utopia, could lead to totalitarian or fascist structures or societies.

In response, the reader must ask: But aren’t all communities inherently conformist to some degree? In that they have any organising principle or membership requirement, all groups encourage behaviour that feels comfortable and familiar, behaviour “that aligns with dominant norms.” Are digital cultures necessarily more conformist (or more brutally punishing of non-conformity) than non-digital cultures? The Janissary Collective has not proved this point.

In his landmark *You Are Not a Gadget*, technologist and theorist Jaron Lanier mounts a parallel but more wide-ranging critique (Lanier 2010). For him, participatory digital cultures and other Web 2.0 innovations pose a threat to human creativity, productivity, and eventually, even existence. Just as early attempts to digitize music culminated in the now-ubiquitous-but-inadequate MIDI code -- which forces any musician attempting to communicate her art digitally to use a language far more limited than actual music – other nascent digital designs threaten to “lock-in” limited and limiting representations of human creativity (Lanier 2010, p. 12). Twitter glorifies “bits,” just as Facebook enforces conformist, superficial, reactionary self-expression. The social-media derived culture, Lanier asserts, threatens to lock-in a self-absorbed and superficial, diminished definition of personhood.

Moreover, Lanier argues, Web 2.0 cheerleaders, whom he deems Cybernetic Totalists, venerate the Hive Mind -- when crowd-sourced bits congeal into a collective cloud -- as a higher consciousness. And any design that celebrates the crowd necessarily denigrates the individual and delimits individual rights, Lanier argues. For example, by hiding its layered, anonymous multiple authorship, the crowd-sourced Wikipedia elevates itself to the status of supernatural Oracle, a modern parallel to the Bible. Microsoft's "Clippy" tried to anticipate your word-processing needs; Big Blue beat the Grand Master at chess; Google can predict your shopping activity. Humans are getting used to Artificial Intelligence, Big Data, and the "wisdom" of crowds. As bankers did before the Crash, we are increasingly willing to place our faith in Algorithms (Lanier 2010, p.36). Via this worship of the superhuman crowd/cloud/Hive super-consciousness, Lanier asserts, many technologists are surreptitiously designing us toward their unstated spiritual goal: the Singularity, the sci-fi-spawned parallel of the Rapture (the idea that Christian believers will ascend to Heaven at the Second Coming of Christ). In the Singularity version of end-of-times, all human consciousness is absorbed -- or extinguished -- by superior computer intelligence. Beware the designers, laments Lanier, for the limits of their imaginations become the limits of our reality.

The impact of these transformations on daily life on heritage discourse and practice has been profound. Today visitors to heritage websites can reconstruct artefacts, search or augment large databases, engage in wide-scale conversations, and even co-create new projects or exhibitions. According to some theorists, this socially engaged digital media provides new venues for mass cultural production,

fully democratized examples of accessible living heritage practice (Giaccardi 2012; Fairclough 2012). Others such as Lanier and Janissary might counter that the promise only serves to blind us to a new level of obfuscation; the illusion of democracy “invisibilizes” and undergirds institutional control. As yet, only a few studies exist that attempt to capture, understand, or evaluate the diversity of ways non-experts can now use technology to engage with heritage, and these studies exist in different fields (heritage studies, media studies, information studies, museum practice), with little interaction or reference to each other (Giaccardi, 2012; Kidd, 2014; Ridge, 2014).

4.6 Three Rubrics

Three streams of theory/practice have emerged and developed within the heritage sector. While these projects can appear similar superficially in terms of form, purpose, and public call, their different origins necessarily evoke different approaches to issues of control and authority --differences that reflect at their core divergent understandings of the very concept “heritage.” These same philosophical divergences, unnamed and unspoken, undermined the digital strategy “Anglesey: A Bridge Through Time.”

Within heritage studies, some scholar-practitioners have continued to utilize increasingly sophisticated digital tools to evolve their participatory practice, working in partnership with local communities toward open-ended heritage goals. These efforts will be examined under the rubric of *Participatory Digital Heritage*. At the same time, in the GLAM sector (encompassing galleries, libraries, archives, and museums), institutional practitioners have launched myriad digital projects, designed

to harness vast public labour “cognitive surplus” (Shirky), to augment their collections according to institutional goals. These will be examined under the rubric *Crowdsourced Cultural Heritage*. In addition, on a smaller scale, similar crowd- or community-sourced projects have arisen from non-institutional sources: local groups and small software developers producing open-ended heritage collections outside traditional heritage structures. These will be examined under the rubric *Independent Public Digital Heritage and Community Archives*.

4.6.1 Participatory Digital Heritage

Within academic circles, many scholars and practitioners in Heritage Studies or in Human-Computer Interaction operate with an awareness of postmodern critiques, such as those lobbied by the Critical Heritage Studies movement (Harrison, 2013; Smith, 2006; Watson and Waterton 2011), with its systematic analysis of power dynamics within traditional top-down heritage structures. Some of these practitioners are therefore employing new digital tools to enable performative, intangible, and/or grassroots heritage experiences. In her 2011 *Heritage and Social Media*, Elisa Giaccardi examines some of these projects. She contends that such digital designers must face and untangle new problems: “the loss of curatorial voice, the challenges of multivocality, the redistribution of curatorial activities, and the fluid ‘coming together’ of heritage narratives, the duty of memory and the limits of social syntax of mainstream social media, the digital (un)sustainability of embodied practices and knowledges, and the ways in which participation and dialogue are configured” (Giaccardi, p.5). Those who succeed provide a model of co-creation that mirrors the paradigm shifts underway both in heritage and in digital culture at large:

“The key is indeed to value process over product in the cultural production of our relationship to the past.” (Silberman and Purser, 2012; p. 26). The projects share a postmodernist, empowerment agenda: encouraging participants to engage in -- and perhaps share socially -- a personal heritage experience outside of traditional institutions. Within the field of heritage studies, no overarching typology of social-media-inspired projects yet exists; however, Giaccardi groups the projects in her book around shared project goals. This provides a useful typological approach. We will now examine some of these *Participatory Digital Media* projects, grouped around themes of placemaking, sharing social traces, and examining collective personal history.

4.6.1.1 Placemaking

With the advent of GIS and mobile technology, digital media can be tied to – and experienced in – places as never before. New cross-media interactions open new avenues for “placemaking”: exploring and expressing individual and community relationship with physical and social settings, in order collaboratively “to maximize shared value” (Project for Public Spaces 2015). New participatory heritage projects in placemaking enable social production of heritage as the locus of a sense of place.

For example Silberman and Purser (2012) discuss the Levuka Cultural Landscape Project, in which Purser worked with community members in Fiji to use GIS technology to create a multilayered digital map of memories of their town. From the outset, the project design was driven less by conventional research objectives and more by the need to create an ongoing, inclusive and open-ended forum for local discussion and feedback. “Out of the rich interaction of these distinct but

connected and overlapping ‘memory communities’ came an increasingly clear demand on the part of town residents to be given a greater voice in the next phases of the heritage nomination process” (Silberman and Purser, pg 20).

Walking Through Time takes a very different approach to placemaking. In this mapping mashup, any smartphone user in Edinburgh can locate him/herself on Google maps, and then via a custom app, the phone lays down layers of historical maps over the space, in chronological order. The user then is located both in space and time, and can enjoy watching the urban landscape evolve around him/her. It offers users a way to walk through the past and extend their understanding of heritage in a particular geographic location.

In 2003, CFC Media Lab helped to establish the first installation of the [murmur] project, a digital, locative oral history project, in Kensington Market, Toronto ([murmur], 2009). Researchers posted ear-shaped signs with phone numbers on street corners. Passersby with mobiles could phone the numbers and hear a personal recollection about that place – and they could upload their own stories. “It’s history from the ground up,” claims the [murmur] website: “By engaging with [murmur], people develop a new intimacy with places, and ‘history’ acquires a multitude of new voices. . . . [Murmur] brings people closer to the real histories that make up their world.” From 2003 to 2009, [murmur] spread to seven other Toronto neighbourhoods and then to 11 other cities around the world ([murmur], 2009).

4.6.1.2 Social Traces

Other heritage designers have created installations whereby visitors can leave an image or an opinion and interact with those left by others. Interaction designer

Luigina Ciolfi defines these “social traces” as “ideas, opinions, physical trajectories and collaborative practices that embody the presence, activity and agency of multiple participants” (Ciolfi 2012, p.73). In *Re-Tracing the Past*, Ciolfi co-designed an installation wherein museum guests encountered several “mysterious objects,” and then could audiorecord their opinions about them and listen to others’ opinion via an “interactive radio” (Ferris et al 2007.) Along with collaborators, Ciolfi also designed the installation *Shannon Portal* at Shannon Airport, in which passersby could enjoy simply observing a wall of images, or they could choose to interact with it through bodily movements (Ciolfi, 2012). They could also select and annotate photos, changing the display for subsequent visitors, often sharing reflections related to that day’s travel trajectory. These combined traces created a social interaction among strangers in a largescale public space, an ever-changing configuration of shared contemporary heritage. “This function of design as a support for expressing and representing the social nature of heritage is key in facilitating the creation of shared heritage through active participation,” Ciolfi writes (2012, p. 73). An online version of the *Portal* gallery was also open to remote users and served as an outreach to the local community, highlighting the airport’s importance. Ciolfi stresses that truly responsive and interactive social experiences can be built from both high and low tech interventions; applying pre-fab social media applications can dangerously limit and proscribe creative social interactions.

Tales of Things is another design that encourages people to add interpretive and personal layers to physical objects in public, creating a social heritage experience in surprising spaces. Via an app that connects QR codes on object labels

to a database of stored data, people can both experience alternate storylines and share them (Speed 2012). The *Tales of Things* tags were appended to objects displayed at the National Museum of Scotland in 2011, and it was also used to annotate donated objects at a Manchester charity shop in a project called *RememberMe*. These two projects “offer a different connection with history, the ability to ‘write’ to an arteact, offer new histories, contest the veracity of any history that is presented to us, and offer alternative associations and pasts” (Speed 2012, p. 194).

4.6.1.3 Collective Personal History

Giaccardi describes an early (1999) experiment in building participatory digital heritage in Lombardia, Italy, via the MUVI project, which collected family photos (and the audiorecorded stories they prompted) via a combined website and series of radio broadcasts. It focused not just on collecting personal heritage artefacts but also on promoting the storytelling associated with them, encouraging a local, personal heritage process. “MUVI transforms its audience – the local community – into active heritage, and makes it the main actor in the construction of the museum” (Giaccardi and Palen 2008, p. 284). Though led and designed primarily by academics, these *Participatory Digital Heritage* interventions seek on the whole to create open-ended heritage experiences for participants, outside traditional structures.

4.6.2 Crowdsourced Cultural Heritage

Far more publicized and therefore well known to the public are the myriad larger participatory web projects now sponsored by institutions within the sector known internally as GLAMs (galleries, libraries, achives, and museums). Primarily task-

oriented and object-focused, these projects use the Cognitive Surplus (Shirky 2010) to augment the collections of these cultural institutions, according to their internal goals. While technology-aided, such an approach tends to reinforce traditional heritage models, with top-down interpretive hierarchies.

Within this sector, these projects are generally referred to as “crowdsourcing” initiatives, using the 2006 term popularized by Jeff Howe, which he defined as “the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call” (Howe 2006). Inspired by earlier innovations in “citizen science,” which, in the first decade of the millennium, mobilized thousands of amateurs to contribute to large-scale projects in the sciences, from interstellar observation to wildlife-tracking (Kärnfelt, J. 2014; Robson, C. 2012; Simula, H. 2013), GLAM practitioners began implementing participation projects in earnest around 2009 (for examples see below). In response to calls for greater access from scholarly and other researchers, archivists led the drive both to digitize collections and to augment metadata with tags that improved searchability. Once digitized, tagged, and incorporated into open networks, artefacts could then be freely shared on the web -- embedded, recommended, cited, and remixed – all actions serving to boost their online presence, as well as the institution’s. Museum officers soon built participatory projects around collections across the spectrum, inviting online audiences to interact on many levels with historical diaries, ships’ logs, paintings, wills, menus, old newspapers and maps. Audiences responded; they transcribed, corrected, tagged, described, and contributed, and news media reported on

innovative and successful projects across the sector, which accelerated the trend. At a time of institutional cost-cutting, GLAM practitioners quickly understood crowdsourcing as a key opportunity to enhance collections without sacrificing staff time, while also building the institution's public profile and fulfilling funders' objectives around community outreach and public education.

4.6.2.1 Typologies of Crowdsourcing

A few commentators have attempted to organise the field using typologies of crowdsourcing. In 2009, the Center for Advancement of Informal Science Education (CAISE) developed an early three-tier typology system to categorize citizen science projects: 1) Contributory, in which participants contribute data, 2) Collaborative, in which some participants may also collaborate in design, analysis or dissemination of findings, and 3) Co-creative, in which participants are actively involved in all steps, including design (Bonney 2009). The Center postulated a scale: from Contributory to Collaborative to Co-Creative: user engagement was shown to grow as organisations allowed participants greater authority and control (Bonney 2009).

Two years later, after a boom in projects to augment museum collections, commentators Oomen and Aroyo further refined the CAISE typology for the GLAM sector, teasing out meanings behind the earlier "contributory" and "collaborative" labels and focusing on user tasks to create a 6-category typology, shown in Figure 7, below (Oomen and Aroyo 2011). While the two authors include the newer practice of "crowd-funding" as category six, prominent crowdsourcing scholar Mia Ridge later explicitly rejects the idea of classifying crowd-funding as a part of crowdsourcing:

Crowd-funding is “often just asking for micro-donations,” so not meaningful engagement with content (Ridge 2012).

With the exception of crowdfunding, Oomen and Aroyo contend that, as projects moved up this task-focused scale, demand for higher-level skills increased and therefore numbers of participants decreased. It’s a phenomenon others later labelled “crowd-sifting” (Causer and Terras 2014). Unlike Bonney in the CAISE typology, Oomen and Aroyo do not posit an engagement scale or comment about engagement as it relates to task difficulty. Writing in a blog post three years later, Mia Ridge shares her own typology, based solely on the type of tasks allotted to participants – tagging, linking, debunking – as it relates to data generated for the institution, without regard to levels of shared control or engagement (Ridge 2015). Writing for a museums audience, Ridge judges the tasks by the relative usefulness of the data generated to specific targeted institutional projects. Writing for an academic audience, Oomen and Aroyo provide a less targeted, fuller description and discussion of the types, so we will use their approach for this examination.

Crowdsourcing Type	Short Definition
Correction and Transcription Tasks	Inviting users to correct and/or transcribe outputs of digitisation outputs.
Contextualisation	Adding contextual knowledge to objects, e.g., by telling stories or writing articles/wiki pages with contextual data.
Complementing Collection	Active pursuit of additional objects to be included in a (web)exhibit or collection.
Classification	Gathering descriptive metadata related to objects in a collection. Social tagging is a well-known example.
Co-curation	Using inspiration/expertise of non-professional curators to create (web)exhibits.
Crowdfunding	Collective cooperation of people who pool their money and other resources together to support efforts initiated by others.

Figure 7: Table of Oomen and Aroyo's Classification of Crowdsourcing Initiatives

4.6.2.1.1 Correction/Transcription

Under the first category in the Oomen and Aroyo typology, participants transcribe or correct documents that are unreadable (or not wholly readable) to computers, such as handwritten letters and diaries. Notable examples include *Transcribe Bentham*, run out of University College London. Participants transcribe the writings of the 19th century English inventor and reformer Jeremy Bentham (Causer 2013). While perhaps slow to gather momentum, by 2014 the project had achieved marked successes. Of the total 72,500 folios in the collection, staff had managed to transcribe 28,000 over the 26-year period prior to the crowdsourcing project, a rate

of 1,076 per year. In the three years since, project participants have transcribed at a rate of 2,024 manuscripts per year (Causer and Terras 2014). While the project has cost nearly £600,000 to set up, organisers believe that, in the long run, it could end up saving the archive about £1,000,000 in staff costs (Causer and Terras 2014). Other prominent examples include *Papers of the War Department* (transcribing an archive of 45,000 documents from US history, based in Virginia), *What's on the Menu?* (transcribing the New York Public Library's collection of restaurant menus), *Old Weather* (transcribing weather information from ships' logs from the early 20th century to study weather patterns based both at Oxford and in the US), and *Ancient Lives* (transcribing the 500,000 fragments of ancient papyri in Oxford's Oxyrhynchus collection) (Papers of the War Department, 2012; NYPL Labs, 2011; Zooniverse 2013). In the GLAM sector, many crowdsourcing projects fall under this category.

This category also contains "Correction," which describes projects in which human participants correct transcriptions completed by computers. For example, the Australian Newspaper Digitisation Program currently contains 15 million pages from almost 900 Australian newspapers (National Library of Australia 2014). Selected titles are scanned by software using Optical Character Recognition software, which quickly and cheaply "reads" text, but can also register errors, especially in deteriorated documents or irregular, hand-set documents. Human volunteers then correct these errors.

4.6.2.1.2 Contextualization

Oomen and Aroyo use this type to describe institutional crowdsourcing that seeks to collect information or even personal stories that add context to "flesh out" collection

items. For an example they cite *1001 Stories Denmark*, from the Danish Agency for Culture, a rare successful example in which institutional heritage agencies seeded a website with official content (a timeline and 50 theme essays by heritage experts), then allowed the public to augment it with colourful personal history (KulturArv.dk 2011).¹ For example, in a story called “Ladies of the night, sailors, and the Little Mermaid,” contributor Claus M. Smidt relates that the now-tony Copenhagen neighbourhood of Nyhavn was for many years the haunt of sailors and prostitutes -- and that the famous children’s writer Hans Christian Andersen lived there three times between 1830 and 1865 (Smidt 2011).

4.6.2.1.3 Complementing Collection

Oomen and Aroyo use this term to describe “active pursuit of additional objects to be included in a (Web)exhibit or collection.” For examples they discuss the British Library’s *UK Soundmap* and *Wir Waren So Frei*. In *Soundmap*, the Library asks the public to record and upload audio files, preserving sounds heard around the country (British Library 2011). *Wir Waren So Frei* was a German effort to collect personal memories, photos, and videos documenting the fall of the Berlin Wall in 1989, which has since been folded into the larger continent-wide programme called *Europeana 1989* (Wir Waren So Frei 2013).

Oomen and Aroyo also include in this category *RunCoCo*, (RunCoCo 2011) a project run out of Oxford University, which grew out of a pioneering 2008 project

called the *Great War Archive* (University of Oxford 2008). That project, among the first new community-collected online archives, ran for just three months but collected 6,500 items of memorabilia related to the Great War on a purpose-built web platform. Lessons learned there were then rolled into *RunCoCo* – short for “run community collections” -- an ongoing set of resources offered to others interested in starting community collections, especially community groups (RunCoCo 2011a). Six years later, however, under the “projects” section of its website, *RunCoCo* doesn’t feature or list any local community groups who have used its platform (RunCoCo 2011b). It highlights only projects by larger institutions such as other Oxford groups and Europeana, the “culture professionals” network. At the bottom of the Projects page, however, sits a box labelled “JISC projects,” which links to another page devoted to a group of 11 small community projects that were funded by JISC to use *RunCoCo* resources for one year, 2010-2011 (RunCoCo 2011c). Of 11 projects shown on the JISC page of the *RunCoco* website (as of May 2015), four were dead links, and five went to websites that were moribund (no new posts since 2012). Just two projects continue: *Strandlines*, which appears to be a London community collection but is actually run by Oxford staff (Strandlines) and *MOCO* (Mass Observation Communities Online), an archive about daily life in Britain that’s been running in different formats since 1937 (MOCO, 2010). From these data, one might surmise that 2010 -- just when the current research project began – formed a “high point” for so-called Complementing or community collections; that’s when JISC and *RunCoco* made their push to support fledgling efforts around the UK. But without long-term support from either national institutions or longstanding local groups,

these efforts did not survive. (Several other community collections, built from longstanding local groups and unconnected to national bodies, do survive. These will be discussed below, under the rubric *Independent Public Digital Heritage and Community Archives*.)

Other projects that escaped notice in the 2011 Omen and Aroyo survey merit discussion under this category. *The Peoples Collection Wales* website first debuted in August 2010, to significant fanfare (Welsh Government 2014). Bringing together for the first time the digital collections of every major heritage agency in Wales, the project was launched with generous backing from the Welsh government, “with the aim of becoming a collaborative record of the history of the people of Wales. The website wanted to give people across the country the opportunity to contribute their own stories of life in Wales to a collection which could be discovered by others across the world” (Archives Wales 2010). Since then, according to the website, over 46,000 items have been contributed and shared and seen by over 19,000 unique visitors who spend time on the site each month (Archives Wales 2010).

But has *People’s Collection Wales* accomplished its goal of wide-scale participation? Today, five years after its launch, the website is still primarily a collection of images -- not stories – and these almost entirely from authoritative heritage sources. There is very little interpretative framing: the home page offers a historical photo with a brief photo credit and some directions for site use. There is no date for the photo or narrative about it (People’s Collection Wales, 2015). The site is a digitized collection of historic images, with very little trace of visitor contact. It’s an online museum no one seems to go to.

For example, a May 2015 search on the site for “Bangor” brought up 390 images of the city – nearly every one contributed by a heritage agency (People’s Collection Wales, 2015b). Fewer than 10 of the 390 images were uploaded by individuals, and these all bear bare one-line photo captions, not stories. For example, Maldimo52’s photo, “Bangor & Menai Bridge” is labelled: “Aerial view of the eastern end of the Menai Straits with part of Bangor in the foreground and Menai Bridge town on the Isle of Anglesey. Taken 26 June 2005” (Peoples Collection Wales, 2015c).

Despite an impressive initial marketing campaign and continuous government support, the website has not issued a compelling invitation to the Welsh people to contribute; it still doesn’t *look like* a Complementing Collection. Though it claims 19,000 unique visitors a month, these visitors certainly are not contributing “their own stories of life in Wales.” The site remains an institutional image collection, with uncertain public engagement value.

4.6.2.1.4 Classification

By far the majority of crowdsourcing projects in the GLAM sector fall within the Classification category, which Oomen and Aroyo define as “gathering descriptive metadata related to objects in a collection.” They give social tagging (asking users to attach descriptive key words to artefact images, to improve searchability) as a prime example. Among the early pioneers here was the consortium called *steve.museum*, which managed to collect 468, 120 tags in just 2 years (Trant 2011). Also in 2008, the Library of Congress explored tagging by sharing a set of 3,000 images to Flickr, in order to collect information about them in the form of tags and comments. During

the first ten months of the program, 2,518 visitors left over 67,000 tags, an average of 14 for each photo (Springer, 2008, p. iv).

In 2011 the BBC debuted the *Your Paintings* website (BBC 2015), which via the Public Catalog Foundation, contained digital images of all 200,000 publically owned oil paintings in the UK. Alongside the collection debuted Oxford's *Your Paintings Tagger*, a project that encouraged volunteers to add 'social tags' to the paintings, key words related to the paintings' subject matter, mood, and artistic style that would aid searchability (Public Catalogue Foundation 2015). In two years, participants added over four million tags to 23,000 paintings. (Eccles 2014).

4.6.2.1.5 Co-Curation

According to many commentators, projects that allow co-creation, with participants allowed to engage in some aspects of the process of curation (choosing content, judging contests, designing exhibitions, steering institutional priorities) create deeper public engagement and stronger long-term relationships. The outright leader in this area has been Brooklyn Museum and its digital engagement specialist Shelly Bernstein, who has sought to build community interaction, to create a "backbone of trust" with visitors via digital engagement, since 2007 (Bernstein, 2014; p. 18) The museum's website provided an interface that not only allowed users to interact with collections (as on websites such as the *Peoples Collection*) but also to engage socially; visitors can follow one another's tagging and commenting activity and even play tagging games against each other (Bernstein, p. 18).

When it comes to curation, Bernstein has also pioneered designs that include and empower participants. For example her 2008 *Click!* project crowdsourced not

only the collection itself (389 photos from community members on the theme “The Changing Face of Brooklyn”) but also its judging (Brooklyn Museum 2012.). In an attempt to test insights from James Surowiecki’s book *The Wisdom of Crowds*, Bernstein designed an online platform wherein voters from around the world could rate the photos on a sliding scale from most to least effective, with in-built controls that kept voters from influencing one another. Response was good; the project engaged audiences. 3,344 evaluators cast 410, 089 evaluations; the average participant looked at 135 works, each for an average of 22 seconds (Bernstein, p. 23). Astoundingly, those who rated their own art expertise as “none” chose almost exactly the same top ten photos as the self-described “expert” group, which supports a central “wisdom of crowds” thesis (Bernstein, p. 23). More important, the exhibit proved popular: 20,000 people came to view the six-week exhibit (Bernstein, p. 23).

A subsequent project, *Split Second: Indian Paintings* tested Malcolm’s theory about first impressions, related in his book *Blink* (Brooklyn Museum 2013a). Gladwell parlayed how experts in many fields can learn to make instant decisions that are remarkably apt. In Bernstein’s experiment, she compared participants’ split-second impressions of art to their opinions when allowed longer time and exposure to interpretive texts. Participants rated each artwork on a number of scales (Brooklyn Museum, 2013a). In 2011, Bernstein designed an in-person version of *Click!* In Bernstein’s *GO*, 1708 local artists opened their studios to community members, who explored and discussed the art, then, using the website and a mobile app, voted on which artists to include in a museum exhibition (Brooklyn Museum, 2013b). Primarily

a real-world-based example of crowdsourced co-curation – so not technically a digital intervention -- the project encountered many of the same issues around quality and authority typical to online projects that employ power-sharing designs. In this instance Bernstein resolved that tension by adding a top layer of curatorial control. She writes:

The curatorial component of the exhibition was designed as a collaboration between the staff at the Museum and the general public. In past exhibitions like Click! the resulting exhibition was seen as the ‘community’ show where curators took a backseat to the community’s choices. This resulted in an exhibition beloved by the public, but seen as an anomaly within the institution: an exhibition hosted here, but not truly owned by the institution. By designing a process in which the curatorial staff at the Museum were in charge of reviewing the community’s choices and then building a show based on the community’s choices, it ensured the result was something the institution was engaged with at a core level (Bernstein, p. 38).

The passage suggests that, even at an innovative institution, professional curators insist on maintaining control over exhibitions. They may allow an occasional “community show,” but regard it as alien and hold it at some distance. Only when the design restores traditional power dynamics, giving curators’ power to “review” community choices, will they engage with it at a “core level.” The tensions revealed here may explain why co-curated crowdsourcing projects remain rare in the GLAM sector.

4.6.2.1.6 Crowdfunding

Oomen and Aroyo include crowdfunding as the last of the six groups in their typology, a trend exemplified by the Louvre’s 2010 campaign that inspired 5,000 small donations to facilitate its purchase of a painting by German painter Lucas Cranach the Elder (New York Times). Subsequent commentators, including the

crowdsourcing expert Mia Ridge, repudiate this classification (Ridge 2015).. For her, while crowdfunding can lead to audience engagement, it's fundamentally different from crowdsourcing, which she sees as a joint endeavour centred on tasks such as tagging. Crowdfunding, on the other hand is "often just asking for micro-donations" (Ridge, 2015). This functional distinction may result from Ridge's work in museums, where curation/engagement routinely happens in a department separate from fundraising. From a digital media perspective, however, both kinds of museum engagement require user "donations" -- one of time, the other money -- and so a common classification system seems reasonable.

4.6.2.2 Limitations of Crowdsourced Heritage

Unlike the *Participatory Digital Heritage* practices discussed above, which while time-limited, seek on the whole to create open-ended heritage experiences outside traditional structures, *Crowdsourced Cultural Heritage* within the GLAM sector remains primarily task-oriented, asking audiences to augment traditionally object-oriented collections; they retain traditional power dynamics. While a few GLAM projects like the *Peoples Collection Wales*, claim to embrace open-ended public contribution, it has failed to pursue engagement goals and remains a static, authoritative collection. Institutional efforts to seed local collections, such as *RunCoCo*, have failed to develop long-term participation. Even innovative technologists such as Shelley Bernstein, working in an institution that often lives out its community-centred vision, faces internal opposition when she shares curatorial power with community members. At the same time, outside the domains of heritage studies and the GLAM sector, smaller participatory heritage projects have cropped

up. Without media coverage or professional conferences to raise their profiles or build connections, local community groups have discovered the power of crowdsourcing history. We will examine their efforts under the rubric *Independent Public Digital Heritage and Community Archives*.

4.3.3 Independent Public Digital Heritage and Community Archives

In the UK, a pioneering example in this genre is *My Brighton and Hove*. After a 1995 display on local history in the public library, a nascent community group began collecting photos and personal stories of the area's past (My Brighton and Hove, 2015a). In 2000, the group launched the website *My Brighton and Hove*, which now boasts more than 11,000 crowdsourced pages of photos, stories, and tours of the area (My Brighton and Hove, 2015b). Users can search by places, topics, and people. They can also upload photos, comments, and stories, or send messages to one another. Like the *RunCoCo* project that grew out of the *Great War Archive*, *My Brighton and Hove* also spawned a software company, Community Sites, which has now built collaborative community heritage websites for groups around the UK (Community Sites 2015). From Salisbury to Blackburn to Galway, its website lists about 20 local heritage websites. Some of these are affiliated with the group Community Archives and Heritage Group, which supports and promotes community archives (including older non-digital collections) across the UK and Ireland (Community Archives and Heritage Group 2015).

More recently, many new local digital heritage efforts have sprung up, aided by national funding calls. In 2011 the Arts and Humanities Research Council (AHRC) announced a major UK-wide effort to bridge the gap between academic researchers

of communities and community activists. Under its “Connected Communities” programme, academic researchers were funded to advise community groups who sought separate grants under the Heritage Lottery Fund’s “All Our Stories” programme (Arts and Humanities Research Council 2012). According to a later evaluative report (ICF GHK, 2014), 542 local projects were awarded a total of £4.5 million from the Heritage Lottery Fund, toward a wide variety of heritage projects, from events to exhibitions to films (ICF GHK, 2014). Grantees were encouraged (and given technical support) to upload digital artefacts to the global Historypin website, but participation here was “mixed,” according to the report. Only 10% of the projects used websites, social media or blogs to further share their project activities (ICF GHK 2014). It remains unknown how many of the local projects attempted to create digital community archives.

Other interesting independent projects have been born out of collaborations between individuals or groups and activist software developers. For example, in 2004, Isaac Lipschits, a retired Dutch professor, approached the Amsterdam media collective Mediamatic (MuseumNext 2011). He had collected a database of the names, ages, occupations, addresses, and personal effects of Jews living in Amsterdam in 1940, and he asked the collective to help him build a digital memorial (Mediamatic collective 2011a). In 2005 Mediamatic designed and launched “Digital Monument for the Dutch Jewish Community,” a web page installation comprised of interactive coloured bars, each tiny square representing a person (Mediamatic collective 2011b) When a user clicked on the square, the database revealed a name, an address, and other sparse bits of information. Public response was swift and

overwhelming; people deluged Mediamatic with photos, letters, and other memorabilia related to their former neighbours and friends (MuseumNext 2011). From that response the group developed a new, separate website, the “Jewish Community Monument,” which now contains rich, crowdsourced information and memorabilia related to 105,000 people who perished in the Shoah (Mediamatic collective 2011c). Literally a whole nation’s tribute to a lost community, the website continues to collect pieces and spawn new projects, updated and maintained by volunteers. Mediamatic announced plans to create a mobile app that allows users to access a database of Amsterdam addresses from which Jews were deported; the whole city becomes a walking tour memorial (MuseumNext 2011).

The original website arose outside the bounds of traditional heritage structures, as an independent heritage expression -- as did the windfall of contributions that followed it. Interestingly, while the construction of the later collecting website was funded through Maror Foundation and by the Active European Remembrance program of the European Union (Mediamatic collective 2011d), neither group appears to be asserting curatorial control over it. It remains an open community archive. Registered website users can tag photos, add comments, and upload any photos and stories that fit within the Terms of Use (Mediamatic collective 2011e). As long as they are not offensive, racist, indecent, or illegal, “stories are displayed exactly as the author publishes them.”

In 2011, British digital innovators with an interest in heritage launched HistoryPin, with the ambition of creating a global, location-aware database of historic images. Today the platform claims to hold 380,000 items uploaded by 60,000

“citizen historians” and 2,000 museums, archives and libraries (Shift Design 2015). Unlike task-focused GLAM sector collections, however, Historypin actively encourages individuals and community heritage groups to upload and create open-ended collections, through funders such as the Heritage Lottery Fund and through its provision of digitization training resources. And while it sometimes partners with GLAM sector institutions, Historypin promotes itself as a social enterprise; it focuses on people and relationship over collections. Its website’s most prominent mission statement – “Enabling networks of people to share and explore local history, make new connections and reduce social isolation” (Shift Design 2015) -- echoes the empowerment process advocated by other participatory theorists: “The key is indeed to value process over product in the cultural production of our relationship to the past.” (Silberman and Purser, p.26) Despite its egalitarian language, however, Historypin does employ a level of hidden professional curation. Anyone can upload individual photos or videos (annotated with brief text and “pinned” to a specific location), but an individual user can’t group photos into a theme or frame said group with interpretative text. That can be done only by Historypin “Projects,” which must be sanctioned by staff members, who then coach groups. Selected Projects are then highlighted on the home page. In that sense, Historypin is not a completely open global archive; any group who wants to retain its ownership or the right to frame interpretation as it chooses might well decide to invest in a separate web-based archive.

In Ireland, one museum has proved a pioneer – not only actively seeding and supporting open-ended community archives but also gathering them into a coordinated national network. Starting in 2008, staff at the National Museum of Ireland - Country Life ran a pilot program looking for community groups who wanted to start archives (Elms 2015). A group from County Oughterard then launched a web archive using Comm@net software; in 2010 it moved to the participatory Community Sites platform. In 2011, with four more community archives on board, the museum launched iCAN, the Irish Community Archives Network (iCAN, Irish Community Archives Network 2015). Today, the network includes several more groups, with older archives actively mentoring younger ones. The national office offers funding and training, along with, importantly, a unifying national vision (missing at this level in most other countries) that supports and legitimizes community heritage: “These communities are in effect, *writing their own histories* by tapping into local collections, family photographs, memories, newspapers and publications, church records and so much more. Much of the information has never before been published and offers fascinating insights into Irish life” (iCAN; emphasis in original).

4.4 Conclusion

GLAM practitioners generally embrace the market-based term “crowdsourcing” to describe their digital public engagement task structures. Researcher and commentator Mia Ridge defines crowdsourcing as “an emerging form of engagement with cultural heritage that contributes towards a shared, significant goal or research area by asking the public to undertake tasks that cannot be done automatically, in an environment where the tasks, goals (or both) provide inherent rewards for participation.” This definition retains the Enlightenment and Modernist sense of “cultural heritage” as a material noun that the public engages with, within GLAM institutions, via tasks the museums deem “significant.” Authorised Heritage Discourses are reinforced (see Smith in Chapter 3).

Instead of “crowdsourcing,” projects in the category *Independent Public Heritage and Community Archives* may well sit better under Yochai Benkler’s term “commons-based peer production” (Benkler 2006). Referring to Open Source software development and some collaboratively edited websites, Benkler debuted the term in 2002 and expanded it in his 2006 book, *The Wealth of Networks*. He described these collaborative efforts as a new system of production between peers that didn’t depend on or produce proprietary knowledge, characterized by a decentralised, egalitarian structure. The peers “cooperate effectively to provide information, knowledge or cultural goods without relying on either market pricing or managerial hierarchies to coordinate their common enterprise.” (Benkler 2006). On

the whole, community archives fit this description: They are peer-led, with little or no managerial hierarchies, creating non-proprietary information.

Unlike the GLAMs' task-focus, archives and other, more inclusive "bottom-up" heritage projects seek to create a heritage *process* embedded in longer-term relationships with local "knowledge communities." "Engaging with these communities often requires longer time frames than simpler task-driven crowdsourcing may allow," writes Jon Voss, a founder of Historypin, which is among the few organizations purposely supporting and synthesizing community heritage outputs (Voss). Along with participatory innovators from the heritage domain like Perkin (see Chapter 3), Historypin is working to develop collaborations that require trust, and trust takes time to develop. Time seems to be a factor for developing participation heritage. For example, many of the heritage projects seeded via short-term funding from groups like JISC and HLF don't survive, and their hard-earned collections websites have disappeared from the web. Long-term commitment and support, like that demonstrated by the Irish National Museum of Ireland - Country Life and its iCAN, are largely absent.

Archives activist and theorist Andrew Flinn goes further, arguing that funders should require heritage practitioners to analyse continually their relationship with communities, searching out and correcting power imbalances.

Our critical reflections need to consciously examine how our relationships are developing; the structures that sit around what we are doing (and how those structures enable and hinder); the extent to which assumptions are shared or conflict; and how authority and control is perpetuated through the complex relational exchanges that occur within and between us. We must pay attention to space and positioning and the distances that exist between us both as

individuals and as we come together in different incarnations of 'community' (Flinn and Sexton, 2013, p. 12).

While such power imbalances remain unquestioned in institutional crowdsourcing efforts, archivists and heritage practitioners are using the new participatory platforms toward their democratizing potential. Working in intentionally power-sharing partnerships with individuals and community groups, these practitioners are creating new forms of heritage online, which in their turn promise to shift both popular and academic notions of "history."

Living outside Authorized Heritage Discourses, these collections represent an opportunity for researchers to add new discourses and to broaden thereby the range of source material at their disposal. The collections open a window on "everyday history," working-class history, and that of marginalized and underrepresented communities. In addition, such archives also empower the participating community and individual. Referencing the theorist Raphael Samuel, archivist Andrew Flinn writes: "As Samuel suggested, the type of histories which can be written are also potentially changed by the transformation of the archive and the archivist. The 'thick description' history which he advocated and which places rounded individuals (with families, beliefs, interests, etc.) and individual agency at the centre of historical narratives can only be achieved with a more imaginative approach and the use of a wider range of sources, notably oral history, autobiography and other memory works" (Flinn 2012, p. 34).

This chapter presented the "state of the art" of participatory digital media for heritage, part of the context for the current project. It explored theory relating to

participation, participatory design, participatory heritage, and participatory media cultures in general, and then it presented a three-rubric outline of recent relevant participatory heritage projects. Overall, traditional power imbalances remain unquestioned in institutional crowdsourcing efforts, but some academics, archivists and independent heritage practitioners are using the new participatory platforms toward their democratizing potential. In the next chapter, the thesis moves on to create a methodological framework to undergird the project.

Chapter 5: Methodology

5.1 Introduction

This chapter presents a methodology for the research project “Anglesey: A Bridge Through Time.” First it discusses some relevant epistemology and ontology and locates the researcher’s philosophical and social position relative to the project. Then, drawing on the concept of “the bricolage,” the researcher develops a mixed-methods approach. As a real-world intervention that combines relevant research with the creation of a new digital artifact, in collaboration with partners in local industry and government, the current research project represents both an Action Research mediation and a Practice-Based Research investigation. In this chapter the researcher examines interaction design research, research-through-design, and data collection. Using Fallman’s Interaction Design Research Triangle (Fallman 2008) as a framework, the chapter reviews design theories developed for the website “Anglesey: A Bridge Through Time.”

5.2 Philosophical Grounding

A strong research design requires a methodology that is congruent with a researcher’s beliefs about the nature of reality. Subjecting assumptions to interrogation can surface underlying prejudices, clarify understanding, and eventually lead to selecting an ontological and epistemological methodology that is consistent with the researcher’s worldview.

In *Visualizing Research*, Gray and Malins examine research positions for practice-based researchers in Art and Design. With regard to ontology, or the nature of reality, they contend that most recent researcher-practitioners eschew the older

positivist approach, which posited a single knowable, immutable reality, in order to take a relativist approach, wherein any particular personal creation or investigation is but one of many possible relative interpretations (Gray and Malins 2004). In terms of epistemology, because the researcher is the practitioner and is therefore involved in the project as an active agent, the role is inherently complex and multi-layered. A subjectivist epistemology best serves this position, as knowledge produced is contextual, inter-subjective, and constructed via dialogue. Therefore, for practice-based researchers, methodology necessarily becomes varied, multi-modal, pluralist. Certainly in the current research project, the practitioner will demonstrate a relativist ontology and a subjectivist epistemology, drawing from both critical theory and constructivism.

In their foundational *Competing Paradigms in Qualitative Research*, Egon Guba and Yvonna Lincoln provide further detail and depth that is directly relevant to the current project. Discussing the critical theory position, they posit a transactional and subjectivist epistemology that is *value-mediated*: “The investigator and the investigated object are assumed to be interactively linked, with the values of the investigator (and of situated ‘others’) inevitably influencing the inquiry” (Guba and Lincoln, 1994, p 110). In addition, they label the constructivist position similarly transactional and subjectivist; the investigator and the object are linked so that knowledge is actually created through the process of their interaction. In both positions – critical theory and constructivist – the traditional distinction between ontology and epistemology disappears: “what can be known is inextricably intertwined in the interaction of a *particular* investigator with a *particular* group or object” (Guba and Lincoln, 1994, p. 110). The knowable is context-bound, related

directly to that specific interaction. Both of these positions therefore require a dialectical methodology: inquiry requires meaningful interaction and exchange between inquirer and inquired, from which new knowledge is generated. In the critical theory position, said interaction and knowledge production is pointed toward transformation and emancipation. For constructivists, it becomes a hermeneutic circle (or spiral) that aims toward a superior consensus construction.

5.3 The Researcher's Position

In such a dialectical methodology therefore the researcher bears interrogation, along with the researched. As an American who had been living in North Wales for seven years prior to the start of the project, the researcher was still an “outsider,” both to local Anglesey community members and to British/English/Welsh officials within the heritage stakeholder organisations. To write content essays on local history, months were spent studying the topic and years working to understand the still-current tensions between Welsh natives and English “incomers.” As an outsider, the researcher also depended on the heritage officer at Menter Môn to suggest local volunteers to recruit as co-curators, and to negotiate relationships with other stakeholders such as Anglesey County Council and Gwynedd Archaeological Trust. As a non-Welsh speaker, the researcher also depended on Menter Môn’s in-house translation service to create Welsh versions of all the text written and edited for the website; every page of the website was also available in Welsh.

In working to build a people-centred, multivocal and polysemic website for “Anglesey: A Bridge Through Time,” the researcher was in fact demonstrating a relativistic ontology. Against a predominant Authorised Heritage Discourse based in a positivist materialism and a realist ontology, the researcher sought to create a

platform that would establish and validate a variety of heritage perspectives. It was created out of a series of interactions with Menter Môn, Anglesey Council and other stakeholders, and it grew to include co-curators, bloggers, and other volunteers. This public and visible multi-vocality would serve to encourage a widespread public participation, with the hope that the resulting open-ended heritage discussion could become a locus of knowledge production, fruit of a subjectivist epistemology. So the website itself functioned as a site of interactions, as did the planning and training meetings, as did the larger research-practice project itself, which blends theories and methods across disciplines. As in critical theory methodology, the larger aim – opening of the heritage discussion on Anglesey – points toward emancipation. As in a constructivist hermeneutic, the research-practice project contributes (one hopes) to a larger dialectic about participatory design within local heritage structures.

5.4 Multi-Method Approach and the Bricolage

As Gray and Malins suggest, many practice-based researchers adopt a multi-modal, or mixed methods methodology. If necessary, they can create positivist experimental methodologies, constructivist interpretation, or hybrids customised to the project in question (Gray and Malins 2004). In the social sciences, a mixed approach is sometimes labelled ‘the bricolage.’ Anthropologist Claude Levi-Strauss introduced the term, French for the work done by ‘the bricoleur’ (bricklayer), who makes use of whatever tools are available (Levi-Strauss 1966). Theorist Joe L. Kincheloe argues that, especially in interdisciplinary studies (such as the current research) the bricoleur builds a methodology based on real-world interactions connecting the inquiry to its many contexts (Kincheloe 2001). Unlike the monological researcher who trods the well-worn methodologies of a single reductionist discipline, the

bricoleur builds across disciplines, comparing and contrasting various theoretical assumptions, methods, ideologies. The bricoleur sparks fresh synergies that lead to new methodologies and new forms of knowledge production:

[The bricolage] brings an understanding of social theory together with an appreciation of the demands of particular contexts; this fused concept is subsequently used to examine the repertoire of methods the bricoleur can draw on and to help decide which ones are relevant to the project at hand. Practicing this mode of analysis in a variety of research situations, the bricoleur becomes increasingly adept at employing multiple methods in concrete venues. Such a historiographically and philosophically informed bricolage helps researchers move into a new, more complex domain of knowledge production where they are far more conscious of multiple layers of intersections between the knower and the known, perception and the lived world, and discourse and representation. (Kincheloe 2001, p 688).

Psychologist Sherry Turkle employs the term bricolage to describe computer programmers who bring a creative, idiosyncratic approach to development, in opposition to the dominant paradigm of “hard,” analytical, highly structured methods (Turkle 2011, p 57). About a well known early programmer and hacker, Turkle writes, “In the spirit of the painter who steps back to look at the canvas before proceeding to the next step, Greenblatt developed software that put him in a conversation, a negotiation with his materials. He used bricolage at a high level of artistry” (Turkle 2011, p. 57). In another example, Turkle uses the bricolage concept to describe moral decision-making that is fluid, dependent on relationships and particular contexts – in contrast to rule-bound moral abstractions. For Turkle then bricolage is exploratory, dialogical, context-bound, and particularly well suited to the digital designer, for “[e]xploring the Web is a process of trying one thing, then another, of making connections, of bringing disparate elements together. It is an

exercise in bricolage” (Turkle 2011, p. 61).

The current research employs such methodology. Transpiring at the intersection of local government, international funders, heritage discourse, and fast-evolving participatory media cultures, the current research must necessarily draw on social theories across disciplines and apply them to complex relationships in particular, concrete contexts and venues. For the researcher, a multi-layered, diversely informed, dynamic bricolage proved necessary at every step: to envision the project, to design and populate the website, to create and sustain the collegial relationships, and then to examine and access the website and the project as a whole. At each step in the process, the researcher spun and re-spun the hermeneutic spiral – accessing prior knowledge and integrating new knowledge – continuously re-building the bricolage from pieces including: principles of Action Research, precedents of Practice-Based Research, dynamic relationships with co-curators and local experts from Menter Môn, theory from critical heritage studies (See Chapter 3), insight from participatory media studies and practice (Chapter 4), ideas and practices from other community-sourced heritage projects (Chapter 4), direction from Narrative Theory and prior professional journalism practice (Chapter 5, below), and methodological insights from Design Studies (Chapter 5, below).

5.5 An Action Research intervention

First coined in 1944 by Kurt Lewin of the Massachusetts Institute of Technology, the term “action research” refers to a mode of inquiry that blends relevant academic research with active participation in an organisation’s change process. Popular within education studies, it is often performed by active practitioners within a given field as they simultaneously pursue advanced degrees, culminating in academic

outputs that inform and improve professional practice. Organisations or institutions may also instigate action research campaigns, guided by professional researchers, aimed at refining their practices and strategies. Definitions of this mode proliferate across disciplines, but many practitioners cite Reason and Bradbury's influential 2001 definition, which aligns this scholarly tradition with emancipatory goals:

Action research is a participatory, democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities (Reason and Bradbury 2001, p. 2).

In the current research project, the practitioner-researcher (a former journalist and editor) cultivated a working collaboration with Menter Môn, the rural development agency for Anglesey, a county local to Bangor University, under the stipulations of Bangor's Knowledge Economy Skills Scholarship (KESS) programme. Funded by the EU to create research partnerships in the economically deprived Convergence areas of west Wales, KESS stipulates that students develop research projects relevant to local industry, in conjunction with local business partners. As heritage tourism is a principal local industry (see Chapter 2 for a full discussion), the student approached the heritage officer of Menter Môn to propose a PhD-level research intervention to develop a digital media strategy to promote heritage tourism. Over the course of five years, the researcher-practitioner both investigated state-of-the-art practices within the field of digital media for heritage tourism and created a state-of-the-art website to promote heritage tourism to the island county. In addition to the basic collaboration demanded by KESS, the researcher incorporated Action Research

principles like those espoused by Reason and Bradbury -- developing a body of practical (and theoretical) knowledge about heritage and digital media, while consciously promoting participatory practices via digital media platforms. At the time it was hoped that the resulting website would not only enrich participants' lives through heritage engagement but also enrich the county's economic situation through tourism promotion. The research was therefore toward a specific action.

5.6 Practice-based Research

In academia, at this socio-cultural- historical point, the term "practice-based research" covers a wide range of different research approaches. There are two primary divisions or ways in which the term practice-based research is used. In the first of these, the term is used to capture the idea that one conducts research while participating in a particular practice – for example, while a lawyer is practicing her trade, she might conduct practice-based research on or within different aspects of her professional practice (eg actions, tools, goals, clients, or events). Unlike in Action Research, however, this practice does not necessarily involve collaboration with others, nor does it tend to promote a democratic process of engagement.

In the context of this thesis, we are discussing a second form of practice-based research. In this understanding that practice-based research is any research activity that works within a defined area of practice (e.g. music) and has the goal of doing research while moving towards developing or creating a final product or work (e.g. a musical composition). As will be clear shortly, the current research does involve some elements of practice-based research. We say this because the end result from certain portions of this project was the creation of a final product or work: specifically, the website "A Bridge Through Time".

Within this research project, the methodology that we have employed is one that is a fusion of practice-based and action research approaches, perhaps to be referred to as “praction research”. This term, also used by researcher Gail Simon (Simon 2012), describes research conducted through practice and with the intent of creating action. More specifically, the practice-based element is aimed at creating new artefacts that can fuel the changes in process that the action research is aimed at evolving.

The decision to employ this hybrid approach (praction research) was based on two primary motivations. First, the PhD was funded by an EU funding mechanism (KESS) that requires it to answer directly to a local partner and a local need; the project should solve a problem. In the case of this project, the partner Menter Mon was interested in working to promote tourism and community through the use of digital technologies, not purely academic or theoretical work. To fulfill the funding mandate, then, the resulting digital artefact (Practice Research) needed to promote emancipatory social action (Action Research). In subsequent chapters, the researcher discusses the digital artifact called “Anglesey: A Bridge Through Time” website, as it developed out of a theoretical framework. This chapter outlines that theoretical framework and its resulting methodology.

5.7 Academic Rigour in Practice-Based Research

While interdisciplinarity can stimulate fresh connections and new depth, real-world-based inquiry and interactions add new levels of complexity for practice-based research or action research, both of which are still comparatively young and controversial within academia. Over the last two decades, a rise in professional PhDs and new knowledge-transfer funding schemes have fuelled an increase in such forms

of research and at the same time transformed the relationship between industry and funding-strapped academia. In a paper published in 2000, a group of health education researchers studied how these changes are affecting academia and whether they have had an impact on academic criteria for practice-based PhD projects (Winter et al 2000). While practice-based schemes like KESS (which funded and regulated the current research) might be seen as an example of cooperation, they also represent a crisis in terms of changing expectations, fast-changing and contradictory pressures, and decreased access to resources. At the same time, a huge epistemological paradigm shift is transpiring within academia – moving from positivist to relativist positions, especially in the social sciences – which throws into question all criteria for doctoral inquiry (Winter et al 2000). If all knowledge is context-bound, they ask, how do we evaluate what is ‘good,’ ‘useful,’ or ‘reliable’? Practice-based research in a commercial setting faces many challenges. Not only does it need to prove its utility/ relevance/ profitability to industry, it simultaneously must prove its validity and generalizability to academia, which often labels such knowledge production as context-bound and subjective. As a result, practitioners are caught in the middle, pulled in conflicting directions.

5.8 Practice-Based Research in Design: “The Designerly Way”

Over the last ten years, researchers in Design Studies have begun to articulate a new path for research, separate from both the positivist “objectivity” of the hard sciences and the newer subjectivist epistemologies dominant in social science. In 1999, Christopher Frayling described three pathways to research then accessed at the Royal College of Art: research *into* art and design (more traditional historical, theoretical, or aesthetic inquiry), research *through* art and design (wherein theory

contextualizes an included creative project), and research *for* art and design (wherein the creative work expresses the research) (Frayling 1999).

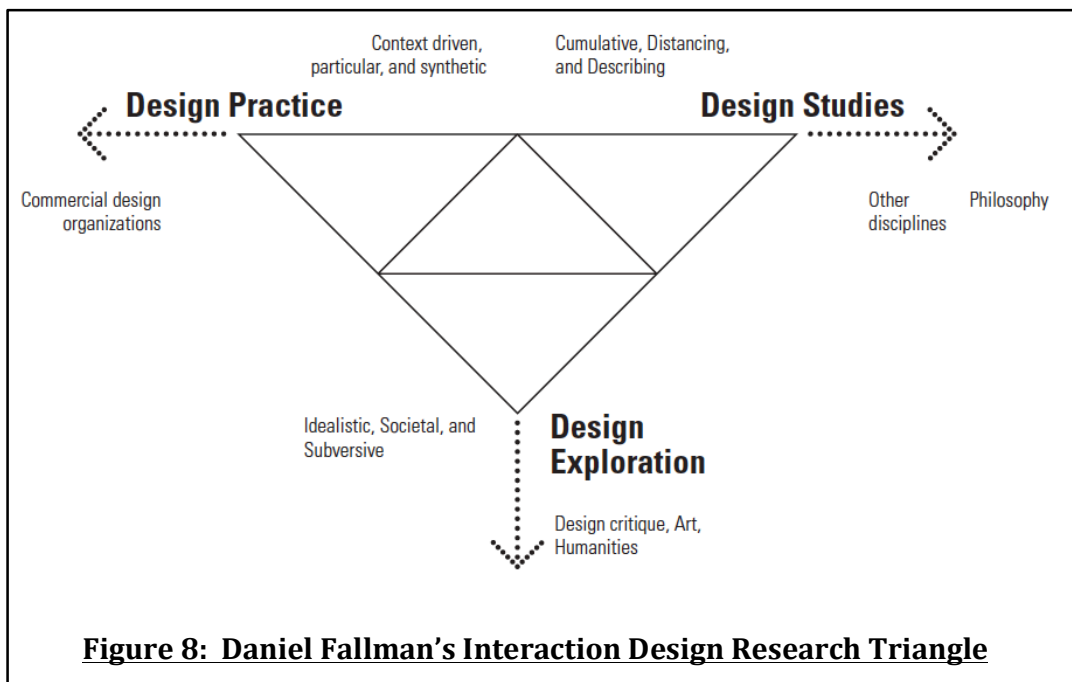
In 2005, Fatina Saikaly published a study that compared research processes of PhD candidates in design who included a design project. Among them she discovered an emerging “third way,” distinct from research in the sciences and humanities (Saikaly 2005). In practice-based approaches, the design projects themselves played a key methodological role. Combined with other research strategies, development and execution of the projects formed the methodology of research, and the projects fulfilled the requirements of doctoral contribution to knowledge.

Five years later, Joyce S. R. Yee performed a similar survey of current practice-based research in design, to disclose further methodological innovation in the field (Yee 2010). She found Frayling’s categories useful for descriptive analysis but not prescriptive, in that many projects utilized more than one of his three paths of inquiry, which Yee takes to further demonstrate the complexity of the designerly approach. Like Saikaly, Yee also finds researchers using mixed-method approaches, including elements of reflective practice method, phenomenological research, and critical theory, all integrated into the process of developing design projects: “I would posit that, creatively combining processes is not dissimilar to how innovative processes are developed in practice, and that this should also be encouraged in research” (Yee 2010, p. 14).

5.9 The Interaction Design Research Triangle

While not all the components of a designerly bricolage can be accommodated, Daniel Fallman captures the methodological interplay of theory, research, and

practice-based work (at least in the field of Interaction Design) with his Interaction Design Research Triangle, developed with colleagues at Umeå University in Sweden. (Fallman 2008). A holistic model captured in a diagram (see Figure 8), it positions research activity on a conceptual triangle, with Design Practice, Design Studies, and Design Exploration at its corners.



The area labelled Design Practice denotes the researcher's interactions with industry, working as an active designer on an interdisciplinary team where "design practice" includes not only product evolution but also "nitty gritty" interaction elements like negotiating budgets, changing client expectations, and interoffice authority conflicts. Within this complex environment, the design interaction researcher discerns a specific research question and focuses on it reflectively, toward the goal of creating an engaged form of knowledge. Design Exploration, as opposed to the client-centred production described by Design Practice, involves creation according to the researcher's own agenda. Asking "What if?" it reconnoitres

the periphery of design methodology and aesthetics, positing alternatives. “Often driven by ideals or theory, design exploration provides what we see as a necessary space for aesthetic concerns in interaction design research. The artifacts coming out of design exploration often are societal in character, and sometimes even subversive” (Fallman 2008, p 8.). As a result, Design Exploration can involve a shift from problem-solving to what Donald A. Schön calls “problem-setting,” the larger question of how the “problem” itself is understood and formulated (Schön 1983). When, according to Fallman, theorist Pelle Ehn conceptualises design as a creative tension between tradition and transcendence (Ehn 1988), it is Design Exploration that fuels the transcendence.

Design Studies, the third activity area, most closely resembles traditional academic study, involving design theory, design history, and design philosophy and aimed at adding to the accumulated scholarly tradition of interaction design. It consists of analytical work and often involves interaction with other disciplines like psychology or the social sciences. “This also is where influences from other disciplines are most visible,” writes Fallman, “for instance working together with social scientists and experimental psychologists, and by directly referencing and adopting other disciplines’ techniques, practices, and theories” (Fallman 2008, p.9)

While discussing relative positions of projects within the diagram can be informative, Fallman contends that the conversation grows far more interesting when we account for motion -- as individual researcher-practitioners and their projects frequently move across the areas, changing their perspectives as they go: “We believe that being able to move in between different parts of the model (i.e., dealing with all three perspectives and the tension that occurs between them) also is

what makes interaction design research fresh, innovative, and unique (Fallman 2008, p.10)” Without beginning or end, these motions are shown as ellipses (which Fallman terms “loops”) to demonstrate that researchers will routinely look at practice from a theory perspective, for example, and then move to look at theory from a practice perspective.

The Anglesey project began in the Design Practice dimension of Fallman’s model. The initial design was context-driven, propelled by commercial design considerations and lead by industry practicalities. At the same time, participatory local heritage was investigated, via several open-ended, community-sourced heritage projects that were active in 2010-13. These include *My Brighton and Hove*, *The Jewish Monument Community* and *1001 Stories of Denmark*, all of which were started or populated by volunteers. The diversity and vitality of these projects suggested that a community-sourced model for Anglesey, might, if sustained by volunteers, help to guarantee long-term sustainability for the project. The industry partner, however, argued for a website with traditional, object-focused, heritage interpretation content. The York Museums Trust site was provided as an example.

At the time, the drive to include social elements was fed by Design Practice – knowledge both that web users routinely expected social elements and that other museum and heritage professionals were routinely incorporating them. Later in the project, the researcher moved to a new perspective, analogous to Fallman’s Design Studies corner, analysing the project from a theory perspective and applying insights drawn from Critical Heritage Studies and Media Studies (See Chapters 3 and 4). In addition, the project can be evaluated from a Design Exploration perspective: If the website had been allowed to keep its participatory functions, with full volunteer

access and the envisioned support for live events and further publicity, might the website have achieved its potential? If it had thrived and developed (as planned) into a lively widescale conversation about the meaning of the island's heritage for current residents and guests, if it had become in reality a locus for the social production of heritage, might it not then have become an exemplar of Fallman's third corner, Design Exploration?

The website and its attendant processes of design and reflection demonstrate a "loop" around and across the three areas of the triangle. The movement was iterative, running freely through all three of Fallman's dimensions, creating a spiral model of development through bricolage.

Traditionally, PhD research is judged on several criteria: validity, reliability, and relevance. Together, validity and reliability create "rigour" and concern the relative worth and precision of measured results. These concepts descend from a positivist ontological approach, wherein reality is singular and knowable; it can be measured by an objective researcher using an experimental quantitative methodology. However "validity" and "reliability" grow fuzzier as philosophical constructs evolve and proliferate. How does one judge the validity of a design object, which is necessarily the product of an individual's unique sense of creativity, ingenuity, tacit knowledge, plus his or her interaction with a unique situation?

Fallman suggests that we judge design projects differently; he asserts that each project should be assessed separately, that "rigour" (combining validity and reliability) and "relevance" should be defined according to each project's particular purpose and intended outcome. Fallman writes:

The purpose of each approach determines what methods and techniques are useful. For instance, in the design practice approach it is all about changing the present state of a situation to a preferred one, it means that methods and techniques for studying and creating a clear understanding of the particular situation become crucial. At the same time, since this approach is all about creating a design that works and changes a particular situation into an anticipated preferred situation, the approach does not really have any predetermined consideration of what constitutes rigor in the process. If the final design makes sense and is useful, that is, if the design is relevant, then rigor is not even an issue. (Fallman, 2010; p. 5)

For the design practice project “Anglesey: A Bridge Through Time,” the purpose was exactly that -- to change the present state of local heritage websites (represented, say, by the York Museums Trust website) to a preferred one, a new local heritage site that engaged a wider audience through person-centred and “warm” narrative interpretation, and participatory social functionality.

5.10 Participation and the Theoretical Framework

As discussed in Chapter 4, Bratteteig and Wagner present participation, the purposeful inclusion of non-experts in social processes, as the product of two motivations: efficiency and empowerment (Bratteteig and Wagner). Both of these motivations played a key part in the current PhD project. By creating a team of co-curators (discussed further in Chapter 6) to help develop the project and host conversations on the website, the researcher hoped to seed a local community of support for the project, which would feed promote further participation and push the project to achieve its goals. In addition, the researcher demonstrates Pretty’s second motivation; the project had a clear empowerment goal, drawing on inspiration from the many participatory heritage projects described later in Chapter 4. Like those theorist-practitioners, the researcher aimed to drive increased user

engagement through her project. She aimed to empower users to develop and share opinions about heritage sites, to influence heritage discourses, and eventually perhaps to become involved with conservation efforts and heritage decision-making on the local and national level. In addition, a third motivation, suggested by recent trends in participatory media, further argued for participation: the great value – in social presence, data gathering, and task completion – that volunteer effort can add to a digital project

A non-expert might use the phrase “participatory design” to describe the current research project, because it involved a variety of stakeholders and end users at various points in the development process. However it was not in the strict academic sense a venture in Participatory Design, because its researcher/designer did not intentionally follow the principles established in that field. More accurately, the researcher of the current project, inspired by completed participatory heritage projects, sought to create a project that, at end, would be participatory: website users could voice opinions and share content in novel ways that might serve emancipatory ends. While the researcher involved selected stakeholders at several points in the design process, this inclusion was secondary, in order to support the creation of a participatory product.

To be clear then, while the current PhD project may borrow some techniques or methodology descriptors from the field of Participatory Design, it is not primarily an exercise in Participatory Design. Rather it constitutes an attempt to create Participatory Heritage, akin to the heritage projects detailed in Chapter 4. It draws on a definition of “participation” motivated by: efficiency and empowerment

(Bratteteig and Wagner) and participatory media, which emphasises the valuable contributions of volunteer labor, the so-called “Cognitive Surplus” (Shirky).

The “methods and techniques” for studying the particular situation and creating the new design will now be examined in depth, as this chapter progresses.

5.11 Theory and Practice in the Researcher’s Bricolage

As seen in the preceding chapters, innovators in the fields of heritage studies (Smith, Perkin, Giaccardi) and archives studies (Flinn) utilized postmodern critiques successfully to deconstruct previous models of top-down heritage interpretation and practice. In theorizing, they sought (and still seek) to subvert dominant traditional heritage discourses that focus on the fetishization of material remains and ‘expert’ explanation. In practice, they sought (and still seek) to create and/or preserve “bottom up” heritage processes involving the “everyday” experiences of ordinary people. Along with innovative developers like Historypin and Community Sites, these theorist-practitioners create and/or support local heritage communities who “write their own histories” and then archive/preserve them via digital media. Now, using these techniques and inventing some new ones, the current researcher-practitioner seeks, within the design constraints of a co-funded project in a local county, to create a heritage website that, while satisfying funders’ requirements, also promotes engagement via a similar community-sourced “people’s history.”

5.12 Tools and Techniques

Throughout the course of this project, the researcher used a variety of formal and informal tools and techniques to conduct the research. Email served as one of the primary tools that was used for communication – and the resultant email threads serve as a valuable database and archive of the evolution of the project. Personal

emails (eg to the researcher’s supervisor, friends, and family) were valuable tools for ongoing personal reflection and – ultimately – also for reflective insights, learnings, and documentation. In addition to these rich and often informal exchanges, some portions of the project (particularly around the development of the website), centred on versioned and time-stamped Word and PDF documents. Again, this rich archaeological/textual archive has proved invaluable in reconstructing and revealing the evolution of the project. In addition, several online platforms were valuable for collaborating with website developers and with the contributors. Slack and Drupal served as the primary teamwork (slack) and content-management (Drupal) platforms. These both facilitated conversations, content development/sharing, and also – ultimately – aided in the research and reflection required to move the project from “just” website development into the realm of practice-based research.

5.13 Sociability and “Warmth”: People-Centred Images

As a former professional print journalist and magazine editor, the researcher came to the project with a strong sense of the power of images and people-centred narrative to capture viewer attention and interest. While most other museum websites presented an object-focus, it was proposed that we would reach a wider audience with a “people focus”: larger images that included people in action and “heritage story-telling” -- textual narratives that invite readers to imagine how their ancestors lived.

Such an approach has proved fruitful in retailing: A growing body of research on “social presence” in the eCommerce domain demonstrates the increased effectiveness of shopping sites with “socially rich” content (Kumar and Benbasat, 2002; Gefen and Straub 2004; Kumar and Benbasat, 2006). In addition, users

perceive communications media to be “warm” if they convey a feeling of human contact, sociability, and sensitivity (Rice and Case, 1983 ; Steinfeld, 1986 ; Yoo and Alavi, 2001). In 2007, Hassanein and Head showed that shopping websites with people-centered photos and text outperformed those without in several key areas: “[S]ocial presence can be infused into websites through socially rich descriptions and pictures. This in turn, can positively impact the perceived usefulness, trust and enjoyment of a commercial website, which can result in more favourable attitudes towards that online store” (Hassanein and Head 2007, p. 704).

In 2010, when the Anglesey website was being planned, most museum websites focused (visually) on objects, items from their collections, not on visitors or their experience. For example, the homepage of the British Museum on 30 March 2010 (accessed via the WayBack Machine) shows a fairly typical museum design approach: many different boxes that highlight current exhibitions, events, and programmes (see Figure 9, below). Visually, one sees lots of white space and many small-to-medium photos, depicting collection items: a carved wooden African face, a drawing of a woman’s face, a Jadeite axe head, some Chinese pottery, a museum building facade. All of these are physical objects related to the collection. This approach bespeaks a traditional Authorized Heritage Discourse: the museum is a collection of items judged important by unseen others. The function of the museum is primarily to protect and exhibit such items.

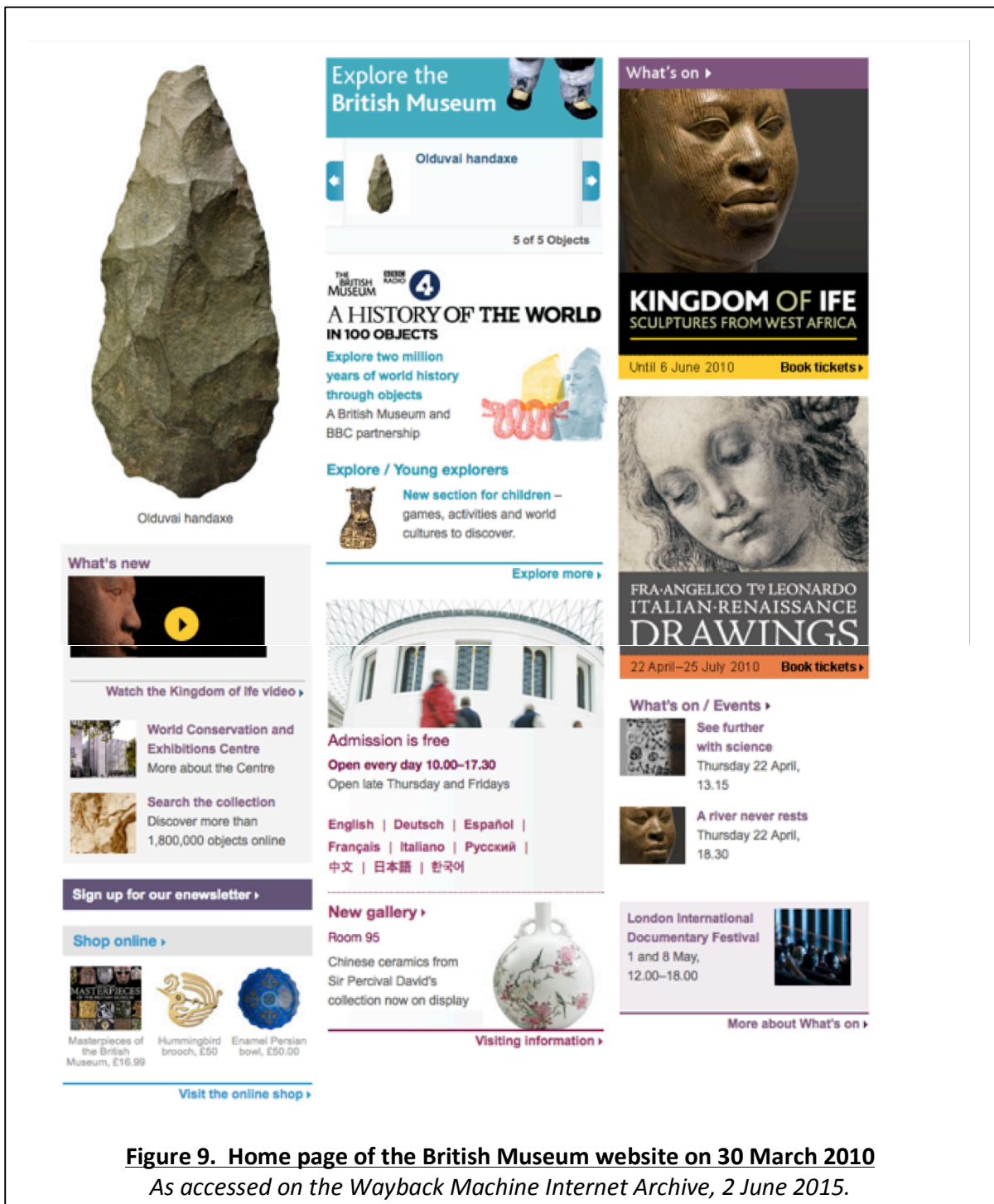


Figure 9. Home page of the British Museum website on 30 March 2010
As accessed on the Wayback Machine Internet Archive, 2 June 2015.

As a case in point, this home page also promotes the museum's much-touted "History of the World in 100 Objects" project, jointly produced with BBC Radio 4 (British Museum, 2010). Four years in the making, the project was hailed as innovative. Every day for several weeks in 2010, the museum's chief presented a 15-minute reflection on the radio, on the historical import of each 100 specially selected objects from the museum collection. Technically "multimedia," the project included a museum exhibition, a book, radio broadcasts and a website. Praised for its "interactive" design, the project's website allowed users to upload images of other objects to add, and users added about 3,800 objects. But these added items and their stories were not folded into the interpretation that was broadcast on the radio or published in the book form. While the "100 Objects" remain today on the museum website, the user-added objects are not included (British Museum, 2010). The interaction proves superficial; only the Authorized interpretation remains permanent.

This object focus was typical for British museum websites in 2010. When the heritage officer and the researcher looked for regional and local heritage museum sites to inform planning, they landed on the website "History of York," a project of the York Museums Trust, which the heritage officer admired for its simple, straightforward design (see Figure 10).



Figure 10: Home page of York Museums Trust

As accessed on the Wayback Machine Internet Archive, 2 June 2015

Initial Anglesey website plans were based on the York website, which remains unchanged from its 2010 version (York Museums Trust 2015a). Like the 2010 British Museum home History page, the York website featured small photos of local buildings and collection items; it remains a “1.0” website – users can access information but they can’t add content or interact socially through it. From the home page, the user can access “trails” (videos, audio and PDF documents with maps that guide users on historical local walks) and contextualizing interpretive content such as an interactive timeline and “themes” narratives. The heritage officer approved this basic structure (themes, timeline, interactive map) for the Anglesey website project. Initially he was satisfied with an information-only website.

The researcher agreed about the features but countered that the York website was far too “dry”; it likely appealed only to people who were already interested in heritage. Like the British Museum website, the York one focuses on objects, not on people and their stories. Larger, people-centered images and people-centered narrative (along with socially interactive features) would likely do more to interest a wider group of visitors. A design was envisioned with spaces for larger images, showing people interacting with heritage, demonstrating a heritage *process* not a *product*. While such images proved harder to find and/or create on a tiny budget, the researcher eventually managed to procure many lively images for the website.

Subsequent research demonstrated that at that time a few other heritage and museum websites were contemplating shifting the visual focus from objects to people. For example, the pioneering Powerhouse Museum in Australia retooled its website in 2004 to promote “inclusion of 'people-centric' images of the Museum on

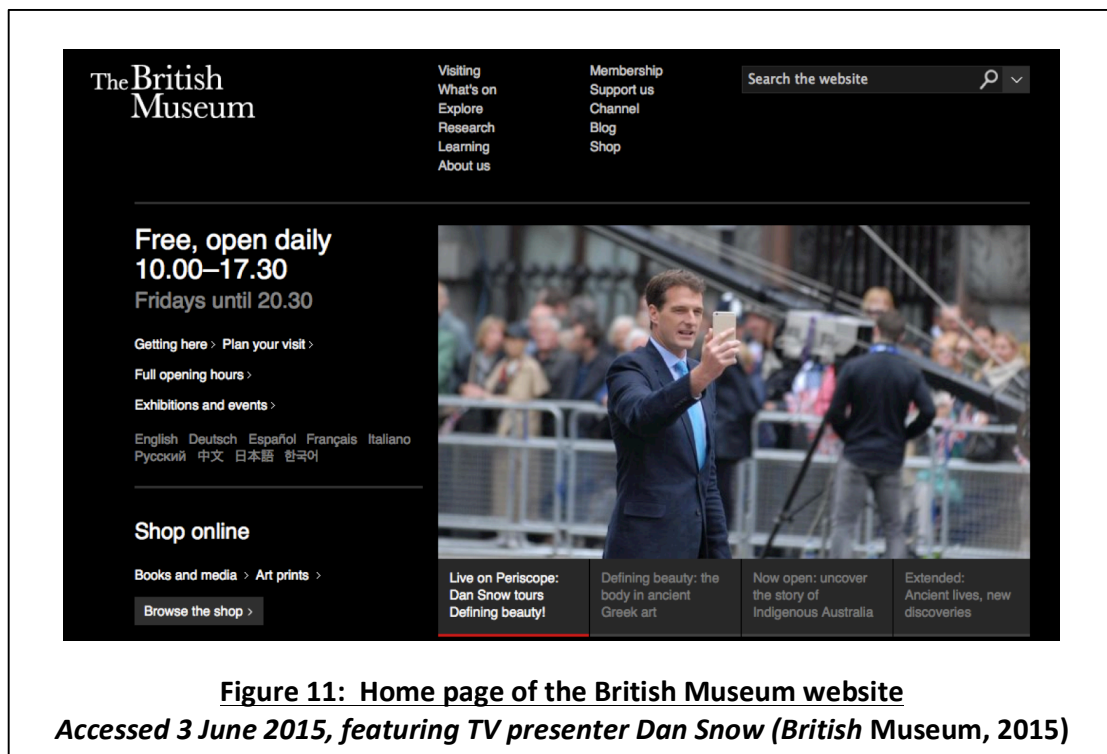


Figure 11: Home page of the British Museum website
Accessed 3 June 2015, featuring TV presenter Dan Snow (British Museum, 2015)

the home page and subsequent page headers - visitors enjoying the 'experience' of the Museum rather than collection objects, for example” (Chan 2007). Today, the British Museum website also features images of visitors (see Figure 11). Smaller images at the bottom of the page show children interacting with collection items, while the prominent main space features an image of a TV presenter who recently visited the museum (British Museum 2015).

5.14 Compelling: People-centred Narrative

In addition to the people-centred images, the researcher argued for livelier, people-centred interpretive narrative. Unlike most other heritage websites of the time, which described objects in collections using dry descriptive text, it was proposed that the appeal would be widened by telling stories instead – using people-centred heritage narrative. A large body of research (Boyd 2009; Young and Saver 2001) supports the view that stories are fundamental to human expression and therefore more interesting and attention-grabbing than non-story text: “Humans live in landscapes of make-believe. We spin fantasies. We devour novels, films, and plays. Even sporting events and criminal trials unfold as narratives” (Gottschall 2012, p.1). Why shouldn't heritage unfold as narrative?

In a 2007 study, Khaled Hassanein and Milena Head compared shopping websites that feature “socially rich” text with those that do not. For example, some users would rate a web page showing a top with basic descriptions; others would see the same page with an added text box, reading in part: “You're stylish. You're confident. Our hooded cardigan tells the world that you are sporty yet elegant with a flair for fashion” (Hassanein and Head, p 698.) Emotive narrative made a difference. Hassanein and Head found that “the addition of emotive text to website design did

significantly impact the perception of social presence” (Hassanein and Head, p 703.)
As they have shown, perceived “social presence” boosts usefulness, trust and enjoyment (Hassanein and Head 2007).

At that time, the text (like the photos) on most heritage websites focused mainly on objects. For example, the home page of the York website features an image of a local landmark called Barker Tower. When a user clicks on it, the text describes this object:

This river-side tower was built in the 14th century. It was positioned at the boundary of the medieval city-centre and, in conjunction with Lendal Tower on the opposite bank, was used to control river traffic entering the city. A great iron chain was stretched across the river between the two towers and boatmen had to pay a toll to cross it. The chain also served as a defence for the city. As early as 1380 Thomas Smyth was named as the tower’s ‘keeper of the chain’ (York Museums Trust 2015b).

Because the website focuses on objects, the text writer must resort to the passive voice: the tower “was positioned,” it “was used to control traffic.”

However a focus on people, the natural agents of heritage actions, allows the writer instead to use the active voice, which many writers and writing coaches consider more compelling: “The habitual use of the active voice, however, makes for forcible writing. This is true not only in narrative concerned principally with action, but in writing of any kind”(Strunk 1918). For example, when planning the Key Places page for Barclodaiid y Gawres, a Neolithic burial site on Anglesey, the researcher avoided simply describing the physical monument, as other heritage

interpreters do, and instead consciously chose a people-centred narrative “angle,” to engage readers’ imaginations:

Awe. You know it when you feel it.
Standing on Anglesey's southwestern coastline, surrounded by sweeping vistas - green rolling hills, the distant mountains of Snowdonia, and the glittering, massive Irish sea - you're quite naturally imbued with awe, the emotion Oxford Dictionaries defines as "a mixture of wonder and dread."
Wonder at nature's beauty. *Dread* at its enormous power.
That's probably how your ancient ancestors felt as well - which may be why some of them chose this spot to build a temple (Anglesey: A Bridge Through Time, 2013a).

The writing draws an emotional connection between readers and their Neolithic ancestors, creating an imaginary bond that might intrigue them into visiting the site.

5.15 Open-Ended, Polysemic, Multivocal, “Bottom-Up” Interpretation

Early in the research about heritage and museum websites, the community-sourced websites called “My Brighton and Hove” and the Jewish Monument Community” were discovered (see Chapter 4 for a full discussion). The first is an open-ended local heritage archive website founded and edited by a community group in England. The second is a community-sourced memorial archive based in Amsterdam. Both arose outside traditional heritage funding bodies; both allow users to contribute as they like, within reasonable limits (items cannot be offensive, racist, indecent or illegal; Mediamatic Collective, 2011e). Open-ended, these archives necessarily portray heritage artifacts as polysemic and present interpretation as multivocal – “heritage” here is defined as the *process* of a community actively portraying and discussing its various memories, opinions, and perspectives. This is the “bottom-up” participatory heritage process described by Nina Simon, Laurajane Smith, Colette Perkin (see Chapter 3), and Andrew Flinn (see Chapter 4).

Inspired by these two websites, the researcher proposed to the heritage officer supervisor that they found a similar community-sourced archive for Anglesey. Following on theories about participatory cultures (Shirky, Jenkins in Chapter 3) and from experience with local people, the researcher reasoned that there were already significant numbers of local “amateur” heritage enthusiasts. If coordinated with a digital infrastructure, perhaps they could seed a local, heritage-oriented collaborative archive. The heritage officer rejected the idea, however. He had already procured funding for *Mona Antiqua* (the larger heritage program of which the website was to play a part) from the European Rural Development Fund, in collaboration with Cadw and the Anglesey County Council. Not only did no vibrant local heritage group exist with which to seed the website community, but more importantly, he stated, funders expected “expert” factual heritage interpretation. The heritage officer would allow some latitude in the interpretation; more imaginative narratives could be included, in order to reach the “bucket and spade brigade.” However all main entries were to be professionally written and reviewed/fact-checked by experts from Cadw and Gwynedd Archaeological Trust. A completely community-sourced website was functionally and ideologically untenable, he maintained. Later on, after further discussion, the heritage officer agreed that to augment the main content with some participatory feature, providing opportunities for users to comment on the interpretation and to upload their own content, such as photos and videos.

5.16 Co-Curation and Local Welcome

If open-ended content was disallowed due to funders’ requirements, the researcher reasoned that the website could at least demonstrate the *concept* of heritage

multivocality by involving local people in the production of the website and allowing some multiple voices, faces, and perspectives to appear on the website – not just in the Comments section. Early in the website’s development, local heritage activists were recruited into participation. The researcher wrote emails, arranged meetings with members of preservation groups, visited the island’s largest secondary school and discussed the project with a deputy headmaster, a media teacher, and a tourism teacher. Local bloggers were sought out to feature in the website’s “Voices” section, to show a diversity of heritage commentators and to encourage further engagement.

From this core, a group of “co-curators” was developed: amateur heritage enthusiasts who could consult and advise on the project. They helped develop the website’s content and served as liaisons with other heritage groups and the local community. The website became, in appearance and in actuality, a group effort.

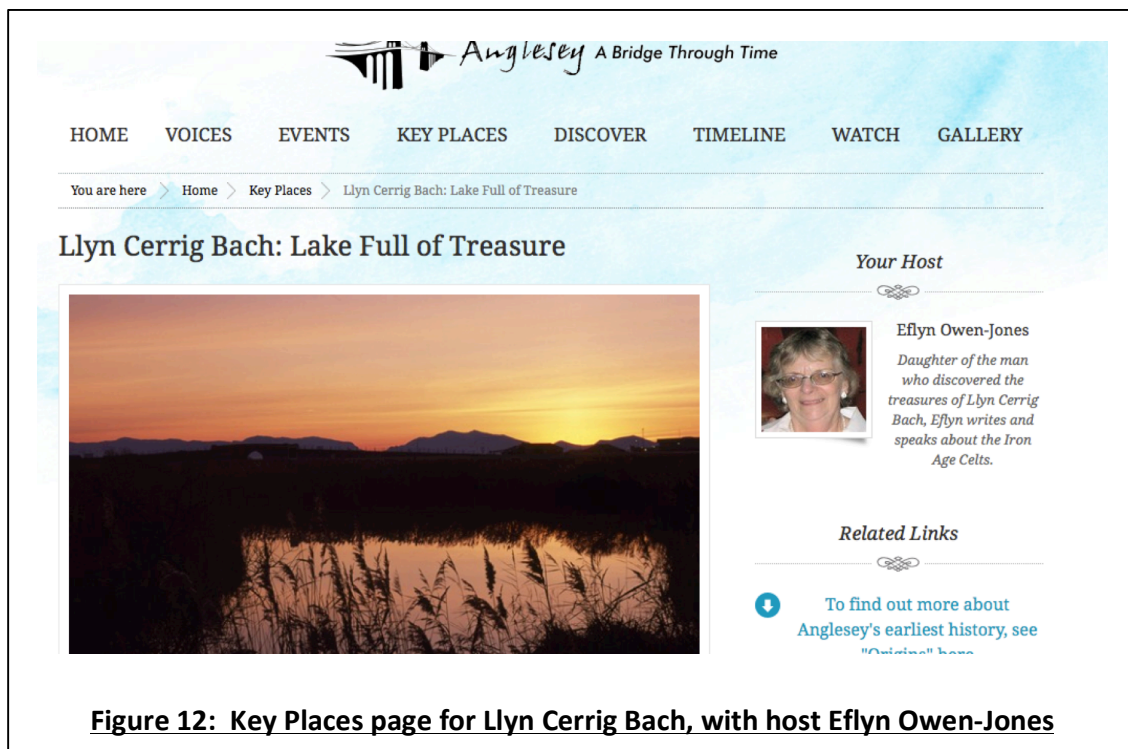


Figure 12: Key Places page for Llyn Cerrig Bach, with host Eflyn Owen-Jones

Co-curators contributed ideas and documents, even wrote content. Most importantly, they also served as “hosts” for heritage sites on the website: on each Key Places page, a small photo and a brief “bio” introduced a local person to provide a feeling of genuine local welcome. Their faces increase the website’s “social presence,” and they also offer interaction via the Comments section (see Figure 12, above).

5.17 Conclusion

In *Heritage and Digital Media*, theorist Elissa Giaccardi writes that heritage projects attempting to engage audiences through new participatory media will need to negotiate many challenges simultaneously: “the loss of curatorial voice, the challenges of multivocality, the redistribution of curatorial activities, and the fluid ‘coming together’ of heritage narratives, the duty of memory and the limits of social syntax of mainstream social media, the digital (un)sustainability of embodied practices and knowledges, and the ways in which participation and dialogue are configured” (Giaccardi 2012, p. 5). That statement applies to the Anglesey project directly. In an exploration of participatory digital media for heritage on the island, the researcher encountered all these multifarious challenges, yet with a bricolage mixed-methods approach, in collaboration with partners in local industry and government, a “praction” research intervention was created. Referencing Fallman’s Interaction Design Research Triangle (Fallman 2008) as a framework, the researcher developed methodological “loops” of practice/design/theory encased in concepts like sociability, warmth, people-centred narrative, and distributed co-curation, for implementation on the website “Anglesey: A Bridge Through Time.” In the next chapter the researcher relates the process of building the website and then presents the finished project as it was intended to be experienced.

Chapter 6: Developing and Presenting the Website

6.1 Introduction

This chapter first describes the process involved in creating the website “Anglesey: A Bridge Through Time,” including: setting up the project, research into the local heritage context, research into mobile apps for heritage, technical development of the website, content development and development of the community behind the website. It is a personal narrative, detailing the experience of developing the site from the researcher’s own perspective. After the discussion of the website creation, the second half of this chapter presents to the reader the completed website through a series of “walkthroughs” and expositions, so that the reader may understand the website as the researcher intended it. Let us begin with a brief overview of the whole chronology and then tell the story of the project in thematic sections.

6.2 Brief Chronology of the Project

The original proposal for the project centred on “mobile apps for heritage,” so the first year of the PhD project (2010-2011) was spent on two major topics: 1) understanding the local context for heritage tourism, and 2) researching the broader “state of the art” around development of mobile apps for cultural heritage. At the end of that year, in the spring of 2011, the strategy changed, as detailed below. Along with the researcher, supervisors at both Menter Môn and Bangor University agreed to focus the project instead on building a website for the island, one that would serve as a “heritage gateway” through which users might more easily find apps or other downloadable content. That spring, the researcher helped to write the

Request for Proposal and started investigating community-sourced heritage websites. By autumn 2011 the team were interviewing software development companies, and the researcher was building a community group to help develop the website.

From January through June 2012, the researcher took an official six-month break from the KESS scholarship to work full-time as the project manager and principal writer/editor for the website, employed by Menter Môn. The researcher resumed studies in July 2012, while continuing to develop content, which was completed by the end of the year. Due to some technical and administrative issues, the website was not launched until July 2013. In September 2013, the researcher took another break from KESS, when she got a full-time position working remotely as a digital strategist for a national non-profit in the US. When that position ended in July 2014, the researcher resumed working on the written portion of the PhD.

Overall, the website project took longer than envisioned. Devising and building both a participatory, multi-vocal website and the community to support it proved to be a large and complex process. Below the researcher discusses the process in more detail, sharing some of the stumbling blocks, along with documentation provided in the Appendices.

6.3 Setting up the Research Project

In the winter of 2009-10, the researcher devised an application idea for Bangor's Knowledge Economy Skills Scholarship (KESS) programme, which uses European Social Fund (ESF) moneys to support graduate research programs that collaborate with industry partners in the Convergence area of Wales. As a former print journalist, the researcher was interested in learning about digital media, so she

started to investigate at the intersection of digital media and tourism, the largest local industry. A month later the researcher sent a proposal about mobile apps to build heritage tourism (See Appendix 1, “KESS Studentship: Proposal Utilizing Digital Technologies”) to Neil Johnstone, heritage officer at Menter Môn, the enterprise agency for Anglesey, and to Dr. Eben Muse, now Head of School and Researcher in Digital Media at Bangor’s School of Creative Studies and Media. After meeting with the researcher, Johnstone agreed to partner on the project, and then KESS chose to fund the research. Muse agreed to act as academic supervisor.

6.4 Understanding the Context

After spending the summer of 2010 researching tourism and mobile apps, the researcher presented preliminary findings at a first official meeting with the supervisors (see Appendix 2, “Using Digital Technologies to Enhance Tourism to North Wales” Powerpoint). Then the researcher began working at Menter Môn offices at least two days a month, which continued through that year. The heritage officer showed the researcher some of Menter Môn’s lesser-known heritage sites, explained the local funding environment and history (see a full discussion in Chapter 2), and assigned several government reports on heritage and tourism.

6.5 Research into Mobile Apps for Heritage

Since the original proposal for the project centred on mobile apps for heritage, much of the first year of the project was spent researching the broader “state of the art” around development of mobile app development in the cultural heritage domain. At year’s end the researcher drafted a white paper report on the subject (see Appendix 3, “Hand-Held Heritage”). At that time, consumers were buying smartphones -- the sort of mobile that contains a web browser and an operating system that can

download software applications or “apps”– at an astounding rate. In just one year, from May 2009 to May 2010, smartphone ownership rose 81%, from 7.2 million UK users to 12.8 million (Ofcom, 2010). As a result, the brand new apps industry was also growing at an astounding rate: for example, on the day the Apple Corporation opened its Apps Store in 2008, users downloaded 1 million apps (Apple 2011) and on 8 June 2015, tech sources were reporting that Apple had announced downloads had passed 100 billion – or 119 apps per Apple user (Fiegerman 2015; CNET 2015).

In accord with this boom, museums and heritage practitioners rushed to develop apps customized for their institutions (Grobart 2011). They produced apps across a wide spectrum, from simple information listings to creative, multimedia immersive experiences. In 2011, for example, the National Trust replaced its printed catalog of 400 properties with an app that gave users basic visiting information about each site (Econsultancy 2010; Wirefresh 2011). Although the technologies were available at the time, the app contained no audio or video extras, no 3-D site reconstructions, no larger commentary or thematic connections between sites. Though it may have helped users looking for sites to visit, the app didn’t offer features that would have enhanced visitor experiences for users once they arrived at sites. In the same year, the US television producer The History Channel exemplified the other end of the app spectrum, with its substantial, multimedia-rich “coffee table app” called “The Civil War Today.” Marking a historic sesquicentennial, the app orients users in time, not space, by offering new daily content to “match” events in the war on the same day, 150 years earlier (The History Channel 2011). Using maps, excerpts from diaries and letters, historic photos and newspaper stories, and a

clicking “casualty counter,” the app was criticized in the *New York Times* as “too immersive” (Heffernan 2011).

Other apps added augmented reality features, social media functionality, and 3-D reconstructions, enhancing a visitor’s “sense of place” in surprising ways. A landmark example is the Museum of London’s 2010 augmented reality app “StreetMuseum,” which offers a “window through time” (Museum of London 2015). The app uses GPS to locate users within the city; then, through the phone’s camera window, the app displays historical images overlaid on the user’s current street views, showing users a London place in two different eras, simultaneously.

After collecting information about extant apps and app developers, the heritage officer at Menter Môn and the researcher considered what sort of app might work best to guide heritage visitors on Anglesey, especially when mobile phone reception was poor in many places on the island (Anglesey Computer Solutions 2011; Isle of Anglesey County Council 2012, p.9). Meeting at his office and also at a day-long Bangor University workshop on apps for tourism, the team discussed budgets, target markets, game formats, and local app developers. The heritage officer suggested the team build an app to allow walkers an interior view of Barclodiad y Gawres, a Neolithic burial mound that is often locked to prevent vandalism. The researcher favored an app that would serve as an introductory driving tour of the whole island. The team struggled with a lack of pertinent information: How many users actually found and downloaded tourism apps? Which features and formats proved useful and visit-enhancing?

A case study might provide answers. That spring the researcher discovered that England’s Cheshire West and Chester Council had commissioned a mobile app

to promote tourism to the city of Chester, about an hour's drive distant. Called "Revealing the Rows," it uses a game format to encourage visitors, singly or in groups or families, to learn about Chester's distinctive architecture (Imagemakers Design and Consulting 2010). The researcher devised a study to investigate user perceptions (see Appendix 4, "Smartphones & Tourism Research"), and on May 29 the researcher met with council representatives to obtain their consent and cooperation. However the study was not completed; over the next few weeks the project's goals changed and the app study was discontinued (see discussion below).

6.6 From Mobile Apps to Building a Community-Sourced Heritage Website

As the project's first year came to a close, it became clear that apps weren't the most effective emphasis for Anglesey heritage. Apps can add new dimensions to digital strategy in well established museums, which can promote said apps through event programmes, social media campaigns, traditional publicity efforts, and their own websites. But there was no museum or similar institution backing the current research project; independent Anglesey heritage enthusiasts had not established any of those promotion vehicles. So, had the Mona Antiqua HTP developed apps, there would be no way to share them consistently, no way to be sure they wouldn't be lost among the thousands already in app stores. Anglesey heritage didn't have a website. In fact, it didn't have a museum. (Although Oriel Ynys Môn, the island's government-affiliated art museum, does offer a permanent heritage exhibition on the island, it has not participated in Menter Môn's efforts to build an island-wide heritage strategy, including the Mona Antiqua HTP, and it declined requests that it take part in "Anglesey: A Bridge Through Time.")

6.7 The Virtual Museum

In the spring of 2011, the researcher attended a lecture by museum technologist Jasper Visser, who was then Project Manager at the National Museum of History of the Netherlands, which he called a “virtual museum” (Visser 2011). Similarly to the situation of Anglesey heritage, Visser’s museum had no “bricks and mortar” counterpart: the museum exists online only, an independent entity. Calling itself the “national home of history and cultural heritage,” that online museum (<http://innl.nl>) now contains thousands of crowd-sourced entries. The researcher wondered, could Anglesey heritage create a similar virtual museum?

The Virtual Museum Transnational Network (also known as V-must, an EU-funded “network of excellence” among museum professionals in 13 countries) defines a virtual museum as:

. . . a digital entity that draws on the characteristics of a museum, in order to complement, enhance, or augment the museum experience through personalization, interactivity and richness of content. Virtual museums can perform as the digital footprint of a physical museum, or can act independently. (Virtual Museum Transnational Network, 2016)

V-must does not state that “virtual museum” only describes a physical museum’s “digital footprint.” This definition allows for ambiguity; it includes online museums that “act independently,” without physical counterparts, like the Dutch history museum or Anglesey heritage. As a footnote to this definition, the V-must website points readers to an attached V-must report (Hazan et al 2014). That report considers as a valid case study – and therefore a valid “virtual museum” -- the project Europeana 1989, an independent website that collected crowd-sourced stories and artefacts celebrating 2014’s 25th anniversary of the fall of the Berlin Wall (Hazan). This independent site would be analogous to both innl.nl and Anglesey Heritage. In

addition, “virtual museum” can *also* be used to describe online collections across real-world museums: The Virtual Museum of Canada, for example, is a digital collection of artefacts from institutions across the country.

For purposes of this research project, the Anglesey project borrows the term “virtual museum,” referencing the V-must definition, in several facets. First, the website aims to complement and enhance – via its “personalization, interactivity and richness of content” -- the experience a visitor might have upon encountering (either in-person or online) the heritage sites of Anglesey. If other online-only museums such as Europeana, inl.nl, and the Virtual Museum of Canada can be classed as virtual museums, why not Anglesey Heritage?

After the lecture by Visser, the question for the researcher became: Could an online-only “virtual museum” draw visitors to Anglesey?

6.8 Building the Website

Buoyed by these examples of other fledgling virtual museums, in the spring of 2011, the researcher proposed to Menter Môn that the team change the strategy’s order of priorities. As part of its Mona Antiqua Heritage Tourism Plan, Menter Môn had already procured funding to create an Anglesey heritage website, so now the team decided to focus the PhD project on building that website into a comprehensive, participatory virtual museum. It would serve as an inviting introduction to Anglesey heritage, from which the team could “hang” apps, along with other digital objects collected by Menter Môn, such as walking tours on MP3, maps, artist’s renderings of historic places, and 3D video reconstructions of heritage buildings. In addition, as the team met with software developers, the team learned more about the then-new concept of “responsive design,” wherein websites can

render dynamically on mobile screens, offering content and locative information on a par with apps. All told, with the Mona Antiqua Project's limited funds, the team decided that using the PhD project hours developing the website would more effectively promote Anglesey heritage. This chapter will now discuss website development across three themes: technical development, content development, and community development.

6.9 Website Technical Development

In May and June 2011, the tender process began, through which the team worked to find a suitable company to create the software and the visual design for the website. With input from Menter Môn's heritage officer, the researcher wrote and edited the Request for Proposal (see Appendix 5, "Invitation To Tender"). The document describes the ideas and goals behind the website:

[W]e seek to create a website that presents Anglesey's heritage in a fresh, engaging, interactive manner. With features like a friendly Introduction, detailed Timeline, and separate pages on historical themes (e.g., Origins, Spiritual Landscapes, Industrial Heritage), the website will serve as a first stop for any and all interested in Anglesey heritage, bridging together tourists and locals with varying interests. . . . [T]he site will also integrate core concepts of Web 2.0, fostering participation and creating community by allowing users to share their own content, such as comments, oral histories on video, family photos, via FaceBook or Twitter or a Flickr link (Appendix 5, "Invitation To Tender," section 1).

The Request for Proposal also stipulated that, using a password, "trusted users" would be able to login to the website "to change their content (e.g. an event)" ("Invitation To Tender," section 11). The RfP also incorporated various technical requirements inserted by IT officers from the Isle of Anglesey County Council (IoACC), which was slated to take over hosting the website, after development. The Menter Môn heritage officer posted the tender on Sell2Wales, a Welsh government

procurement portal, which facilitates public-sector tendering in Wales (Sell2Wales, 2015). Over the summer of 2011, several companies contacted Menter Môn with enquiries; by September there were six official tenders submitted.

After reading all six tenders, the researcher analysed the features they offered (see Appendix 6, “Anglesey Heritage Website Tender Analysis: System Features”), and on 23 September the researcher gave a presentation evaluating the six to Menter Môn and to IoACC’s marketing and IT officers (see Appendix 7, “Anglesey Heritage Website Tender Evaluation Meeting” Powerpoint). Only three of the six companies offered preliminary page designs to consider. Of these three, only two proposed designs for that website that included any participatory elements or social media integration – a primary goal explicitly stated in the tender document. Both of these also provided references – links to other websites they’d designed with integrated social features and growing online communities. One of these two set a price tag for the completed site at £129,000. The other, Rippleffect, a software design firm with offices across England, said they could complete the project for a third of that price. (At that stage, Menter Môn was not giving any pricing figures, but it hoped to find a developer to agree to a figure closer to £35,000.) Rippleffect’s proposal answered nearly all the requirements of the tender: an eye-catching preliminary design, facility with multimedia websites, social media integration, proven experience with building online communities, and an acceptable pricetag. The only question at that point was whether Ripple had adequate experience building bilingual websites; the one bilingual example it provided wasn’t functioning properly at the time, so adequate analysis was impeded. For all the reasons stated here, the researcher’s presentation argued that the team hire Rippleffect.

At that meeting, however, the head of IT at the county council argued for a different candidate. She favoured hiring the same local contractor who had built the council's then-current site. That company's proposal offered no preliminary designs to evaluate; its previous clients' websites contained no multimedia content and no social media integration. Despite having signed off on the RfP, which specified a participatory approach, the IT head argued that the team should go with a local provider who had no participatory experience, because that company was familiar to the council and had proven experience in producing Welsh-English bilingual websites. Choosing that company -- and thereby most likely a greatly reduced blueprint for participation on the resulting website -- posed the least risk to the council and was therefore a better choice, according to the IT head.

The group agreed on a compromise. The team invited three of the six applicants in for follow-up interviews: Rippleffect and two North Wales companies who were known to the council and had previously produced Welsh-English websites. In the interview invitations, the team requested that the companies bring two mock-up designs, an outline of the site's information architecture, and a breakdown of costs. For that set of meetings, the researcher prepared and circulated via email a provisional set of questions to ask the companies in our interview session (see Appendix 8, "Preparing for Round 2: Interviews with Web Developers"). This document reiterated the participatory vision for the website, as stated in the RfP, in order to assess the applicants' understanding. Section 3 addressed participation:

3. Social Media, Web 2.0, interactive elements.

A. Does the proposed website include social media? At what level of integration?

1. Links to Facebook page, Twitter feed, Flickr group, YouTube channel
2. Live Twitter feed on homepage, embedded YouTube channel on homepage
3. blogs, guest blogs
4. Allow registered guests to upload content?
5. email newsletters

B. How much experience does the company have with social media? Can it provide guidance on best practice? (Appendix 8, "Preparing for Round 2: Interviews with Web Developers," section 3).

In a follow-up email to the heritage officer at Menter Môn, the county council's head of IT responded to the proposed interview questions (see Appendix 9, "Email 12 October 2011"). She queried proposed items related to version control and web hosting, but she said nothing about participation or the social media section.

At the interviews, Rippleffect's team of three performed well. They answered questions confidently and professionally, referencing a full cost breakdown and an information architecture schematic. They also reassured interviewers about their ability to produce a bilingual website. Most importantly, unlike the other two companies, Rippleffect brought preliminary designs that were not only responsive to the project outline (including multimedia and user-generated content and structured around a Timeline, Themes and Places) but also visually stunning. Although initially reluctant, the county council were won over by Rippleffect's professional manner and design capability.

In November and December 2011, the larger committee met again, to refine ideas for the website and to define the researcher's official role in pursuing them. The researcher requested and obtained an official leave from the academic portion of the KESS programme for the period January to June 2012, so the researcher could work full-time as Project Manager of the website and its principal writer/editor. The

researcher drew up a preliminary Gantt chart for the project (see Appendix 10 “Gantt Chart”), which would prove optimistic, and a “flow chart” document, an early attempt at compiling an information architecture for the website (see Appendix 11, “Flow Chart Page 1” and Appendix 12, “Flow Chart Page 2”).

Technical issues pursued in January, February, and March 2012 included sorting out: the website’s hosting language, bilingual functionality, and user sign-in functions. Though Rippleffect (and others who tendered proposals) requested to develop in PHP (Hypertext Preprocessor scripting tool), an open-source and powerful development language widely used in web development, IoACC officers insisted that the site be built in the proprietary language ASP.net, because, as the designated hosts for the completed website, they claimed that their servers could only host ASP.net sites. Rippleffect had to concede; they also had to agree to build two interlinked websites, one in English and one in Welsh, to comply fully with IoACC’s bilingualism policies, and the team needed to devise how the two websites could interact. The researcher traded emails with the Rippleffect designers on a daily basis. For an example, see the 15 March email to them (including folks from Menter Môn and IoACC), in which the researcher requests more functionality for the “Places” and “Themes” pages (see Appendix 13, “15 March email re: Master Pages”). The team didn't agree on a final design for the crucial “Places” pages until 4 May.

Most of that spring was spent writing and editing content while growing our community support for the project (see discussions below). Between regular phone meetings, Rippleffect slowly refined their original designs and waited for finished content to upload. Menter Môn and IoACC signed off on completed designs on 15 June, and Rippleffect promised that within weeks they would provide a prototype

website on a temporary server, where the researcher could begin to upload content. That didn't materialise, however. The researcher sent them several finished drafts and Rippleffect people promised to upload them, so the researcher could see what they'd look like, but that didn't happen. Despite many emails and phone calls, they didn't give us a working prototype until 14 September. During the week of 20-26 September, Rippleffect trained the researcher to use the Umbraco CMS ("content management system"), the software behind the website, so that the researcher could begin directly uploading content. At the same time, the researcher learned how to use Mantis, which is Rippleffect's separate system for tracking "tickets," technical questions or problems that need to be addressed. For example, the researcher requested that Rippleffect change the CMS to allow her to insert additional images within the body text on most pages; they adjusted to allow that functionality. The researcher also opened several tickets in reference to image sizes, which were not stipulated clearly by the designers. In addition, the researcher lobbied for visible photo captions on the pages, because the image owners stipulated prominent crediting.

Another issue arose with the Events feed. In the original plan for the website, IoACC suggested a direct RSS feed from their events listing on their general tourism website to a box across the bottom third of the heritage website's home page. Rippleffect's design for the home page, which IoACC signed off on at several points, required an image for each event shown. But the larger IoACC feed changed over time, and by September 2012, when the heritage website was nearing completion, the IoACC IT lead informed the team that the feed did not include images. At that point, the researcher volunteered to edit the RSS feed as it came into the heritage

website, both to remove non-heritage events and to add images to illustrate heritage events, in order to avoid having to redesign the home page. Minutes from a December 2012 meeting show that the team were still discussing tech issues related to the Events feed at that late date (see Appendix 14, “Meeting re: Documenting Technical Spec Expectations for Rippleffect”).

At an all-day meeting on 9 October at Rippleffect’s Liverpool offices (also attended by Menter Môn’s heritage officer and three representatives from IoACC), representatives from the local council voiced some concerns over the Comments and user-generated content sections. What if users posted inappropriate photos or comments? asked the council’s IT head. Rippleffect developers then demonstrated how Disqus, the third-party Comments software, used powerful language filters to flag up suspicious words to moderators. In addition, Disqus and the image and video galleries could be set to hold back all publication of comments until a live moderator viewed the content and ticked a box to accept it onto the website. What if a user posts a comment critical of the council? asked the IT head. The researcher then suggested that the team work together to create a moderation protocol, wherein moderators could hold back such a comment or alternatively, publish it with a polite response and a promise to forward the concern to a responsible council employee. The IT subsequently declined to answer emails about the proposed protocol.

At another meeting with IoACC on 15 October, several other technical issues surfaced. Much of October and November were taken up by translation issues. To demonstrate the complex issues involved, the appendix includes an email to one of the translators (see Appendix 15, “Email to Sara Elin Roberts”). Most of the technical problems were resolved by the end of year, and all content was uploaded by mid

January. At that point, Menter Môn and IoACC agreed to launch the website on St. David's Day (celebrating the patron saint of Wales), 1 March 2013, and the researcher prepared a draft press release (see Appendix 16, "The Future of the Past"). On 31 January however, the IoACC IT officer announced that, in order to accommodate the website (which they knew to be coming for a year at that point), they'd need to set up a new virtual server. That process took another several weeks, so the launch was postponed further. In April, Menter Môn decided it wanted, counter to earlier plans, to add a "splash page" to the website, in order to allow users to enter the site via its new QR code. When IoACC officials discovered that the code brought users to the English side of the website, they declared that the team needed to develop an additional splash page with two QR codes, one linked to each language version of the website. Additionally, there was confusion about whether IoACC had purchased the correct domain name for the website. Then IoACC took issue with several English-language labels used in the Disqus software. The launch was further delayed while IoACC and Rippleffect researched how to get these phrases translated for use on the Welsh pages. The website finally launched 23 July 2014.

6.10 Community Development: Participation and Distributed Co-curation

Once the website's technical team was in place, the researcher began gathering a community to support the site. Like the dedicated teams of volunteers behind Wikipedia or Ushahidi or Quora (see the discussion of Participatory Cultures in Chapter 4), the researcher hoped to build a team of Anglesey heritage enthusiasts in a system of "distributed co-curation," in which volunteers would add perspectives, augment interpretation with a visible multivocality, and update the website to keep

costs down and promote long-term sustainability. Several months before the researcher had discovered the community-sourced heritage websites “My Brighton and Hove” and the Dutch “Jewish Community Monument” (See Chapter 5), and she hoped to create something similar on Anglesey.

However the advisor at Menter Môn cautioned that no vibrant community existed on Anglesey. Further, he was certain his funders would demand traditional, authoritative interpretative text on the website. The team could try to make it warm and interesting, but the main essays needed to pass the scrutiny of acknowledged experts from Cadw or Gwynedd Archaeological Trust. So the researcher proposed a more multivocal hybrid: we’d augment the friendly but fact-checked main interpretation with “Voices” (blog essays of a more personal nature), Comments, and user-generated content like photos and video. In addition, each “Places” page would have a visible, smiling, local host – a co-curator/specialist volunteer to add content, welcome users, and moderate the conversation. The idea was to start the website off as a community effort and through live events and outreach, grow it into a larger, island-wide heritage conversation.

This discussion and compromise regarding the website’s community constitutes another triangular “loop” in the methodology of the design interaction process, as described by Fallman and discussed in Chapter 5. The researcher, informed by insights from Critical Heritage Studies and participatory elements of Media Studies (the “Design Studies” corner of the triangle) and by participatory practice from other community websites (democratizing ideals of “Design Exploration”), originally sought to build a Design Exploration experiment in heritage participation. However, due to the funding constraints of her real-world partners

(located in Fallman's "Design Practice" corner), the methodological loop, incorporating all three elements, generated a practical compromise, which the researcher titled "distributed co-curation": the active involvement of community members in developing and presenting the site online, in order to seed a participatory heritage community.

This approach was adopted by the heritage officer at Menter Môn and also discussed in development meetings with the officers from the Isle of Anglesey County Council. As a result, references to participatory media, user-generated content, and volunteer contributors appear in the original tender document, the Request for Proposal, which was approved by the Council as co-funders. For example, section 5 lists one of the purposes of the website as "Allowing users to discuss events, share content, and give feedback" (See Appendix 5, "Invitation To Tender," section 5). Section 15 reads:

Security

Appropriate security must be in place to manage user access to the repository, including:

- support for multiple security and access levels
- applying security levels to specific users, roles and groups
- full audit trails of critical actions by users
- explicit support for decentralised authoring (See See Appendix 5, "Invitation To Tender," section 15)

According to the RfP, the website was to be open to "decentralised authoring" by a number of contributors across several categories such as "users, roles and groups."

Section 11 of the RfP further describes the "roles" of website contributors, each requiring different levels of access: administrators, content authors and "trusted users." It further requests that the developers create access for "Trusted users –

with the limited ability to change their content (e.g. an event). This role would need a secure password through the browser interface” (See Appendix 5, “Invitation To Tender,” section 11). Clearly then, in November 2010, when when the RfP was jointly written and edited by Menter Môn, the researcher, and the IoACC, all parties favored a participatory design, open to contributions and modifications from a community of sources.

In November and December 2011, the researcher began to recruit a team of supporters and co-curators, starting with archaeology lecturers retired from the University. With help from Menter Môn, the researcher contacted local heritage projects, groups of volunteers who had gathered to support individual heritage sites on the island. Through the smaller groups, the researcher sought out heritage enthusiasts with track records of volunteerism, people well known in the community for their commitment to heritage. Meeting in coffee shops or private homes, the researcher explained the project; sometimes people demurred the invitation, suggesting more tech-literate comrades. One volunteer, also a teacher in an Anglesey secondary school, invited me in to meet with the headmaster, to discuss how to include pupils’ ideas into the website design and goals. After the latter approved me, the first teacher introduced the researcher to a media studies teacher and an instructor in a tourism course, part of the Welsh baccalaureate. The three talked about possible ways the researcher could involve pupils in the development of the site, and the researcher included these teachers in subsequent email newsletters on the project.

Over a few months, the team built up a diverse and interesting group of “co-curators” and supporters. One member, a woman in her 70s, is the daughter of the

local man who discovered the internationally significant Iron Age horde at Llyn Cerrig Bach. Another member is an archaeologist-turned-Welsh-language-music-producer-turned-tour-guide. As the researcher refined the co-curation concept, she looked for specific heritage enthusiasts – local experts on specific sites who might serve as “host” for the web page about that site. For example, Penmon Priory consists of a medieval monastery site which is now a parish church, plus an ancient holy well and a dovecote. The local rector, who regularly interacts with tourists at the physical site, agreed to provide a unique local welcome on the website.

Different co-curators brought different contributions to their hosted pages. Some gave opinions on the writing, others suggested links or related resources. One archaeologist, co-curator for the Barclodiad y Gawres site, contributed professional sketches she’d made of the site’s floorplan and its stone carvings. Another, co-curator for Din Lligwy, wrote a personal essay reflecting on how his site helped him to feel connected with his Celt ancestors. Others linked to their pages from other heritage websites and spread the word about our project in public gatherings. All learned how to moderate comments on their pages; all contributed photos and short biographic descriptions to introduce them visibly as page hosts.

In addition to the ten “hosts” for the first ten “Places” pages, the researcher found other local writers to provide personal reflections for the “Voices” section. Anglesey’s current Chief Druid, head of a contemporary pagan group, wrote a moving piece about Bryn Celli Ddu, a Neolithic burial mound. A local memoirist contributed three essays about growing up in Amlwch during the Second World War. An Anglesey historian wrote about the work of medieval poets on the island. Then the researcher found historic essays in the public domain on Anglesey events by

Charles Dickens and Dafydd ap Gwilym, a 13th century poet. The researcher also obtained permission to use an essay by celebrated poet RS Thomas, about his Holyhead childhood. (These pieces are all highlighted in the later section of this chapter titled “Presenting the Website.”)

After an enthusiastic half-day meeting about the project, an archaeologist/ education officer from the National Museum of Wales joined the website’s “Friends” list. He set up appointments in Cardiff that December for the researcher to meet the museum’s head of Digital Media and its Curator of Contemporary Collections. Later that year, when another website supporter, a professor and a long-time Anglesey heritage advocate, met with the Director General of the National Museum of Wales, he insisted that the researcher fax a memorandum to the director about participatory heritage and the plans for the website (see Appendix 14, “Dear Mr. Anderson”).

Through the development process the researcher kept these curators and supporters informed via personal emails (for an example, see Appendix 18, “Dear Eflyn Owen-Jones”) and group newsletters (e.g., see Appendix 19, “1 March Team Email”). The researcher also gathered volunteers several times for meetings, in order to bond them as a group, to show them the website’s progress and to teach them how to use website functions like Disqus, the comment-moderating software. By February 2013, all ten hosts were fully trained and ready to facilitate discussions on the website about their designate heritage sites. In addition, “Voices” bloggers and other supporters were ready for the launch, prepared to help promote the website across the island and to help develop new content.

In addition to forming the community group, the researcher lobbied continuously to open the website to contributions from the community. From the beginning the Request for Proposal included ideas for integrating user-generated content such as comments, photos and videos. One of the reasons the researcher supported Rippleffect in the tender process was its innovative participatory design work, as evidenced by its lively digital platform for interaction among Everton fans (Everton Football Club, 2015). As the Anglesey website progressed, the committee (Menter Môn, IoACC, and the researcher) decided the budget didn't include the addition of an entire forum area for users, but the team agreed to encourage user interaction through the Comments functionality, along with a "Gallery" area for user content and a "Watch" area for shared videos. Although council representatives expressed concern about legal implications related to inappropriate or infringing user content, the team compromised by structuring the website so that user photos and video were not stored on it but only linked to it via Flickr and YouTube (and only after moderator approval). In addition, the team installed third-party Comments moderation via Disqus, which automatically blocks offensive language and doesn't allow Comments to show until after moderator approval.

In addition, to further develop the Anglesey heritage community, in November 2012, the researcher started a Facebook group devoted to it, and the researcher added content to it at least weekly throughout 2013. Moreover the researcher also started and maintained a Facebook page and linked accounts on Twitter, Flickr, and YouTube, working consistently to generate conversations related to the topic and the website (see the section below titled "Presenting the Website"). In addition, the researcher investigated the possibility of inviting participation via the

local newspaper. For example, the researcher wrote a blurb for the “community news” section (see Appendix 20, “Tell your island’s history”), but Menter Môn never approved the content. In addition, the researcher wrote a full-page open call for contributions, to appear permanently on the website. On the home page’s carousel, which rotated among 5 entries, one box features a photo of Menai Bridge and “Welcome to Anglesey’s Community Heritage Website.” Originally, this box linked to a full-page description of the volunteer group behind the website, which the researcher wrote, with an open invitation to meetings and contact information. After launch, however, the council disabled that link, so the page is no longer available online. (See “Ongoing Life of the Website” below for a discussion of changes the council made after launch.)

6.11 Content Development

Along with the website’s more than 200 images, the estimated 25,000 words of content took over a year to research, edit, and write – about twice as long as the researcher had predicted. It was an arduous process, full of discussion and negotiation between stakeholders.

As described in Chapter 5 (Methodology), the researcher sought to develop content that would increase tourism footfall via four main ideas: 1) “warm,” sociable, people-centred images, 2) compelling, people-centred narrative, 3) a multi-vocality that would encourage community participation via user-generated content features and social media, 4) Co-curation and a local welcome. While the theoretical underpinning for these ideas is discussed in another chapter, this chapter demonstrates how these ideas were fulfilled in the website “Anglesey: A Bridge Through Time.”

Beginning in November 2011, just after the team began working with Rippleffect to create the website, the researcher began writing and editing pages. Since the team had discussed the idea of adopting a warm tone during planning meetings, Menter Môn and IoACC asked for an early draft entry to examine. On 1 December, the researcher sent the first draft for a piece on Santes Dwynwen, the medieval Welsh saint who lived at Llanddwyn island, off Newborough Warren on Anglesey (see Appendix 21, “Dwynwen Draft 1”). Although legend of Dwynwen is taught in Welsh schools (and so well known to local residents), it’s not widely known outside Wales and not routinely used as an Anglesey heritage tourism resource. Response to the draft was mixed but mostly positive. Later the researcher grew to dislike the draft’s ending, so she changed it. Also, illustrating the story proved difficult; the researcher couldn’t get permission to use the images shown in the draft. Eventually a Welsh publisher of folk tales allowed the project free use of the cover illustration of its children’s book on Dwynwen (*Anglesey: A Bridge Through Time*, 2013b).

In December and January, the researcher began work on the interactive Timeline feature, which tells the entire history of the island, from the Ice Age forward, in 93 items, each with a large image to illustrate it (“*Anglesey: A Bridge Through Time*,” 2013c). The researcher hired Phillip Steele, a local heritage writer and children’s book author, to compile the text items, which he completed in a month. The photo research, conducted by the main researcher, took far longer.

As a non-profit heritage tourism outlet, the website is allowed free use of images from Visit Wales and Cadw, so the researcher began hunting through their large online image collections. Contrary to the website’s goals, however, these

collections contain very few people-centred images. For example, Visit Wales' online photo resource labeled "Ancient Sites, Neolithic to Iron Age" contains 248 images, only 10 of which include people with the monuments – and none of these are on Anglesey (Visit Wales 2015b). In Visit Wales' online photo resource called "Churches, Chapels, and Sacred Sites," there are 468 photos of churches across Wales. None of these contains a person, excepting human depictions in stained glass or sculpture (Visit Wales 2015c). For photos of its monuments, Cadw depends primarily on Visit Wales imagery. Cadw does however maintain its own collections of artists' reconstructions of heritage sites. These drawings, which sometimes include depictions of Neolithic people, for example, are available upon request.

For the Timeline, and elsewhere on the site, finding images to depict Celts, Romans, and specific medieval Welsh people proved very difficult. At that time, Cadw had begun hosting events in their properties that featured small historical reenactments with "Roman soldiers." Photos of these events appeared on Cadw websites, so the researcher enquired about re-using them (and editing out the anachronistic modern spectators in evidence at the images' perimeters). But due to Cadw's internal structure, events photos often didn't accrue to the official collection of "approved heritage imagery," so the photos officer could not provide them for re-use.

BBC websites contain hundreds of suitable images of Celts, Romans, and medieval kings and knights, but at the time, the corporation did not allow affordable re-use for non-profit or government agencies. In response to specific photo queries on behalf on the Anglesey website, the BBC requested £240 per image for every five

years of website use. Since the website project would need about 200 images, that per-image sum was out of the question.

Eventually, the researcher acquired the necessary images from a number of sources, including: the IoACC's collections, the county archives, local re-enactors who donated content on request, Wikimedia Commons, the National Library of Wales, and the National Museum of Wales. In addition, for about the same price the BBC required per photo -- £200 total -- the researcher found suitable images for about 30 important Timeline events on internet stock sites (For example see consecutive Timeline entries for the years 971, 987, and 1075. "Anglesey: A Bridge Through Time," 2015c.) Each Timeline item was later examined and approved by local heritage experts.

Perhaps the greatest challenge in content development for the website came in the form of the "Themes" essay on the Welsh "Princes," where so many theoretical and practical issues intersected ("Anglesey: A Bridge Through Time," 2013e). At the time, Cadw was developing guidance for interpretation of 12 pan-Wales storylines (Cadw, 2015). Six of these the team found relevant to Anglesey and so developed "Themes" essays on each, using the relevant Cadw story icon, to contextualize the stories behind the heritage sites on Anglesey and connect them across Wales (Anglesey: A Bridge Through Time, 2013d). In May 2010, Cadw published its guidelines document "Interpretation Plan for the Princes of Gwynedd for Cadw," written by PLB Consulting Ltd of North Yorkshire (PLB Consulting Limited, 2010). That report contains six pages of background information, 12 pages of history summary, and 80 pages of further analysis. It criticizes traditional existing interpretation for "use of specialist technical, military, and architectural information

in an academically rigorous format,” “a lack of welcome,” and a “lack of the necessary spark of interest” (PLB consulting, 2010, p.6). Further, the report makes ten strategic recommendations, two of which align directly with stated goals of the current project: “Adopt an inclusive, audience focused approach to interpretation and engagement,” and “put people and their stories first, using engaging narratives . . .” (PLB consulting, 2010, p.7).

Unfortunately, the 100-page guidelines document doesn’t offer a single *example* of “engaging narrative.” In fact, when the report itself relates the heritage in question, across 12 single-spaced pages, it uses neither narrative nor imaginative language. In place of a lead paragraph with an “angle” to grab attention, the report begins with this paragraph:

Medieval Wales was a fragmented land of many kingdoms and dynasties, with four main territories: Gwynedd, Powys, Deheubarth and Morgannwg. Gwynedd and Powys had emerged following the departure of the Romans. Morgannwg was partly conquered by the Normans and thus did not survive as a kingdom into the 12th century, whereas Gwynedd came to dominate the rest of Wales in the 13th century. Gwynedd was naturally divided by the Conwy with the land to the west forming the heartland of the kingdom, backed by the fertile grain producing areas of Anglesey and the Llyn peninsula. The Perfeddwlad or middle country to the east of the Conwy was frequently prone to attacks from across the river Dee, either from Powys or from the Earl of Chester. (PLB Consulting, p. 9)

By contrast, here is the lead for the website’s Themes essay “The Kingdom of Gwynedd: 800 Years Strong” (which appears under a photo of two knights in a sword fight):

Quick Quiz: Which of the following statements is true?

1. Old Welsh was once the language of most of Great Britain.
2. The Welsh people are descended from the original inhabitants of the British Isles. They’ve been here far longer than the Anglo-Saxons, who

emigrated from Germany and later became known as the English.

3. Anglesey was once the centre of an independent Welsh country. From the Anglesey village of Aberffraw, a fierce dynasty rose that ruled over North Wales (and at times Mid- and South Wales) for over 800 years - three times longer than the United States has existed and eight times the age of Queen Elizabeth II's dynasty, the House of Windsor.

Hah! *They're all true.*

Hard to believe? Well, if medieval Welsh history wasn't taught in your school, for some reason or other, now's the time to find out more.

Let me tell you a (true) story . . . (Anglesey: A Bridge Through Time, 2013d)

Instead of a list of facts, this second, audience-focused approach is aimed at attracting the website's target demographic (families from Northwest England) (Beaufort Research, 2009). Borrowing the format of the English pub quiz, the lead captures reader attention by asking a question, an old journalism trick. It follows with three facts that – while central to UK history -- are highly surprising to most non-Welsh tourists. In fact, they were surprising to the researcher, an American who had already *lived in Wales for 8 years* at that point.

When the project's Menter Môn supervisor requested that a colleague at the Gwynedd Archaeological Trust (GAT) fact-check the essay, the latter responded:

The first three questions are trick questions in that none are true in their full sense, but all are partly true. The first paragraph explains the language issue to some extent, but Old Welsh refers to the Welsh of Taliesin and Aneurin of the 6th century, by which time it is unlikely to have been the common language of all Britain – certainly not Scotland where the Pictish language had developed. The text also suggests large-scale movements of people from east to west, whereas genetic studies suggest little movement of people, but rather a greater genetic mix, with the implication of a language change, but not a population change.

The potted historical biographies are ok as far as they go, but little archaeology in there at present. (See Appendix 22, "GAT email")

Together the supervisor and the researcher then doubled-checked the facts with other language experts; the team decided to leave the text as is.

This exchange however demonstrates a widespread conflict in the field: heritage experts tend to reject any interpretation they regard as oversimplifying a long and complex era. But compelling storytelling almost always requires some degree of simplification, in order to create and maintain drama or tension. Had the three questions been edited to reflect the exact historic precision the GAT expert recommends, they would necessarily have been too long and complex to grab attention. Writing imaginative heritage interpretation requires a leap of imagination, into the audience's frame of reference, into format, vocabulary and tone that speaks to their experience, into facts that can be digested easily and enjoyed. This imaginative leap constitutes the audience focus that is often lacking in heritage interpretation.

Arguably a website's most important content comes at the top of its homepage. At the start of the project, representatives from both Menter Môn and IoACC seemed content to keep the website's name and URL aligned with then 8-year-old Mona Antiqua Heritage Tourism Program, but the researcher argued against that plan. The name refers to an important book, *Mona Antiqua Restaurata: An Archaeological Discourse on the Antiquities, Natural and Historical, of the Isle of Anglesey, the Ancient Seat of the British Druids*, by Henry Rowlands. First published in 1723, it is one of the first histories of the island and a landmark in heritage interpretation. Even as late as Summer 2012, Menter Môn continued publishing heritage brochures under the "Mona Antiqua" banner (Menter Môn, 2012).

To people who live on the island, especially those residents who care about history and heritage, the Mona Antiqua name is resonant, meaningful. To everyone else, perhaps not. In meetings and emails, the researcher argued that if the team

wanted to encourage tourism, the team needed to take a consumer-centred perspective; the team needed a name that had meaning to people in the target demographic: caravan-hiring families from northwest England (Beaufort Research, 2009). For the domain name, the researcher favoured a simple address that included the two concepts most basic to the site: the team agreed on www.angleseyheritage.com. In creating a name/logo for the site (and for an events programme to support it), it seemed best to avoid the terms “heritage” and “history,” which visitors might connect with a disliked school subject. Eventually the team hit on the idea of a “bridge through time,” which combines an active trajectory through time (perhaps conjuring up sci-fi fantasies of time travel) with an image of Menai Bridge, one of the UK’s most significant historic bridges and a principal gateway to the island (see a memo on the name in Appendix 23, “4 July email to Iwan Huws”). The researcher then worked up several visual ideas for the logo (see Appendix 24, “Bridge Through Time Logo Concepts”). After IoACC stipulated that the team use its proprietary “Anglesey” type font in the logo, Rippleffect designers finalised the logo.

6.12 Presenting the Website

This section presents the creative artefact associated with this practice-based PhD project, the website “Anglesey: A Bridge Through Time” (www.angleseyheritage.com). The website is currently live and can be viewed online, but that version differs significantly from the researcher’s design intentions. As explicated elsewhere in the dissertation, the website was turned over for hosting to the local county council, just before launch in July 2013. It was then that council controverted prior agreements and disallowed the researcher and other volunteers

access to the website's backend, and since then the website has not been maintained as it was intended. Content has been added contrary to the original design, and the participatory elements have not been moderated or maintained as planned. Therefore, in order to present the website as intended – and to preserve this perspective when website is inevitably removed from the web -- the researcher has created a series of video tours of the website, available online at <http://tinyurl.com/ABTTplaylist>

The first video serves as an introduction to the website, explicating features of the home page, as they relate to ideas developed in the methodology and theoretical framework (see Chapter 5). For example, of the five large boxes that rotate in the homepage carousel, four demonstrate the researcher's emphasis on person-centred imagery and "warm," person-centred narrative. The fifth, featuring a photo of Menai Bridge and the headline "Welcome to Anglesey's Community Heritage Website," invites the user into the site's participatory culture, with the text "Join us! Help create the future of the past" (<http://www.angleseyheritage.com>). Before launch, a click on that box brought the user to a full page that detailed how to participate on the site, from commenting and uploading content like photos and videos, to joining the volunteer group behind the website. The page also provided contact information, meeting times, and a group photo of some of the smiling volunteers. While the researcher intended the page to reach new volunteer contributors and curators, the page was disconnected by the council at launch.

That same first video then goes on to examine some of the home page's other features: "Plan a Visit" (interactive map) and "Inspire Me" (user interest quiz). The researcher did not originate the ideas behind these two features, but she did

populate them with content. In addition, the first video discusses the home page's empty "Events" listing, a technical and design problem that the researcher flagged but it went unresolved, and "Island Stream," the name Rippleffect proposed for the home page's live feed from Facebook and Twitter, which was to appear in the bottom right corner. That feature was also disallowed by the council just prior to launch, because, as live simultaneous translation of the feed was not available, the feed was deemed not sufficiently bilingual to cohere with the council's language policy. The video ends by explaining the three "every-page" features: the eight logos at the very bottom, the social media buttons at top right and the bilingual facility at top left.

The next video in the playlist, "Timeline," explores that 93-item-long website feature, which the researcher created and edited. While a professional heritage writer drafted the first copy of the list, the researcher recast the text in more active, accessible language; she also spent two months searching for 93 free and low-cost images to illustrate the items. As that video shows, the Timeline is intersected by links to six Themes essays, identified by icons on the bottom of the page and at chronological marks within the Timeline. These links connect to six original Themes essays on the website, inspired by the pan-Wales Interpretation plans promoted by Cadw, the Welsh government's heritage body. Both the Timeline and the Themes demonstrate a warm, social, person-centred, consumer-focused approach to heritage. Together they serve to present a compelling and complete context for the individual heritage stories contained in the "Key Places" pages, discussed below.

A third video on Themes takes the viewer through these six original essays, to document them as written and illustrated. Viewers can pause the video to read the interpretation in full or visit the website to view them at their leisure. Three of those essays (Origins, Romans, and Anglo-Norman Conquest) were written by another writer, with editing and image acquisition by the researcher. The remaining three Themes were written by the researcher, with image acquisition by the researcher.

The fourth video on the playlist, “Key Places,” presents the 10 of the currently 21 Places pages on the site that were written and edited by the researcher. (The other 11 were added after launch by the council; they do not conform to the researcher’s design intentions. For example, they have no human hosts for the pages. Under “Your Host” for the site Anglesey Archive Service is the logo for the local council.) These Places pages demonstrate a key strategy of the website, which, following Fallman’s Interaction Design Research triangle (see Chapter 5), completes a “loop” between Design Practice (the website), Design Studies (Critical Heritage Studies), and Design Exploration (democratisation of heritage). The “Your Host” feature of each Places page introduces the viewer to the page’s “co-curator,” a local heritage enthusiast who provides a genuine local welcome, contributes ideas and content, stimulates conversation via the Comments section at bottom, and moderates those Comments, ideally. The researcher recruited and trained this team of co-curators over some months in 2011 (as discussed above), in order to create a heritage website with demonstrable multivocality, to show that heritage interpretation is not a monolithic, top-down product to be received by audiences but an individual process wherein artefacts and stories have polysemic meanings. In line with Critical Heritage Studies (see Chapter 3), this “Your Host” feature constitutes an

episode of Design Exploration, an attempt to test out a democratizing intervention within a Design Practice setting.

The fifth video discusses the Voices section of the website, a collection of 11 personal reflections on Anglesey heritage by eight different authors, all of which were recruited or discovered by the researcher, who also edited the pieces, obtained permissions, and found images to illustrate them. Authors here range from a medieval Welsh-language poet through to Charles Dickens (who chronicles the great 1859 shipwreck at Moelfre), to a spiritual reflection by a contemporary follower of Druidism, to a memoirist's recollections of growing on Anglesey during the Second World War. These essays constitute another similar, triangular methodological "loop," moving from Design Studies (demonstrating multivocality for heritage, as advanced by Critical Heritage Studies) through to Design Exploration (employing a democratising goal), in a Design Practice setting. Meant to grow and expand over the life of the website (but later blocked when the council denied the researcher website access), the section was seeded with diverse perspectives in order to present a wide-ranging welcome to further contributors of many backgrounds.

The sixth and last video demonstrates the website's participatory and social media functionality, including the Comments sections, the galleries for user-generated photos and videos, and the associated Facebook and Twitter accounts. These areas present several more avenues for user participation that the website was meant to explore and expand, another loop of multivocal presentation and polysemic interpretation, meant to seed a participatory culture around Anglesey heritage. However, when the council disallowed researcher and the volunteer team to moderate comments and add content, these functions were handed to the two-

person council marketing team, already responsible for maintaining the council's other websites and social media accounts. Therefore the participatory conversation has not materialised. The Comments, which need moderator approval in order to be published on the website, have not appeared: most Key Places pages show zero comments added, in the two years since launch. The "Watch" section of the website, a gallery for user videos, contains only the same three items uploaded by the researcher, to seed it before launch. The "Gallery" section, meant for user photos, reads "Page Unavailable." The affiliated Facebook page and groups, along with the Twitter account, which were activated and cultivated steadily by the researcher for a year before launch, have since faded from use. When the council further decided not to promote the heritage website (nor to include a prominent link to the heritage website on its new tourism website), the former probably also suffered from a lack of visitors. Since the researcher cannot access the website's Google analytics, complete analysis is impossible. However the researcher did design an instrument to measure user engagement with website; preliminary results suggested that the website engaged users across many dimensions, more effectively than its functional predecessor, the county council website's heritage section.

6.13 Ongoing Life of the Website

In the spring of 2013, when the site content was completed but before launch, IoACC officers announced that, counter to the agreement that had been in place for 18 months, it would not be following the collaborative plan for the website. The IT head had met with her supervisors and the council's legal advisors. They decided that, when providing web hosting, the council would take on legal liability for all content, therefore it must control all content published. Regardless of prior agreements and

pre-vetting and training of volunteers, despite demonstrations of the power of Disqus's language filters to block inappropriate Comments, the council argued that volunteer moderation constituted unacceptable risk. Content could only be added or moderated by council employees. The researcher/project manager and the co-curators were blocked from access to the site's backend; they could access neither content nor Google Analytics. Though the project had from the start incorporated volunteers partly to guarantee long-term sustainability (by eliminating the need for paid staff involvement), the council now handed responsibility for moderation and updates to its two-person marketing department, which also maintains the council's other websites.

This move has effectively cancelled out all the website's interactive social features. In the two years since the heritage site was launched, the council has added some pages but these clash with the researcher's intent: the website now contains 11 more "Key Places" pages than the original 10, but the additional ones have inanimate "hosts" such as the council itself. In addition, the user-generated content areas remain almost empty. For example, across the 21 "Places" pages, council moderators have approved a total of 10 comments. The "Watch" video page still contains only the four videos uploaded before launch; the "Gallery" of user photos reads "Page Unavailable." In effect, the website has reverted to a read-only vehicle, typical of broadcast-style "Web 1.0" websites that the council prefers.

When the heritage website finally launched on 23 July 2013, neither IoACC nor Menter Môn issued a press release or publicised it. At that time, the council was actively rebuilding its larger tourism website, also using Rippleffect as the developer. Despite earlier verbal agreements that the new visitanglesey.co.uk would feature a

prominent link to the Anglesey heritage website, the connection became obscured in the redesign. Today, the current newer version of the council's website has a brief intro to "heritage" that does not mention or link to the heritage website (IoACC, 2015a). Instead it offers a list of heritage sites to visit, intermixed with general "activities" on the island. Some of those site listings, like those for Barclodiad y Gawres and Aberlleiniog, use text copied directly from the heritage website (IoACC 2015b; IoACC 2015c). Only Aberlleiniog's page offers a link to the heritage website at the bottom. Though council officers attended several planning meetings across two years and signed off on the participatory design at several points, when the council finally took over the website, they disabled the social elements and declined to promote it, so it never found an audience or grew a participatory culture.

Since the website's creator has been denied access to its backend, user data via Google Analytics is not available.

Along with the videos referenced, the current chapter demonstrates the website "Anglesey: A Bridge Through Time" as a creative artefact, the direct result of the researcher's literature study and methodology. Through these, she built a theoretical framework, which then inspired a website that combined "authoritative," expert-vetted (yet "warm" and person-centred) interpretative content with demonstrable, multi-vocal participation via diverse contributors and co-curators/hosts, plus social media and Comments integration. Though the project was prevented from reaching its intended participatory community, it can still serve to instruct other heritage practitioners about the possibilities -- and pitfalls -- of attempts at participatory design on the local level.

6.14 Conclusion

This chapter first offered the researcher's narrative regarding the process of building the website and its community. Then the chapter presented a detailed examination of the completed website, demonstrating it to the reader as the researcher intended. The chapter also discussed the website's ultimate fate, effectively stripped of its participatory elements. In the next and final chapter, the researcher wrestles with the possible reasons underlying the project's undoing, further exploring theories about intangible heritage and examining relevant research regarding organisational issues such as technology adoption within local governments.

Chapter 7: Discussion, Conclusions, and Further Research

7.1 Introduction

This chapter presents, analyses and assesses the contribution to knowledge associated with “Anglesey: A Bridge Through Time,” a digital heritage project consisting of both website-as-creative-artefact and thesis-as-analysis. On some level, the project may have succeeded: preliminary, exploratory user testing (discussed below) demonstrates that the website engaged users across six factors. Beyond that, however, did the website succeed in its overall goals of increasing tourism footfall or helping to building a community (both online and locally) of support for Anglesey heritage? Did it empower participants to build new heritage discourses that subverted or augmented traditional authoritative discourses? What obstacles did it face and why? What factors contributed to the project’s performance and its ultimate fate? What lessons can be learned from this narrative? This chapter addresses these questions.

7.2 Engagement: Possible Success

Because the council disallowed the researcher access to the website’s backend, Google analytics were not accessible. To test the website’s appeal, the researcher then attempted to develop other ways to measure the website’s success as an engagement vehicle. Early preliminary results were promising. For example, building on O’Brien and Toms well-known work on user engagement with shopping websites (O’Brien and Toms 2009), the researcher divided 94 participants into two groups. One examined and rated the research website across the six engagement factors recognized by O’Brien and Toms: Perceived Usability, Aesthetics, Focused Attention,

Novelty, Endurability, and Felt Involvement. The other group examined and rated the research website's functional predecessor: the heritage area of the county council's tourism website. The researcher's website outperformed its predecessor on all six factors. These findings are of course preliminary and merely suggestive. To be suitably rigorous, such testing would need to use a scale previously tested for its suitability on heritage websites. Further research might further develop and refine reliable testing approaches.

If reliable, this preliminary testing could be taken to suggest that, as a "Web 1.0" site – a one-way provider of engaging content – the website succeeds. However as a participatory "Web 2.0" site, it remains a discontinued experiment with unknown results. Disconnected from its creator and co-curators and deprived of promotion via links and planned live events, the website never really found its audience or built its community; its potential remains untested. Therefore as a strategy – an inter-agency administrative process to create and support a participatory digital media intervention -- "Anglesey: A Bridge Through Time" fails, for reasons multifarious: methodological, organisational, and philosophical/attitudinal.

7.3 Methodological Factors

Referencing Fallman's Interaction Design Research Triangle (Chapter 5), the researcher operated under the notion that the project was primarily situated within the Design Practice corner. A real-world intervention generated in collaboration with various stakeholders as outlined in Chapters 2 and 6, the project proceeded under goals outlined in the Request for Proposal, which the researcher co-wrote, in affiliation with officers from the enterprise agency and the local authority. However

it appears that council representatives did not discuss the implications of user-generated content or volunteer moderation with higher-level administrators or legal council until 18 months into the project, near to launch. And, once discussed more broadly, apparently concerns and objections arose within the council.

Unfortunately, because such objections were never made explicit or known to the researcher, a presumption of agreement prevailed throughout project development. Ultimately, the success of the site depended on high-level support and agreement within the organisation, but this was not forthcoming. In short, the researcher's presumption of agreement and adoption of the project's principle aims by the agencies involved – the project's anchoring in real-world Design Practice -- proved illusory.

Subsequent literature review reveals that in fact, worldwide, local governments' involvement in interactive and participatory digital media remains exceedingly rare; most local governments do not attempt it. (For a full discussion of organisational barriers to technology adoption, see below). The website proved more avant-garde than was understood at the time. By seeking to seed a multi-vocal heritage discussion, to up-end "authorised discourse" with intellectually accessible narratives, to augment expert views with user-generated content, the current project embodies paradigm shifts, both in form and content, that challenge dominant notions of authority and expertise and ultimately threatened the authority's sense of control. Therefore the project rightly sits more within Fallman's domain of Design Exploration, which "often seeks to test ideas and to ask 'What if?'—but also to provoke, criticize, and experiment to reveal alternatives to the expected and traditional, to transcend accepted paradigms, to bring matters to a

head, and to be proactive and societal in its expression” (Fallman, 2008, p.8). Usually Fallman contends such disruptive innovations necessarily require a degree of operational independence, which would have helped in this case. At the time, the researcher proposed a common-sense solution for sustainability: organise the site so that volunteers handle updates and comments, and the local authority seemed to agree. Had the researcher understood the depth of contested discourses, the lack of support at higher levels of the partner organisations, and the rarity of government support for participatory media, she might have understood the work more clearly as a Design Exploration endeavour and worked earlier therefore to surface and resolve unspoken concerns -- or even to re-examine funding requirements in order perhaps to obtain independent hosting for the site.

Indeed since 2007 the UK’s Collections Trust, a professional association for museum staff, has recommended that local museums establish websites independent from local authorities, in order to preserve museum creativity and control (Poole, 2007). Had the researcher had access to institutional supports or grounding such as museum staff or museum/heritage studies faculty involved in the project, such policy precedents may have been surfaced.

Now, in analysing the results in the written dissertation, which seeks to distil, synthesise, and contribute the researcher’s learnings from the project to the cumulative body of knowledge in Design Studies (and other related disciplines), the methodological “loop” from Exploration to Practice to Studies finds completion.

7.4 Organisational Factors

Second, the strategy failed due to organisational shortcomings. As discussed in Chapter 2, the poor management of the county council at the time is well

documented; in 2011 it became the first council in the UK to have its executive powers temporarily transferred to national commissioners (BBC Online, 2011). Even now there remains no island-wide strategy to promote heritage tourism. Tourism experts counsel that sustainable tourism development requires consistent collaboration and cooperation among stakeholders (Hall 2000; Timothy 1999), and heritage tourism development is further troubled by an established schism between “heritage” and “tourism” foci (Nuryanti 1996). This schism is demonstrated even within the Isle of Anglesey County Council, which, while it partners on heritage tourism projects on the island, doesn’t acknowledge heritage tourism in its Corporate Plan (Anglesey Corporate Plan, 2013-2017), a document that counts “heritage” instead as a leisure service in line for cuts. The council still prioritises, both in funding and promotion of general tourism to the island, a focus on water sports and walking (see Chapter 2 for a full discussion). While Menter Môn and Cadw have physically renovated several heritage sites through the Mona Antiqua Heritage Tourism Project, they have not developed any long-term plan to promote the sites, especially through digital media. In addition, as Pietro Biratelli contends, cooperation in local tourism planning is often dominated not by rational economic concerns but by longstanding interdependencies and “kinship” relations (Biratelli, 2011). This situation can produce an inertia that reinforces “the way it’s always been done” and discourages innovation, especially from outsiders.

In addition to these management issues, the local officers involved in the project displayed a marked ambivalence toward social media. Although the council affirmed social media as popular and (at least early on) as necessary to the project, they also later disparaged it as morally questionable. For example, the heritage

officer at the enterprise agency, supervisor on the project, twice recounted how a relative had embarrassed his family by revealing a painful split on Facebook; such exhibitionism was reprehensible in his opinion. This worry over exhibitionism was shown by Bonsal et al to be common in local agencies (Bonsal et al 2011). In 2010 when the project began, the local council had just recently begun its first Facebook presence and had therefore unblocked employee access to the network – on one machine, belonging to the marketing officer, as he related at an early meeting. All others remained blocked, officers stated, to avoid the “timewasting” effects of Facebook access.

At the time, the researcher thought the council a particularly slow adopter, but according to several researchers, it was on an average – even perhaps somewhat accelerated -- trajectory, especially for a less populous rural area. In a 2010 survey of 75 local municipalities across Europe, Bonson et al found that almost half of the largest cities still had no active presence on major social media sites (Bonson et al. 2011). While many had developed e-government facilities in order to receive online payments, very few had incorporated any public commenting or participatory elements: “In general the concept of corporate dialogue and the use of Web 2.0 to promote e-participation are still in their infancy at the local level” (Bonson et al. 2011, p. 124). Researcher Quiyan Fan came to the same result when examining local governments in Australia that same year: “The majority of the local government websites are primarily informational and they provide one-way communication of information from government to citizens” (Fan 2011). Even in the 75 largest US cities in 2011, Mossberger et al found that a one-way “push” strategy predominated on social media (Mossberger et al. 2011). Two years later, in 2013, Hofmann et al

discovered little change in US local governments interacting on social networking sites (SNSs). They concluded: “Although SNSs offer potential that could overcome the defects of governments' traditional offline communication, this potential is not well-exploited by public administrations. The analysis reflects that the online communication behaviour of local governments is based on disseminating information in a traditional way, without adapting their communication habits to the particular characteristics of SNSs” (Hofmann et al. 2013).

Several researchers have developed theories to explain slow adoption in local government. In his "IT innovation adoption in the government sector: identifying the critical success factors," researcher M. M. Kamal traces the evolution of academic theories related to all technology adoption and then proposes a model specific to government agencies (see Figure 13). Adoption is a long and complex process: Kamal presents an 8-step model that includes a four-step decision process and a four-step

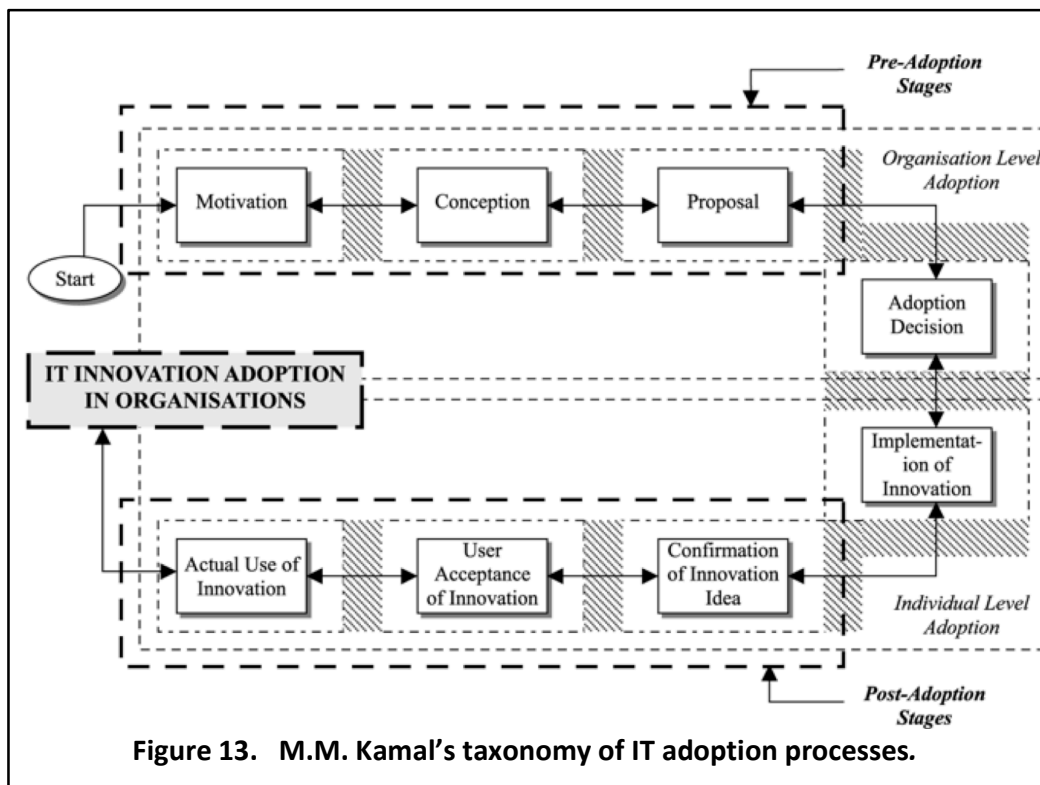


Figure 13. M.M. Kamal's taxonomy of IT adoption processes.

implementation process. “[S]imply acquiring or adopting a technology is not sufficient; in order to obtain the anticipated benefits, it must be deployed and used appropriately by the organisation and its intended users” (Kamal 2006, p.192). In summarising the field, the author outlines 21 factors that contribute to successful technology adoption, including: a high level of support from top administrators, a high level of inter-organisational trust, a favourable political environment, successful adoption at neighbouring similar agencies, and the presence of an internal “champion” – someone who is committed to introducing the IT innovation to the organisation (Kamal 2006). In a national survey on e-governments in 2013, analysts Reddick and Norris affirmed that top-level support was key to success; they also identified citizen demand, formal planning, and “taking e-participation seriously” as important factors for success in social media adoption for local governments (Reddick and Norris, 2013). Of the eight factors mentioned here, both from Kamal and Reddick and Norris, not one was available in the case of “Anglesey: A Bridge Through Time”: no support, little trust, no champion inside or citizen demand outside. A discrete project, proposed by a lone outsider, it earned nods and handshakes but in the end achieved none of the key factors necessary for successful adoption.

In addition to the social media features, the local council voiced objections to the website’s possible inclusion of critical or “inappropriate” comments and unpredictable user-generated content (UGC). Further investigation reveals that many larger organisations also struggle with the legal and professional ramifications of hosting such content. In 2009 researcher Jackie Harrison conducted an observational study of UGC inclusion on BBC websites; she found that the

moderation, verification, and storage of UGC items demands considerable staff time, and evolving policies and practices related to it constitutes a continuous and difficult managerial process (Harrison 2010). Moreover, claims Harrison, the ultimate value of such participation to news production and civil engagement is questionable. Examining UGC inclusion on British newspaper websites, Hermida and Thurman concluded similarly, that, in order for it to add commercial or editorial value, UGC demands time-intensive moderation: “The findings suggest a gate-keeping approach may offer a model for the integration of UGC, with professional news organisations providing editorial structures to bring different voices into their news reporting, filtering and aggregating UGC in ways they believe to be useful and valuable to their audience” (Hermida and Thurman 2008, p. 343). Further, a 2012 study of 100 news websites demonstrated that “gate-keeping” also impacts website layout (Himmelboim and McCreery 2012). Most news websites push comments/discussion or UGC to designated areas (usually “below the fold” or far down on a page) or to third-party social networking pages, in order to distance it from primary “expert” content: “[O]verall, news media preferred applying features that allow users to interact with content, but without the ability to influence it” (Himmelboim and McCreery 2012, p. 427).

A modified gatekeeping approach was integrated into the design of “Anglesey: A Bridge Through Time”: the “Comments” area was clearly marked and UGC appeared in separate gallery areas on the website, with alternate discussion areas available on Facebook and Twitter, as detailed in Chapter 6. In addition, from the beginning the researcher articulated a plan to address moderation work flows via Disqus, with pre-moderation language filters and trained volunteer capacity.

In its decision to disallow volunteer moderation, the council cited potential legal liability for inappropriate content. Although it remains a concern and the law is not well established on the subject, subsequent research opens this reasoning to questions. In a 2007 paper, researchers Carlisle George (a barrister and a lecturer in computer science) and Jackie Scerri (an attorney and copyright expert) surveyed UK law related to UGC (George and Scerri, 2007). They counseled web hosts and internet service providers that “the current state of the law does not impose an obligation on ISPs to monitor information transmitted or stored and actually provides them with immunity if they have no actual knowledge of infringing content” (George and Scerri 2007, p.18). But to best avoid liability, the authors recommend that hosts actively monitor and remove infringing content. In addition, they should have identity protocols in place at registration, so that offending users can be denied access. Both of these recommendations were followed in the building of “Anglesey A Bridge Through Time” website; a moderation plan was articulated and registration both on the website and on Disqus involved user identification and the ability to block offenders. While subsequent legal commentators (De Beer and Clemmer, 2009; Swartout, C. 2011) describe a worldwide shift to requiring a more actively preventive role for hosts and service providers, this extends only to copyright enforcement issues. Such changes would impact sites like Instagram or Youtube, which host copyrighted artistic content that is routinely shared illegally by non-creators. On a website like “Anglesey: A Bridge Through Time,” however, users would usually share only their own personal comments or home snapshots. In addition, that website’s registration forms, an enforced pre-requisite, required would-be sharers to verify their ownership. Liability is thus transferred to users who

claim ownership. Based on the researcher's investigations into current (at the time) standards of website practice, the website's design shows that it was indeed well protected from legal liability concerns. However, the council, like most councils, was very risk-averse and may not have been entirely satisfied by these precautions.

Overall, it is fair to posit that, from an organisational point of view, the project suffered from a lack of internal support at top levels of the hosting authority, which, undisclosed to the researcher until near to launch, left it open to accusations of unacceptable risk-taking, both legally and politically. Officers from the authority and the enterprise agency chose not to defend or protect the project. This decision reveals an individual lack of support for the project, counter to earlier agreements, which may reflect personal and social philosophical/attitudinal objections to it.

7.5 Philosophical/Attitudinal Factors: Heritage As Intangible, As Process

As discussed fully in Chapter 3, in the twenty-first century, both philosophical and theoretical developments related to the rise of postmodernism contributed to the formation of the Association of Critical Heritage Studies. This worldwide network called for heritage practitioners to analyse and overthrow power imbalances inherent in the long-established "authorised heritage discourse," which sanctified physical monuments and material remains of dominant "Western" cultures. Concurrently, international bodies such as UNESCO moved to extend protections to cultural practices, often essential to minority cultures, which it described as "intangible," including languages, skills, performing arts, oral traditions, crafts, and medical and culinary practices. In 2004, Dawson Munjeri, a former Zimbabwean museums director and a member of the UNESCO committee that drafted these

protections, described the effort to elevate this “ignored heritage” (Munjari, 2004). By focusing on physical objects, traditional authorised discourses, he wrote, represent a reductionist approach to cultural heritage, in which “highly symbolic objects take centre stage at the expense of popular forms of cultural expression or of historical truth” (Munjari, 2004, p.13). When concrete or symbolic objects are valorized for physical attributes such as “authenticity,” such objects are removed from everyday life, placed at a distance that dissociates them from active engagement.

Cases abound where sites and monuments have been vandalized or neglected through failure to make people associate themselves with such physical manifestations. In a real world, *ceteris paribus* the cart does not pull the horse. Cultural heritage should speak through the values that people give it and not the other way round. Objects, collections, buildings, etc. become recognized as heritage when they express the value of *society* and so the tangible can only be understood and interpreted through the intangible. Society and values are thus intrinsically linked. (Munjari 2004, p.13).

In addition to languages, skills, and performing arts, therefore, “intangible heritage” is also formulated to encompass all the larger processes whereby humans understand and interpret tangible artefacts. This thesis is affirmed by heritage theorist Laurajane Smith, when she declares that, contrary to the Authorised Heritage Discourse, “heritage” is not a product or a quality inherent in physical objects; it is a process, an inherently political practice that performs the cultural work of the present (Smith 2006). Subsequent heritage practitioners, exploring the democratising potential of social media, have built participatory interactions that seek to inspire, capture, and share the experience of individuals engaged in the heritage process (Ferris et al, 2007; Giaccardi and Palen, 2008; Perkin, 2010; Ciolfi,

2012). For meaningful engagement, “The key is indeed to value process over product in the cultural production of our relationship to the past.” (Silberman and Purser, 2012; p. 26).

Directly referencing Munjeri’s formulation of intangible heritage as that process through which humans understand tangible heritage, Cristina Garduño Freeman presents her study of two groups on Flickr devoted to sharing images of Sydney Opera House. The socio-visual interactions in the groups constitute a visual discourse, she argues, which is related to members’ sense of memory, belonging, and identity, and this discourse therefore can be understood as an instance of intangible heritage:

The argument here is that the taking and sharing of photographs on Flickr is one way in which immaterial practices enacted around the Sydney Opera House operate to co-constitute the cultural value of the site itself. The images entail the act of photographing, and are also ‘material’ artefacts. At the same time the photographs support complex dynamic social interactions that traverse both the personal and the public realms: as mementos of experiences, as expressions of identity and as instances of communication. Thus, following Munjeri’s argument, the cultural value of a place like the Sydney Opera House cannot be dissociated from the social practices enacted by its various communities, and these contribute to its importance as a World Heritage site (Garduño Freeman, 2010, p. 355).

Like these Flickr groups, the digital strategy “Anglesey: A Bridge Through Time” was intended to create discursive practices, to inspire new associations between people and heritage sites, to capture and display the polysemic meanings of many individual, intangible heritage processes. Unlike the Flickr groups, however, “Anglesey: A Bridge Through Time” is embedded in a local culture where the Authorised Heritage Discourse predominates. For an example, examine the relative treatment of Cadw, the Welsh Government’s heritage agency, toward the two

Anglesey heritage sites Beaumaris Castle and Llys Rhosyr. The former, the island's only registered World Heritage site, is a 13th century fortification Cadw calls "the most technically perfect castle in Britain" in its web page's headline (Cadw Website, 2015e). With 75,000 visitors in 2007-08, it is by far the biggest heritage "draw" on the island (Cadw 2010, Appendix B page 3). Cadw's website invites visitors with this description:

Dare we say it, an absolute cracker of a castle with classic proportions and perfect symmetry. The last hurrah of Edward I's massive building programme in north Wales . . . just a shame he never got round to finishing it!

With finances stretched to the limit and the Scots now increasingly effective in their resistance to the English monarch, his vice-like grip on Wales was beginning to slip. Edward or 'Longshanks', on account of his extraordinary height, was forced to focus his attention elsewhere and the rest is, quite literally, history . . . (Cadw, 2015e).

As typifies the Authorised Heritage Discourse (AHD), both the headline and the copy prioritise and praise the site's physical authenticity and material stature. Further, even though sponsored by the devolved government of a formerly colonised people, the text adopts the euphemism of a "massive building programme" to describe the Anglo-Norman crown's forced military occupation of Wales. Instead of affirming the centuries-long struggle for independence mounted by the Welsh, the people he conquered, the text tries to evoke sympathy for Edward, who was – figuratively – "forced to focus his attention elsewhere."

Meanwhile, elsewhere on Anglesey, Llys Rhosyr, a unique site of Welsh national significance, lies unclaimed by Cadw. Over a period of 800 years, the medieval kings of Gwynedd ruled from perhaps 20 different court sites, scattered around North Wales. Llys Rhosyr is the only court of a Welsh king yet identified and excavated in all of Wales (Anglesey: A Bridge Through Time, 2013e). However

because it was destroyed by the occupying forces of Edward I, it remains an unreconstructed ruin, a rock pile without the monumental form or nostalgia required by the predominant Authorised Heritage Discourse. Even the devolved government, which promotes medieval Welsh history in schools, doesn't claim the site and doesn't fund further excavation or conservation. Twenty years after its discovery, it's only one-quarter uncovered; the site is temporarily held in trust by Menter Môn but long-term ownership remains uncertain (Anglesey: A Bridge Through Time, 2013e).

In Wales, as in all places with a legacy of armed warfare, monumentality tends to favour history's "winners." So here too the ubiquitous, totalizing AHD serves to obliterate alternate discourses: "Naturalization of the AHD tends to not only restrict the ability of competing discourses to be heard and dealt with equitability within heritage management processes, but also requires the maintenance of a consensual view of the past and its meanings for the present" (Smith, p. 79).

The participatory strategy "Anglesey: A Bridge Through Time" threatens the consensual view. Not only does it present alternate, competing discourses by openly speaking of Anglo-Norman military aggression and lamenting the neglect of Llys Rhosyr, it also invites users to publish *their own* alternate and competing discourses – and that was its ultimate transgression. Like the Flickr groups, the true aim of the Design Exploration project "Anglesey: A Bridge Through Time" was to inspire an intangible heritage process of individual engagement, to create an online avenue of living cultural practice.

The local officers holding the power of implementation, however, did not at end affirm this goal. The heritage officer was not convinced that popularising its story via the participatory web could inspire the local populace or heritage agencies to help preserve and defend it –or that the risks inherent in the current project were worth these possible long-term benefits. He echoed the local authority’s mistrust of social media and user-generated content.

Like many other heritage officials, the heritage officer in this case was trained in the field of archaeology in the UK, which has been shown to be especially resistant to participatory media (Richardson, 2014). After examining many participatory digital engagement approaches in archaeology for her 2014 thesis, Lorna-Jane Richardson concluded: “Data collected for this research indicates that online archaeological expertise and authority is robustly maintained by archaeological organisations throughout the UK. Multiple perspectives on archaeological interpretation and meaning are not apparent within the framework of the participatory web” (Richardson, 2014, p. 291).

7.6 Lessons Learned

In 2011, when the researcher and her supervisors decided to build this website, it seemed like a somewhat simple, straightforward solution: Drawing on the current trend toward participatory media’s harnessing amateur enthusiasm, the researcher would build a participatory virtual museum for Anglesey heritage that might, over time, draw in interest and participants and tourists from around the globe. It appeared that with some minimal discussion, funding partners would cooperate and support the plan, so it went forward; the researcher studied the context and built the digital project. But the “simple and straightforward” nature of the idea proved

illusory, as did the seeming cooperation and agreement between partners. As the project revealed itself as more complex, as its inherently democratizing agenda brushed up against fears related to political and legal risk-taking, conflict arose, in a situation with no established process for conflict engagement or resolution across and between partnering institutions. The weak initial institutional support for the project then evaporated, and the local officers (who held the power at that point) resolved the conflict by stripping from the project the risky facets – the heart of its innovation and potential contribution to knowledge. Without the ability then to grow the project to its potential and analyse the results, the researcher was left with an incomplete mission, unfulfilled goals, and unclear contribution to knowledge.

Could these problems have been foreseen? No and yes.

As a real-world intervention situated in a specific time and place, in answer to a specific question, the project's specific real-world challenges could not have been anticipated. As in all such situated projects, the researcher had to learn on the go, reacting to other stakeholders and developing events in real time. Real people cannot predict the future. For example, the researcher did not encounter the literature about technology adoption in local government – demonstrating all the key (and here missing) levels of institutional support necessary for successful adoption (Kamal, discussed above) -- until she engaged in post-project analysis, a year after the website's demise. Had she understood the literature at the project's start, she might have worked toward wider acceptance at earlier stages in development.

However, while individual researchers might not be able to predict which specific conflicts might arise during the development of projects, institutions hoping

to foster innovation might learn to spot patterns in projects aimed at innovation. For example, advisers in university programs targeted at supporting innovation in under-resourced areas might learn over time to guide students in interactions with risk-averse local agencies; they might study the literature around innovations tied to technology adoption, for example, and support individual researchers in building clear institutional support in partner agencies. Additionally, innovation-centred scholarship programs in under-resourced areas might learn to predict and prepare for the inevitable conflict that innovation engenders. For example they might study the growing literature on the interplay between innovation and conflict, and then provide resources and support to individual researchers before, during, and after conflict situations.

Lessons learned? Researchers need help and support from their universities regarding: how to interact with project partners, how to draw clear agreements and build institutional support for projects, how to manage inevitable conflict when it arises (including how to manage conflict across cultures), and how to salvage research value from “failed” projects. Regardless of individual student experience, universities can build understanding around the dynamics of innovation.

7.7 Limitations and Further Research

This research project is necessarily limited in scope and execution. It pertains directly to experience in one local community with a set group of actors, though the researcher has connected it to larger ideas and trends and attempted to draw larger implications and lessons.

The interaction design for participation was necessarily limited by a lack of previous design experience and by the project’s abrupt termination, at launch. In

hindsight, it would have been instructive to work with seasoned designers and create fresh, bespoke digital participation prompts and platforms. As designer Luigina Ciolfi cautions, “[C]onventional social media tools might not provide the right or sole solution for every design case” (Ciolfi, 2012, p. 84). In addition, the original plan augmented the digital participation elements with a number of in-person events, to encourage and include more local participants, including those with poor web access or limited digital literacy. Further research projects could include more nuanced participatory elements, including in-person events for inclusion.

The digital strategy was also limited by the too-short time frame of PhD projects; due to the decline of the strategy after the council’s decision, the engagement process of this project lasted less than three years in total. Research demonstrates that participatory designers seeking meaningful community engagement must take a long-term view, building participatory methods and dialogical community relationships over time, which cannot be understood via simple quantitative measurements like “visitor numbers.” To overcome barriers to engagement, both real and perceived, designers should reevaluate and actively seek to disassemble power imbalances inherent in expert/non-expert dichotomies, and this work was not done adequately in the present research.

Future research could take two directions. First, the researcher could encourage GLAM staff and mainstream heritage institutions to expand engagement by augmenting their focus on expert interpretation of internal collections. They could broaden practice by further supporting free and open-ended interaction with heritage, as exemplified by the Flickr groups. In addition, by meeting communities where they are and listening to community concerns and interests, local museums

can channel the natural interest people have in their own intangible heritage processes as they relate to family, town and region. Such institutions can partner with community-centred projects around intangible heritage, perhaps helping people to build and contribute to independent, open-ended community archives.

Second, future research might involve further investigation into Historypin and the Irish iCAN network, two successful forays into nurturing and preserving independent local heritage networks (see Chapter 4). How has iCAN systematised its outreach, developing processes to support new archives and expand existing ones? How has iCAN dealt with questions about the heritage and academic value of community archives? Can Historypin expand its platform to adequately include text-based narrative? Can it allow local communities to tell their own stories without intervention from staffers? What queries has it faced about the long-term cultural value of community-sourced heritage? Future research would attempt to develop a protocol for supporting local communities in their own efforts to create and preserve their heritage via digital means, on platforms such as Historypin or those used by iCAN, depending on local needs and resources.

7.8 Conclusion

Heritage is not a product; instead it is a never-ending process of expansion, discovery, interpretation, and re-interpretation. In that context, “Anglesey: A Bridge Through Time” could perhaps best, in hindsight, be thought of as a provocation and a bricolage mechanism. It constitutes an attempt to create a mechanism of empowerment that would allow individuals to contest the hegemonic world-view of authorised heritage discourse by pulling them into the very dialogue itself – by getting them to engage in live, dynamic discourse via the web and social media. Such

mechanisms might, at best, be misunderstood by the dominant paradigm and, at worst, be seen as direct threats to that paradigm and to those whose livelihoods are tied to it. Ultimately, while the mechanism was designed to be effective – and even succeeded based on some metrics – within the broader context and ecosystems, it was unable to achieve its final and philosophical goals. It is hoped that the mechanism’s lifecycle story -- its design birth, teenager years, and ultimate death -- might serve as both inspiration and cautionary tale for future participatory heritage champions.

References

- Aaker, J., 1997. Dimensions of Brand Personality. *Journal of Marketing Research*, 34(3), p.347.
- Aas, C., Ladkin, A. and Fletcher, J., 2005. Stakeholder collaboration and heritage management. *Annals of Tourism Research*, 32(1), pp.28-48.
- Anglesey Computer Solutions, 2011. *Anglesey 3g mobile coverage - Anglesey Computer Solutions*. [online] Available at: <<http://www.angleseycomputersolutions.com/blog/uncategorized/anglesey-3g-mobile-coverage/>> [Accessed 30 Jun. 2015].
- Anglesey County Council, 2013. *Anglesey Corporate Plan, 2013-2017*. [online] Available at: <<http://www.anglesey.gov.uk/Journals/2014/04/02/u/s/p/corporate-plan-2013-2017.pdf>> [Accessed 1 Jun. 2015].
- Anglesey County Council, 2015. Anglesey Destination Management Plan. [online] Available at: <<http://www.anglesey.gov.uk/Journals/2012/08/09/Summery-sheet-ENG.pdf>> [Accessed 13 Jun. 2015].
- Anglesey: A Bridge Through Time, 2013a. *Anglesey Heritage Treftadaeth Môn - Barclodiad y Gawres: The Original "Awesome"*. [online] Available at: <<http://www.angleseyheritage.com/key-places/barclodiad-y-gawres/>> [Accessed 12 Jan. 2015].
- Anglesey: A Bridge Through Time, 2013b. *Anglesey Heritage Treftadaeth Môn - The Legend of Llanddwyn Island: St. Dwynwen*. [online] Available at: <<http://www.angleseyheritage.com/key-places/llanddwyn/>> [Accessed 22 Jun. 2015].
- Anglesey: A Bridge Through Time, 2013c. *Timeline*. [online] Available at: <<http://www.angleseyheritage.com/timeline/>> [Accessed 23 Jun. 2015].
- Anglesey: A Bridge Through Time, 2013d. *The Kingdom of Gwynedd: 800 Years Strong*. [online] Available at: <<http://www.angleseyheritage.com/discover/themes/kingdom-of-gwynedd/>> [Accessed 23 Jun. 2015].

- Anglesey: A Bridge Through Time, 2013e. *Llys Rhosyr: The One and Only Welsh Court*.
[online] Available at: <<http://www.angleseyheritage.com/key-places/llys-rhosyr/>>
[Accessed 23 Jun. 2015].
- App Annie, 2013. *App Annie Index - Market Q2 2013: Google Play Exceeds iOS App Store in App Downloads by 10% in Q2 2013 - App Annie Blog*. [online] App Annie Blog.
Available at: <<http://blog.appannie.com/app-annie-index-market-q2-2013/>>
[Accessed 20 Jun. 2015].
- Apple.com, 2011a. *Apple - Press Info - Mac App Store Downloads Top One Million in First Day*. [online] Available at: <<https://www.apple.com/pr/library/2011/01/07Mac-App-Store-Downloads-Top-One-Million-in-First-Day.html>> [Accessed 20 Jun. 2015].
- Apple.com, 2011b. *Apple - Press Info – Apple’s App Store Downloads Top 15 Billion*.
[online] Available at: <<http://www.apple.com/pr/library/2011/07/07Apples-App-Store-Downloads-Top-15-Billion.html>> [Accessed 20 Jun. 2015].
- Araújo, A., 2013. *The impact of co-creation in design thinking for social innovation: the case of OpenIdeo*. [online] Repositorio.ucp.pt. Available at:
<<http://repositorio.ucp.pt/handle/10400.14/17541>> [Accessed 22 Jun. 2015].
- Araújo, L. and Bramwell, B., 1999. Stakeholder Assessment and Collaborative Tourism Planning: The Case of Brazil's Costa Dourada Project. *Journal of Sustainable Tourism*, 7(3-4), pp.356-378.
- Archives Wales, 2010. *People’s Collection Wales*. [online] Available at:
<<http://www.archiveswales.org.uk/en/staff-toolkit/peoples-collection-wales/>>
[Accessed 15 Apr. 2015].
- Arnstein, Sherry R. "A ladder of citizen participation." *Journal of the American Institute of Planners* 35.4 (1969): 216-224.
- Arts and Humanities Research Council, 2012. *Research for Community Heritage - Arts & Humanities Research Council*. [online] Available at:
<<http://www.ahrc.ac.uk/Funding-Opportunities/Research-funding/Connected-Communities/Pages/HLF-All-Our-Stories-Initiative.aspx>> [Accessed 3 Apr. 2015].

- BBC News, 2003. *Tourism plan for 'Treasure Island'*. [online] Available at: <http://news.bbc.co.uk/1/hi/wales/north_west/3031678.stm> [Accessed 18 Jun. 2015].
- BBC News, 2011. *Power taken from Anglesey council elected politicians - BBC News*. [online] Available at: <<http://www.bbc.co.uk/news/uk-wales-politics-12768030>> [Accessed 22 Jan. 2014].
- BBC, 2015. *BBC - Your Paintings*. [online] Available at: <<http://www.bbc.co.uk/arts/yourpaintings/>> [Accessed 3 Jun. 2015].
- Beaufort Research, 2009. *Wales Visitor Survey 2009: Staying Visitors Report*. [online] Available at: <http://www.tourismhelp.co.uk/objview.asp?object_id=504> [Accessed 14 Nov. 2011].
- Benkler, Y. and Nissenbaum, H., 2006. Commons-based Peer Production and Virtue. *J Political Philosophy*, 14(4), pp.394-419.
- Benkler, Y., 2006. *The wealth of networks*. New Haven [Conn.]: Yale University Press.
- Beritelli, P., 2011. Cooperation among prominent actors in a tourist destination. *Annals of Tourism Research*, 38(2), pp.607-629.
- Bernstein, S., 2014. Crowdsourcing Brooklyn. In: M. Ridge, ed., *Crowdsourcing our Cultural Heritage*, 1st ed. Ashgate Publishing, Ltd, pp.17-44.
- Beyrouthy, K. and Tessler, A., 2013. *The Economic Impact of the UK Heritage Tourism Economy*. 1st ed. [ebook] Oxford Economics. Available at: <http://www.hlf.org.uk/news/Documents/EcolmpactHeritageTourism2013_07.pdf> [Accessed 28 Jan. 2014].
- Bonney, R., Ballard, H., Jordan, R., McCallie, E., Phillips, T., Shirk, J. and Wilderman, C., 2009. Public Participation in Scientific Research: Defining the Field and Assessing Its Potential for Informal Science Education. A CAISE Inquiry Group Report. *Online Submission*.
- Bonsón, E., Torres, L., Royo, S. and Flores, F., 2012. Local e-government 2.0: Social media and corporate transparency in municipalities. *Government information quarterly*, 29(2), pp.123-132.

- Bourdieu, P., 1986. The forms of capital. In: J. Richardson, ed., *Handbook of Theory and Research for the Sociology of Education*, 1st ed. New York: Greenwood, pp.241-258.
- Boyd, B., 2009. *On the origin of stories*. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Bramwell, B. and Lane, B., 1999. Collaboration and Partnerships for Sustainable Tourism. *Journal of Sustainable Tourism*, 7(1), pp.179-181.
- Bratteteig, Tone, and Ina Wagner. *Disentangling participation: power and decision-making in participatory design*. Springer, 2014.
- British Library, 2011. *Sound maps - UK Soundmap*. [online] Available at: <<http://sounds.bl.uk/sound-maps/uk-soundmap>> [Accessed 23 Sep. 2014].
- British Library, 2012. *Georeferencing: help us place our digitised maps*. [online] Available at: <<http://www.bl.uk/maps/>> [Accessed 5 Jul. 2014].
- British Museum, 2010. *A History of the World in 100 objects*. [online] Available at: <https://www.britishmuseum.org/explore/a_history_of_the_world.aspx> [Accessed 12 Jul. 2015].
- British Museum, 2010. *Website home page as it was on 30 March 2010, accessed via the Wayback Machine Internet Archive*. [online] Available at: <<http://web.archive.org/web/20100330092809/http://www.britishmuseum.org/>> [Accessed 2 Jun. 2014].
- British Museum, 2015. *Welcome to the British Museum*. [online] Available at: <<http://www.britishmuseum.org>> [Accessed 2 Jun. 2015].
- Brooklyn Museum, 2012. *Brooklyn Museum: Exhibitions: Click! A Crowd-Curated Exhibition*. [online] Available at: <<https://www.brooklynmuseum.org/exhibitions/click/>> [Accessed 20 Jun. 2015].
- Brooklyn Museum, 2013a. *Split Second*. [online] Available at: <<https://www.brooklynmuseum.org/opencollection/labs/splitsecond/>> [Accessed 20 Jun. 2015].
- Brooklyn Museum, 2013b. *Go*. [online] Available at: <<https://www.brooklynmuseum.org/exhibitions/go/>> [Accessed 21 Jun. 2015].

- Cadw, 2010. *Interpretation Plan for the castles and town walls of Edward I for Cadw*.
[online] Available at:
<http://cadw.gov.wales/docs/cadw/publications/InterpplanCastlesEdwardI_EN.pdf
> [Accessed 8 Jul. 2015].
- Cadw, 2011a. *Cadw, 2011 E-bulletin - Heritage Tourism Project (November 2011 issue)*.
[online] Available at: <http://cadw.gov.wales/docs/cadw/publications/E-bulletin%20-%20November%202011_EN.pdf> [Accessed 22 Jan. 2014].
- Cadw, 2011b. *Cadw Priorities 2011-16*. [online] Available at:
<http://cadw.wales.gov.uk/docs/cadw/publications/Cadw_priorities_2011_to_2016_EN.pdf> [Accessed 22 Jan. 2014].
- Cadw, 2015. *Interpretation Plans*. [online] Available at:
<<http://cadw.gov.wales/interpretation/interpretationplans/?lang=en>>
[Accessed 23 Jun. 2015].
- Cadw website 2015a. Home page Available at: <http://cadw.gov.wales/?lang=en>
[Accessed 13 July 2015]
- Cadw website 2015b. About Cadw. Available at: <http://cadw.gov.wales/about/?lang=en>
[Accessed 13 July 2015]
- Cadw Website, 2015c. *Heritage Tourism Project*. [online] Available at:
<<http://cadw.gov.wales/about/partnershipsandprojects/projectsfundedcadw/heritage-tourism-project/?lang=en>> [Accessed 12 Jun. 2015].
- Cadw Website, 2015d. *Conwy and Denbigh apps*. [online] Available at:
<<http://cadw.gov.wales/interpretation/projects/conwyanddenbighapp/>>
[Accessed 12 Jun. 2015].
- Cadw Website, 2015e. *Beaumaris Castle*. [online] Available at:
<<http://cadw.gov.wales/daysout/beaumaris-castle/?lang=en>> [Accessed 8 Jul. 2015].
- Campbell, G. and Smith, L., 2012. *Association of Critical Heritage Studies Manifesto*.
[online] [Criticalheritagestudies.org](http://criticalheritagestudies.org). Available at:
<<http://criticalheritagestudies.org/site-admin/site-content/about-achs>> [Accessed

31 Jan. 2014].

- Candy, L., 2006. Practice based research: A guide. *CCS Report*, 1, pp.1--19.
- Carr, E., 2013. "Tourism and Heritage". *Building A New Heritage (RLE Tourism)*, p.50.
- Causer, 2013. *UCL Transcribe Bentham*. [online] Blogs.ucl.ac.uk. Available at:
<<http://blogs.ucl.ac.uk/transcribe-bentham/>> [Accessed 8 Jun. 2015].
- Causer, T. and Terras, M., 2014. 'Many hands make light work. Many hands together make merry work': Transcribe Bentham and crowdsourcing manuscript collections. In: M. Ridge, ed., *Crowdsourcing our Cultural Heritage*, 1st ed. Ashgate Publishing, Ltd.
- Chan, J., Dow, S. and Schunn, C., 2014. Conceptual distance matters when building on others' ideas in crowd-collaborative innovation platforms. In: *ACM*. pp.141--144.
- Chan, S., 2007. Tagging and Searching: Serendipity and museum collection databases. [online] Available at:
<<http://www.archimuse.com/mw2007/papers/chan/chan.html>>.
- Ciolfi, L., 2012. Social traces: participation and the creation of shared heritage. *Heritage and Social Media: Understanding Heritage in a Participatory Culture*, p.69.
- Ciolfi, L., Bannon, L. and Fernström, M., 2007. Visitors contributions as cultural heritage: designing for participation. [online] Available at: <<http://shura.shu.ac.uk/6575/>>.
- CNET, 2015. *Apple: More than 100 billion app downloads from iTunes Store - CNET*. [online] Available at: <<http://www.cnet.com/uk/news/wwdc-by-the-numbers/>> [Accessed 20 Jun. 2015].
- Community Archives and Heritage Group, 2015. [online] Available at:
<<http://www.communityarchives.org.uk>> [Accessed 7 Apr. 2015].
- Community Sites, 2015. *Websites & catalogues for community groups, museums & archives*. [online] Available at: <<http://www.communitysites.co.uk>> [Accessed 17 Apr. 2015].
- Council of Europe, 2005. *Framework Convention on the Value of Cultural Heritage for Society (CETS no. 199)*. [online] Available at:
<<http://conventions.coe.int/Treaty/EN/Treaties/Html/199.htm>> [Accessed 30 Jan.

- 2014].
- Crooke, E., 2010. The politics of community heritage: motivations, authority and control. *International Journal of Heritage Studies*, 16(1-2), pp.16--29.
- Crump, M., McDonnell, J. and Gureckis, T., 2013. Evaluating Amazon's Mechanical Turk as a Tool for Experimental Behavioral Research. *PLoS ONE*, 8(3), p.e57410.
- Daily Post, 2012. Mona Antiqua: Anglesey heritage to springs into life. [online] Available at: <Daily Post, 2012. "Mona Antiqua-anglesey-heritage-springs-2654047"> [Accessed 12 Jun. 2015].
- Daily Post, 2013. Power play: Will the dreams to regenerate Anglesey become a reality?. [online] Available at: <<http://www.dailypost.co.uk/business/business-news/dreams-regenerate-anglesey-become-reality-4924787>> [Accessed 2 Jun. 2015].
- De Beer, J. and Clemmer, C., 2009. Global Trends in Online Copyright Enforcement: A Non-Neutral Role for Network Intermediaries?. *Jurimetrics*, pp.375--409.
- De Cesari, C., 2010. World Heritage and mosaic universalism A view from Palestine. *Journal of Social Archaeology*, 10(3), pp.299--324.
- Deacon, H., Dondolo, L., Mrubata, M. and Prosalendis, S., 2004. *The subtle power of intangible heritage: Legal and financial instruments for safeguarding intangible heritage*. HSRC Press.
- Deloitte, 2013. *Tourism: jobs and growth*. [online] Available at: <https://www.visitengland.com/sites/default/files/downloads/deloitte_tourism_jobs_and_growth_final_proof_15_nov_tcm29-39296.pdf> [Accessed 14 Jun. 2015].
- Eccles, K. and Greg, A., 2014. Your Paintings Tagger: Crowdsourcing Descriptive Metadata for a National Virtual Collection. In: M. Ridge, ed., *Crowdsourcing our Cultural Heritage*, 1st ed. Farnham, Surrey: Ashgate Publishing, pp.185-210.
- Econsultancy, 2010. *National Trust: iPhone app review*. [online] Available at: <<https://econsultancy.com/blog/5567-national-trust-iphone-app-review>> [Accessed 20 Jun. 2015].

- ECOTEC Research and Consulting Limited, 2010. *Valuing the Welsh Historic Environment: Economic Impact Technical Report*. September 2010. [online] Available at: <<http://cadw.wales.gov.uk/docs/cadw/publications/ValuingWHEEnvironmentEconomicImpact.pdf>> [Accessed 28 Jan. 2015].
- Edgell Sr, D. and others, 1990. *International tourism policy*. New York: Van Nostrand Reinhold.
- Ehn, P., 1988. Playing the language-games of design and use-on skill and participation. *SIGOIS Bull.*, 9(2-3), pp.142-157.
- Ekinici, Y. and Hosany, S., 2006. Destination Personality: An Application of Brand Personality to Tourism Destinations. *Journal of Travel Research*, 45(2), pp.127-139.
- Elms, L., 2015. *iCAN Project Manager*. [personal email correspondence].
- English Heritage, 2015. *Historic England - Championing England's heritage | Historic England*. [online] Available at: <<http://www.english-heritage.org.uk/professional/advice/hpg/hpr-definitions/c/534826/>> [Accessed 28 Jan. 2015].
- Everton Football Club, 2015. *Fans' Forum*. [online] Available at: <<http://www.evertonfc.com/content/fans/fans-forum>> [Accessed 22 Jun. 2015].
- Fairclough, G., 2012. Others: A Prologue. In: E. Giaccardi, ed., *Heritage and social media: Understanding heritage in a participatory culture*, 1st ed. Routledge.
- Fallman, D. and Stolterman, E., 2010. Establishing criteria of rigour and relevance in interaction design research. *Digital Creativity*, 21(4), pp.265-272.
- Fallman, D., 2008. The Interaction Design Research Triangle of Design Practice, Design Studies, and Design Exploration. *Design Issues*, 24(3), pp.4-18.
- Fan, Q., 2011. An Evaluation Analysis of E-government Development by Local Authorities in Australia. *International Journal of Public Administration*, 34(14), pp.926-934.
- Ferris, K., Bannon, L., Ciolfi, L., Gallagher, P., Hall, T. and Lennon, M., 2004. Shaping experiences in the hunt museum: a design case study. In: *ACM*. pp.205--214.
- Fiegerman, S., 2015. *Apple has 100 billion app downloads -- or 119 apps per user*. [online] Mashable. Available at: <<http://mashable.com/2015/06/08/apple-100->

- billion-app-downloads/> [Accessed 20 Jun. 2015].
- Flinn, A. and Sexton, A., 2013. Research on community heritage: moving from collaborative research to participatory and co-designed research practice. In: *CIRN Prato Community Informatics Conference*. [online] Available at: <http://ccnr.infotech.monash.edu/assets/docs/prato2013_papers/flinn_secton.pdf> [Accessed 12 Jul. 2015].
- Flinn, A., 2012. Archives and their communities: Collecting histories, challenging heritage. *University of Brighton*.
- Frayling, C., 1993. *Research in art and design*. London: Royal College of Art.
- Garduño Freeman, C., 2010. Photosharing on Flickr: intangible heritage and emergent publics. *International Journal of Heritage Studies*, 16(4-5), pp.352-368.
- Garrod, B. and Fyall, A., 2000. Managing heritage tourism. *Annals of Tourism Research*, 27(3), pp.682-708.
- Gathercole, P. and Lowenthal, D., 1990. The Politics of the Past. *One World Archaeology*, 12.
- Gefen, D. and Straub, D., 2004. Consumer trust in B2C e-Commerce and the importance of social presence: experiments in e-Products and e-Services. *Omega*, 32(6), pp.407-424.
- George, C. and Scerri, J., 2007. Web 2.0 and User-Generated Content: legal challenges in the new frontier. *Journal of Information, Law and Technology*, 2.
- GfK Brand Index, 2013. *Anholt-GfK Nation Brand Index 2013*. [online] Available at: <<http://www.gfk.com/news-and-events/press-room/press-releases/Pages/Nation-Brand-Index-2013-latest-findings.aspx>> [Accessed 12 Jul. 2015].
- Giaccardi, E. and Palen, L., 2008. The Social Production of Heritage through Cross - media Interaction: Making Place for Place - making. *International Journal of Heritage Studies*, 14(3), pp.281-297.
- Giaccardi, E., 2004. *Memory and Territory: New Forms of Virtuality for the Museum*. [online] Museums and the web. Available at: <<http://www.museumsandtheweb.com/mw2004/papers/giaccardi/giaccardi.html>>

#ixzz3aNjKwV9P> [Accessed 12 May 2015].

- Giaccardi, E., 2012. *Heritage and social media: Understanding heritage in a participatory culture*.
- Gottschall, J., 2012. *The storytelling animal*. Boston: Houghton Mifflin Harcourt.
- Graham, B., 2002. Heritage as Knowledge: Capital or Culture?. *Urban Studies*, 39(5-6), pp.1003-1017.
- Gray, C. and Malins, J., 2004. Visualizing research. *A guide to the research*.
- Gray, D., 2004. *Doing research in the real world*. London: Sage Publications.
- Grobart, S., 2011. Multimedia Tour Guides on Your Smartphone. *New York Times*.
[online] Available at: <http://www.nytimes.com/2011/03/17/arts/design/apps-give-museum-visitors-multimedia-access.html?_r=0> [Accessed 14 May 2011].
- Gruffudd, P., 1996. The countryside as educator: schools, rurality and citizenship in inter-war Wales. *Journal of Historical Geography*, 22(4), pp.412-423.
- Gruffudd, P., 2015. Heritage as National Identity: Histories and Prospects of National Pasts. In: D. Herbert, ed., *Heritage, Tourism, and Society*, 1st ed. Mansell Publishing Limited, pp.49-67.
- Guba, E., Lincoln, Y. and others, 1994. Competing paradigms in qualitative research. *Handbook of qualitative research*, 2(163-194).
- Hall, C., 1994. *Tourism and politics*. Chichester: Wiley.
- Hall, C., 2000. *Tourism planning*. Harlow, England: Prentice Hall.
- Harrison, J., 2010. User-generated content and gatekeeping at the BBC hub. *Journalism Studies*, 11(2), pp.243-256.
- Harrison, R., 2009. What Is Heritage? In: R. Harrison, ed., *Understanding the Politics of Heritage*, 1st ed. Manchester: University of Manchester Press, pp.1-38.
- Harrison, R., 2013. *Heritage*. Milton Park, Abingdon: Routledge.
- Hassanein, K. and Head, M., 2007. Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International Journal of Human-Computer Studies*, 65(8), pp.689-708.

- Hazan, S., Hermon, S., Turra, R., Pedrazzi, G., Franchi, M., Wallergard, M., Theory Design – Update on D3.1. Available at http://www.vmust.net/sites/default/files/D3.1_update.pdf [Accessed 30 June 2016]
- Heffernan, V., 2011. App-omattox: The Civil War Goes Viral. *The New York Times*. [online] Available at: <<http://opinionator.blogs.nytimes.com/2011/04/24/app-omattox-the-civil-war-goes-virtual/>> [Accessed 3 May 2015].
- Heritage Lottery Fund, 2010. *Investing in Success: Heritage Tourism and the UK Economy*. pp.3-15.
- Heritage Lottery Fund, 2013. *New research reveals heritage tourism boosts UK economy in tough times*. [online] Available at: <<http://www.hlf.org.uk/news/Pages/HeritageTourism2013.aspx> - .UudwWXfFKuU> [Accessed 28 Jan. 2014].
- Heritage Lottery Fund, 2014. *All Our Stories evaluation*. [online] Available at: <<http://www.hlf.org.uk/all-our-stories-evaluation#.VaKcWpNVhHw>> [Accessed 13 May 2015].
- Hermida, A. and Thurman, N., 2008. A clash of cultures: The integration of user-generated content within professional journalistic frameworks at British newspaper websites. *Journalism Practice*, 2(3), pp.343-356.
- Hewison, R., 1987. *The heritage industry: Britain in a climate of decline*.
- Higherskillswales.co.uk, 2015. *KESS Bangor*. [online] Available at: <<http://www.higherskillswales.co.uk/kess/>> [Accessed 12 Jul. 2015].
- Himmelboim, I. and McCreery, S., 2012. New technology, old practices: Examining news websites from a professional perspective. *Convergence: The International Journal of Research into New Media Technologies*, 18(4), pp.427-444.
- Hirsch, T., 2011. More than Friends: Social and Mobile Media for Activist Organizations. In: M. Foth, ed., *Social Butterfly to Engaged Citizen: Urban Informatics, Social Media, Ubiquitous Computing, and Mobile Technology to Support Citizen Engagement*, 1st ed. Cambridge (Mass.): MIT Press, pp.135-149.

- Hofmann, S., Beverungen, D., Räckers, M. and Becker, J., 2013. What makes local governments' online communications successful? Insights from a multi-method analysis of Facebook. *Government Information Quarterly*, 30(4), pp.387-396.
- Howard, P., 2003. *Heritage: management, interpretation, identity*. London: A&C Black.
- Howe, J., 2006. *Crowdsourcing: Crowdsourcing: A Definition*. [online] Crowdsourcing.typepad.com. Available at: <http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html> [Accessed 15 May 2015].
- Howe, J., 2006. The rise of crowdsourcing. *Wired magazine*, 14(6), pp.1-4.
- Howe, J., 2008. *Crowdsourcing: How the power of the crowd is driving the future of business*. London: Random House Business.
- iCAN, Irish Community Archives Network, 2015. *About the Irish Community Archive Network*. [online] Available at: <http://www.ouririshheritage.org/category/about_the_irish_community_archive_network> [Accessed 5 Jun. 2015].
- Imagemakers Design and Consulting, 2010. *'Chester: Revealing the Rows' App, for iPhone and iPod Touch*. [online] Revealingtherows.co.uk. Available at: <<http://www.revealingtherows.co.uk/>> [Accessed 20 Jun. 2015].
- Isle of Anglesey County Council Economic Development, Tourism and Property Scrutiny Committee, 2012. . [online] Available at: <<http://www.ynysmon.gov.uk/Journals/2012/09/05/econ-dev--tourism-property-scrutiny-committee-11-9-2012-enc-b.pdf>> [Accessed 18 Jun. 2015].
- Isle of Anglesey County Council, 2012a. *Destination Management Plan 2012-2016, Appendix I*. [online] p.4. Available at: <<http://www.anglesey.gov.uk/Journals/2012/11/07/Anglesey-DMP-Appendix-I--Economic-impact.pdf>> [Accessed 20 Jan. 2014].
- Isle of Anglesey County Council, 2012b. *Destination Management Plan 2012-2016, Evidence Base: Appendix III The Visitor Market*. [online] p.9. Available at: <<http://www.anglesey.gov.uk/Journals/2012/11/07/Anglesey-DMP-Appendix-III-->

- Visitor-market-1.pdf> [Accessed 22 Jul. 2014].
- Isle of Anglesey County Council, 2015a. *Heritage*. [online] Available at:
<<http://www.visitanglesey.co.uk/en/about-anglesey/heritage/>> [Accessed 21 Jun. 2015].
- Isle of Anglesey County Council, 2015b. *Barclodiad y Gawres*. [online] Available at:
<<http://www.visitanglesey.co.uk/en/things-to-do/activities/barclodiad-y-gawres/#.VaKtdZNVhHx>> [Accessed 21 Jun. 2015].
- Isle of Anglesey County Council, 2015c. *Aberlleiniog Castle*. [online] Available at:
<<http://www.visitanglesey.co.uk/en/things-to-do/activities/aberlleiniog-castle/#.VaKuHpNVhHx>> [Accessed 21 Jun. 2015].
- Jenkins, H., 2006. *Convergence culture*. New York: New York University Press.
- Kamal, M., 2006. IT innovation adoption in the government sector: identifying the critical success factors. *Journal of Ent Info Management*, 19(2), pp.192-222.
- Kärnfelt, J., 2013. Knut Lundmark, Meteors and an Early Swedish Crowdsourcing Experiment. *Annals of Science*, 71(4), pp.449-473.
- Keillor, B. and Kannan, V., 2011. *International Business in the 21st century, Vol 1*. ABC-CLIO.
- Kidd, J., 2014. *Museums in the New Mediascape: Transmedia, Participation, Ethics*. Ashgate Publishing.
- Kincheloe, J., 2001. Describing the Bricolage: Conceptualizing a New Rigor in Qualitative Research. *Qualitative Inquiry*, 7(6), pp.679-692.
- Kulturarv.dk, 2015. *1001 Stories of Denmark*. [online] Available at:
<http://www.kulturarv.dk/1001fortaellinger/en_GB> [Accessed 12 May 2015].
- Kumar, N. and Benbasat, I., 2002. Para-social presence: A re-conceptualization of 'social presence' to capture the relationship between a web site and her visitors. In: *Proceedings of the 35th Annual Hawaii International Conference System Sciences, HICSS*. IEEE.
- Kumar, N. and Benbasat, I., 2006. Research Note: The Influence of Recommendations and Consumer Reviews on Evaluations of Websites. *Information Systems Research*,

17(4), pp.425-439.

- Kurin, R., 2004. Safeguarding intangible cultural heritage in the 2003 UNESCO Convention: a critical appraisal. *Museum international*, 56(1-2), pp.66--77.
- Lanier, J., 2010. *You are not a gadget*. Vintage.
- Larkham, P., 1995. Heritage as Planned and Conserved. In: D. Herbert, ed., *Heritage, tourism and society*, 1st ed. Mansell Publishing.
- Lévi-Strauss, C., 1966. *The savage mind*. London: Weidenfeld and Nicolson.
- Mediamatic collective, 2011a. *Who are the makers of the Monument?* [online] Available at: <<http://tinyurl.com/pr32faf>> [Accessed 12 Jul. 2015].
- Mediamatic collective, 2011b. *Digital Monument for the Dutch Jewish Community*. [online] Available at: <<http://www.joodsmonument.nl/?lang=en>> [Accessed 15 May 2015].
- Mediamatic collective, 2011c. *Jewish Monument Community*. [online] Available at: <<http://www.communityjoodsmonument.nl/?lang=en>> [Accessed 15 May 2015].
- Mediamatic, 2011d. *About Jewish Monument Community*. [online] Available at: <<http://www.communityjoodsmonument.nl/page/97/en>> [Accessed 15 May 2015].
- Mediamatic Collective, 2011e. *Terms of Use*. [online] Available at: <<http://www.communityjoodsmonument.nl/page/217033/nl?lang=en>> [Accessed 15 May 2015].
- Menter Môn, 2011a. *Brief for the production of trails and tours for the Mona Antiqua Heritage Tourism Project (HTP), Anglesey*. [online] Available at: <<https://museuminsider.co.uk/wp-content/uploads/2011/09/TRAILS.pdf>> [Accessed 20 Jan. 2015].
- Menter Môn, 2011b. *Business Plan: Mona Antiqua Heritage Project*.
- Menter Môn, 2012. *Mona Antiqua: Great Days Out*. [online] Available at: <<http://cadw.gov.wales/docs/cadw/publications/Heritage%20Tourism%20Project%20events%20-%20Mona%20Antiqua%202012.pdf>> [Accessed 22 Jun. 2015].
- Menter Môn, 2014. *Heritage and Tourism - Projects on Anglesey*. [online] Available at: <<http://www.mentermon.com/heritage-and-tourism.htm>> [Accessed 23 Jan. 2014].

- Merriman, N., 1991. *Beyond the glass case*. Leicester [England]: Leicester University Press.
- Miles, S., 2005. 'Our Tyne': iconic regeneration and the revitalisation of identity in NewcastleGateshead. *Urban Stud.*, 42(5), pp.913-926.
- MOCO, 2010. *About the project | Mass Observation Communities Online*. [online] Available at: <<http://tinyurl.com/nvbxpjk>> [Accessed 20 Jun. 2015].
- Mossberger, K., Wu, Y. and Crawford, J., 2013. Connecting citizens and local governments? Social media and interactivity in major U.S. cities. *Government Information Quarterly*, 30(4), pp.351-358.
- murmur, 2015. *About [murmur] -- hear you are --- [murmur] Toronto*. [online] Available at: <<http://www.murmurtoronto.ca/about.php>> [Accessed 4 Mar. 2014].
- Museum of London, 2015. *Street Museum*. [online] Available at: <<http://www.museumoflondon.org.uk/Resources/app/you-are-here-app/home.html>> [Accessed 20 Jun. 2015].
- MuseumNext, 2011. *Willem Velthoven - Mediamatic*. [online] Available at: <<https://vimeo.com/101307033>> [Accessed 23 Jun. 2015].
- My Brighton and Hove, 2015. *Origins of the site*. [online] Available at: <http://www.mybrightonandhove.org.uk/category_id__1009.aspx?path=>> [Accessed 5 May 2015].
- My Brighton and Hove, 2015. *Video Tutorial*. [online] Available at: <<http://www.mybrightonandhove.org.uk/page/contribute?path=0p1364p1013p>> [Accessed 5 May 2015].
- Mynors, C., 1984. Conservation areas: protecting the familiar and cherished local scene. *Journal of Planning and Environment Law*, pp.144--157.
- National Heritage Act, 1980. *National Heritage Act 1980*. [online] Available at: <<http://www.legislation.gov.uk/ukpga/1980/17/contents>> [Accessed 28 Jan. 2015].
- National Heritage Act, 1983. *National Heritage Act 1983*. [online] Available at: <<http://www.legislation.gov.uk/ukpga/1983/47/introduction/enacted>> [Accessed 28 Jan. 2015].

- National Heritage Act, 1985. *National Heritage Act 1985*. [online] Available at: <<http://www.legislation.gov.uk/ukpga/1985/16/contents>> [Accessed 28 Jan. 2015].
- National Library of Australia, 2014. *Australian Newspaper Digitisation Program*. [online] Available at: <<http://www.nla.gov.au/content/newspaper-digitisation-program>> [Accessed 17 Aug. 2014].
- National Trust, 2006. *Valuing our Environment: Economic Impact of the Coastal and Marine Environment of Wales*.
- New Wave Industries, 2014. *Tour Boston's Freedom Trail*. [online] New Wave Industries. Available at: <<https://itunes.apple.com/us/app/tour-bostons-freedom-trail/id379537767?mt=8>> [Accessed 20 Jun. 2015].
- New York Times, 2010. 5,000 Donors Help Louvre Buy a Painting. [online] Available at: <<http://www.nytimes.com/2010/12/18/world/europe/18iht-louvre18.html>> [Accessed 4 Jun. 2015].
- Newman, A. and McLean, F., 2006. The Impact of Museums upon Identity. *International Journal of Heritage Studies*, 12(1), pp.49-68.
- Newman, A. and McLean, F., 2006. The Impact of Museums upon Identity. *International Journal of Heritage Studies*, 12(1), pp.49-68.
- Niedderer, K. and Roworth-Stokes, S., 2007. The role and use of creative practice in research and its contribution to knowledge. In: *IASDR International Conference*.
- Nunn, S. and Rosentraub, M., 1997. Dimensions of Interjurisdictional Cooperation. *Journal of the American Planning Association*, 63(2), pp.205-219.
- Nuryanti, W., 1996. Heritage and postmodern tourism. *Annals of Tourism Research*, 23(2), pp.249-260.
- NYPL Labs, 2011. *What's on the menu?*. [online] Available at: <<http://menus.nypl.org/>> [Accessed 7 Apr. 2015].
- O'Brien, H. and Toms, E., 2009. The development and evaluation of a survey to measure user engagement. *Journal of the American Society for Information Science and Technology*, 61(1), pp.50-69.

- Ofcom, 2010. *Consumers spend almost half of their waking hours using media and communications..* [online] Available at: <<http://tinyurl.com/q67k5r6>> [Accessed 12 May 2015].
- Oldweather.org, 2015. *Old Weather - Our Weather's Past, the Climate's Future.* [online] Available at: <<http://www.oldweather.org/>> [Accessed 12 Jul. 2015].
- Oomen, J. and Aroyo, L., 2011. Crowdsourcing in the cultural heritage domain: opportunities and challenges. In: *Proceedings of the 5th International Conference on Communities and Technologies.* ACM, pp.138--149.
- O'Reilly, T., 2005. *Web 2.0: Compact Definition? - O'Reilly Radar.* [online] Radar.oreilly.com. Available at: <<http://radar.oreilly.com/2005/10/web-20-compact-definition.html>> [Accessed 24 Jun. 2015].
- Papers of the War Department, 2012. *About Papers of the War Department.* [online] Available at: <<http://wardepartmentpapers.org/about.php>> [Accessed 6 May 2015].
- Parkin, I., Parr, C., Blockley, M., Sutherland, F., Skewis, I., Brennan, and Whalley, 2003. *Mona Antiqua Regional Interpretive Strategy for Anglesey.* Dartmouth, Devon: Parkin Consultancy.
- Peoples Collection Wales, 2015. *Bangor & Menai Bridge.* [online] Available at: <<http://www.peoplescollection.wales/items/44116>> [Accessed 24 May 2015].
- Peoples Collection Wales, 2015. *People's Collection Wales.* [online] Available at: <<http://www.peoplescollection.wales/>> [Accessed 24 May 2015].
- Peoples Collection Wales, 2015. *Peoples Collection Wales.* [online] Available at: <<http://www.peoplescollection.wales/discover/query/Bangor>> [Accessed 24 May 2015].
- Perkin, C., 2010. Beyond the rhetoric: negotiating the politics and realising the potential of community - driven heritage engagement. *International Journal of Heritage Studies*, 16(1-2), pp.107-122.
- Peters, H., 1999. Making Tourism Work for Heritage Preservation: Lijiang, A Case Study. In: *International Conference on Anthropology, Chinese Society and Tourism.*

- PLB Consulting Ltd, 2010. *Interpretation Plan for the Princes of Gwynedd for Cadw*.
 [online] Available at:
 <http://cadw.gov.wales/docs/cadw/publications/InterpplanPrincesGwynedd_EN.pdf> [Accessed 13 Jun. 2015].
- Poole, N., 2007. *Local Authority Museum Websites: A report*. Collections Trust. [online]
 Available at:
 <<http://www.collectionstrust.org.uk/media/documents/c1/a935/f6/LAsites.pdf>>
 [Accessed 3 May 2015].
- Pretty, Jules N. "Participatory learning for sustainable agriculture." *World development* 23.8 (1995): 1247-1263.
- Project for Public Spaces, 2015. *What is Placemaking? - Project for Public Spaces*.
 [online] Available at: <http://www.pps.org/reference/what_is_placemaking/>
 [Accessed 3 Jul. 2015].
- Public Catalogue Foundation, 2015. *Your Paintings Tagger*. [online] Available at:
 <<http://tagger.thepcf.org.uk/>> [Accessed 2 Jun. 2015].
- Purser, M., 2012. Emptying the magician's hat: Participatory GIS-based research in Fiji. *The Oxford Handbook of Public Archaeology*, Oxford University Press, Oxford, pp.496--512.
- Reason, P. and Bradbury, H., 2001. *Handbook of action research: Participative inquiry and practice*. Los Angeles: Sage, p.2.
- Reddick, C. and F. Norris, D., 2013. E-participation in local governments. *Transforming Government: People, Process and Policy*, 7(4), pp.453-476.
- Rice, R. and Case, D., 1983. Electronic Message Systems in the University: A Description of Use and Utility. *J Communication*, 33(1), pp.131-152.
- Richardson, J., 1986. *Handbook of Theory and Research for the Sociology of Education*.
- Richardson, L., 2014. *Public archaeology in a digital age*. PhD Thesis, University College London.
- Ridge, M. ed., 2014. *Crowdsourcing our Cultural Heritage*. 1st ed. Ashgate Publishing, Ltd.

- Ridge, M., 2012. *Frequently Asked Questions about crowdsourcing in cultural heritage - Open Objects*. [online] Open Objects. Available at:
 <<http://www.openobjects.org.uk/2012/06/frequently-asked-questions-about-crowdsourcing-in-cultural-heritage/>> [Accessed 12 Jul. 2015].
- Roberts, L. and Simpson, F., 1999. Developing Partnership Approaches to Tourism in Central and Eastern Europe. *Journal of Sustainable Tourism*, 7(3-4), pp.314-330.
- Robson, C., 2012. *Using Mobile Technology and Social Networking to Crowdsourc Citizen Science*. eScholarship. [online] Available at:
 <<http://escholarship.org/uc/item/7pb628kb>> [Accessed 22 Jun. 2015].
- RunCoCo, 2011a. *How to Run a Community Collection online*. [online] Available at:
 <<http://projects.oucs.ox.ac.uk/runcoco/index.html>> [Accessed 12 Jun. 2013].
- RunCoCo, 2015b. *Projects and Case Studies*. [online] Available at:
 <<http://projects.oucs.ox.ac.uk/runcoco/casestudies/index.html>> [Accessed 20 Jun. 2015].
- RunCoCo, 2015c. *Developing community content projects*. [online] Available at:
 <<http://projects.oucs.ox.ac.uk/runcoco/casestudies/projects.html>> [Accessed 20 Jun. 2015].
- Russo, A., Boniface, P. and Shoval, N., 2001. Tourism Management in Heritage Cities. *Annals of Tourism Research*, 28(3), pp.824-826.
- Saikaly, F., 2005. Approaches to design research: Towards the designerly way. In: *sixth international conference of the European Academy of Design (EAD06)*.
- Samuel, R., 2012. *Theatres of memory: Past and present in contemporary culture*.
- Schol^n, D., 1983. *The reflective practitioner*. New York: Basic Books.
- Schouten, F., 1995. Heritage as Historical Reality. In: D. Herbert, ed., *Heritage, Tourism, and Society*, 1st ed. Mansell Publishing Limited, pp.21-31.
- Seago, A. and Dunne, A., 1999. New Methodologies in Art and Design Research: The Object as Discourse. *Design Issues*, 15(2), pp.11-17.
- Selin, S., 1999. Developing a Typology of Sustainable Tourism Partnerships. *Journal of Sustainable Tourism*, 7(3-4), pp.260-273.

- Sell2wales, 2015. *About sell2wales*. [online] Available at:
<<http://www.sell2wales.gov.uk/>> [Accessed 21 Jun. 2015].
- Sheail, J., Treweek, J. and Mountford, J., 1997. The UK transition from nature preservation to “creative conservation”. *Envir. Conserv.*, 24(3), pp.224-235.
- Shift Design, 2015. *Historypin - Shift*. [online] Available at:
<<http://www.shiftdesign.org.uk/products/historypin/>> [Accessed 10 May 2015].
- Shirky, C., 2010. *Cognitive surplus*. New York: Penguin Press.
- Silberman, N. and Purser, M., 2012. Collective memory as affirmation: people-centered cultural heritage in a digital age. In: E. Giaccardi, ed., *Heritage and Social Media*, 1st ed. London: Routledge, pp.13-30.
- Simon, Gail. "Praction research: A model of systemic inquiry." *Human Systems: The Journal of Therapy, Consultation & Training* 23.1 (2012): 103-124.
- Simon, N., 2010. *The participatory museum*. Santa Cruz, Calif.: Museum 2.0.
- Simula, H., 2013. The Rise and Fall of Crowdsourcing?. In: *2013 46th Hawaii International Conference on System Sciences (HICSS)*. pp.2783â€“2791.
- Smidt, C., 2011. *Ladies of the night, sailors and the Little Mermaid - 1001 Stories of Denmark*. [online] Kulturarv.dk. Available at:
<http://www.kulturarv.dk/1001fortaellinger/en_GB/nyhavn/stories/newest/1/ladies-of-the-night-sailors-and-the-little-mermaid> [Accessed 12 May 2015].
- Smith, L., 2006. *The uses of heritage*. London: Routledge.
- Speed, C. and Giaccardi, E., 2012. mobile ouiJa boards. *Heritage and Social Media: Understanding Heritage in a Participatory Culture*, pp.179--196.
- Springer, M., Dulabahn, B., Michel, P., Natanson, B., Reser, D., Ellison, N., Zinkham, H. and Woodward, D., 2008. For the common good: The Library of Congress Flickr pilot project. [online] Washington: Library of Congress. Available at:
<http://www.loc.gov/rr/print/flickr_report_final.pdf>.
- Steinfeld, C., 1986. Computer-mediated communication in an organizational setting: Explaining task-related and socioemotional uses. *Communication yearbook*, 9, pp.777--804.

- Strandlines, 2015. *About Strandlines*. [online] Available at:
<<http://www.strandlines.net/about>> [Accessed 20 May 2015].
- Strunk, W., 1918. *The elements of style*. pp.Ch 3, Sect 11.
- Swartout, C., 2011. Toward a Regulatory Model of Internet Intermediary Liability: File-Sharing and Copyright Enforcement. *Nw. J. Int'l L. & Bus.*, 31, p.499.
- The History Channel, 2011. *Civil War Today on iPad*. [online] Available at:
<<http://www.history.com/interactives/civil-war-today>> [Accessed 20 Jun. 2015].
- Timothy, D., 1998. Cooperative Tourism Planning in a Developing Destination. *Journal of Sustainable Tourism*, 6(1), pp.52-68.
- Tlili, A., 2008. Behind the Policy Mantra of the Inclusive Museum: Receptions of Social Exclusion and Inclusion in Museums and Science Centres. *Cultural Sociology*, 2(1), pp.123-147.
- Tobin, L., 2013. *Crowdsourcing through Historypin*. [online] Dh-sandbox.tchpc.tcd.ie. Available at: <<http://dh-sandbox.tchpc.tcd.ie/~tobinlo/blog/?p=171>> [Accessed 3 Mar. 2015].
- Tourism Alliance, 2014. *UK Tourism Statistics 2014*. [online] Available at:
<http://www.tourismalliance.com/downloads/TA_365_390.pdf> [Accessed 13 Jun. 2015].
- Trant, J., 2009. *Tagging, Folksonomy and Art Museums: Results of steve.museum's research*. [online] Available at:
<http://conference.archimuse.com/jtrants/stevemuseum_research_report_available> [Accessed 12 Jul. 2015].
- Turkle, S., 2011. *Life on the Screen*. Simon and Schuster, p.57.
- UNESCO, 2003. *Text of the Convention for the Safeguarding of Intangible Cultural Heritage*. [online] Unesco. Available at:
<<http://www.unesco.org/culture/ich/index.php?lg=EN&pg=00022>> [Accessed 30 Jan. 2014].
- University of Oxford, 2008. *The Great War Archive*. [online] Available at:
<<http://www.oucs.ox.ac.uk/ww1lit/gwa>> [Accessed 12 Mar. 2014].

- University of Oxford, 2013. *Ancient Lives*. [online] Available at:
<<http://www.ancientlives.org/about>> [Accessed 4 Mar. 2015].
- Vines, John, et al. "Configuring participation: on how we involve people in design." *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. ACM, 2013.
- Virtual Museum Transnational Network, "What is a virtual museum?" Available at <http://v-must.net/virtual-museums/what-virtual-museum> [Accessed 30 June 2016].
- Visit Wales, 2015a. *Strategies for tourism in Wales*. [online] Available at:
<<http://gov.wales/topics/tourism/development1/strategypolicy/?lang=en>> [Accessed 16 Jun. 2015].
- Visit Wales, 2015b. [online] Available at: <<http://www.walesonview.com/PDF-COLLECTIONS/RELIGIOUS%20&%20HISTORIC/ANCIENT-SITES-NEOLITHIC-TO-IRON-AGE-VWIC-01-14.pdf>> [Accessed 22 Jun. 2015].
- Visit Wales, 2015c. [online] Available at: <<http://www.walesonview.com/PDF-COLLECTIONS/RELIGIOUS%20&%20HISTORIC/CHURCHES-CHAPELS-AND-SACRED-SITES-VWIC-01-14.pdf>> [Accessed 22 Jun. 2015].
- VisitBritain, 2013. *Visitor Economy Facts, Updated November 2013*. [online] Available at:
<<http://www.visitbritain.org/insightsandstatistics/visitoreconomyfacts/>> [Accessed 28 Jan. 2014].
- Visser, Jasper. "About Jasper Visser," Available at
<http://themuseumofthefuture.com/about/> [Accessed 30 June 2016]
- Voss, J., Wolfenstein, G. and Young, K., 2015. From crowdsourcing to knowledge communities: Creating meaningful scholarship through digital collaboration. In: *Museums and the Web 2015*. [online] Available at:
<<http://mw2015.museumsandtheweb.com/paper/from-crowdsourcing-to-knowledge-communities-creating-meaningful-scholarship-through-digital-collaboration/>> [Accessed 21 Jun. 2015].

- WalesOnline, 2011. *Commissioners take over troubled Anglesey council*. [online] Available at: <<http://www.walesonline.co.uk/news/wales-news/commissioners-take-over-troubled-anglesey-1846718?pageNumber=5>> [Accessed 23 Jun. 2015].
- Walsh, K., 1992. *The representation of the past*. London: Routledge.
- Watson, S. and Waterton, E., 2010. Heritage and community engagement. *International Journal of Heritage Studies*, 16(1-2), pp.1-3.
- Welsh Assembly Government, 2000. *Achieving our Potential, 2000-2013: Tourism Strategy for Wales*. [online] Available at: <<http://tinyurl.com/njvgch8>> [Accessed 3 Jun. 2015].
- Welsh Government, 2014. *People's Collection Wales*. [online] Available at: <<http://gov.wales/topics/cultureandsport/museumsarchiveslibraries/cymal/people-scollectionwales/?lang=en>> [Accessed 23 Jun. 2015].
- Winter, R., Griffiths, M. and Green, K., 2000. The 'Academic' Qualities of Practice: What are the criteria for a practice-based PhD?. *Studies in Higher Education*, 25(1), pp.25-37.
- wirefresh, 2011. *National Trust launches free Android app but it's a reet bloater*. [online] Available at: <<http://www.wirefresh.com/national-trust-launches-free-android-app-but-its-a-reet-bloater/>> [Accessed 20 Jun. 2015].
- Wir-waren-so-frei.de, 2013. *Wir waren so frei*. [online] Available at: <<https://www.wir-waren-so-frei.de/>> [Accessed 14 Mar. 2014].
- Yee, J., 2010. Methodological innovation in practice-based design doctorates. *Journal of Research Practice*, 6(2), p.15.
- Yoo, Y. and Alavi, M., 2001. Media and Group Cohesion: Relative Influences on Social Presence, Task Participation, and Group Consensus. *MIS Quarterly*, 25(3), p.371.
- York Museums Trust, 2015. *Barker Tower: History of York*. [online] Available at: <<http://www.historyofyork.org.uk/timeline/medieval/barker-tower>> [Accessed 14 May 2015].
- York Museums Trust, 2015. *Welcome to the History of York*. [online] Available at: <<http://www.historyofyork.org.uk/>> [Accessed 12 Jul. 2015].

Young, K. and Saver, J., 2001. The Neurology of Narrative. *SubStance*, 30(1), pp.72-84.

Zooniverse, 2011. *Old Weather - Our Weather's Past, the Climate's Future*. [online] Oldweather.org. Available at: <<http://www.oldweather.org/>> [Accessed 4 Dec. 2014].

Appendix 1: KESS Studentship: Proposal Utilizing Digital Technologies

Susanne Intriligator
 KESS Studentship Proposal
 17 March 2010

"Utilizing Digital Technologies To Enhance Educational/Cultural Tourism to North Wales"

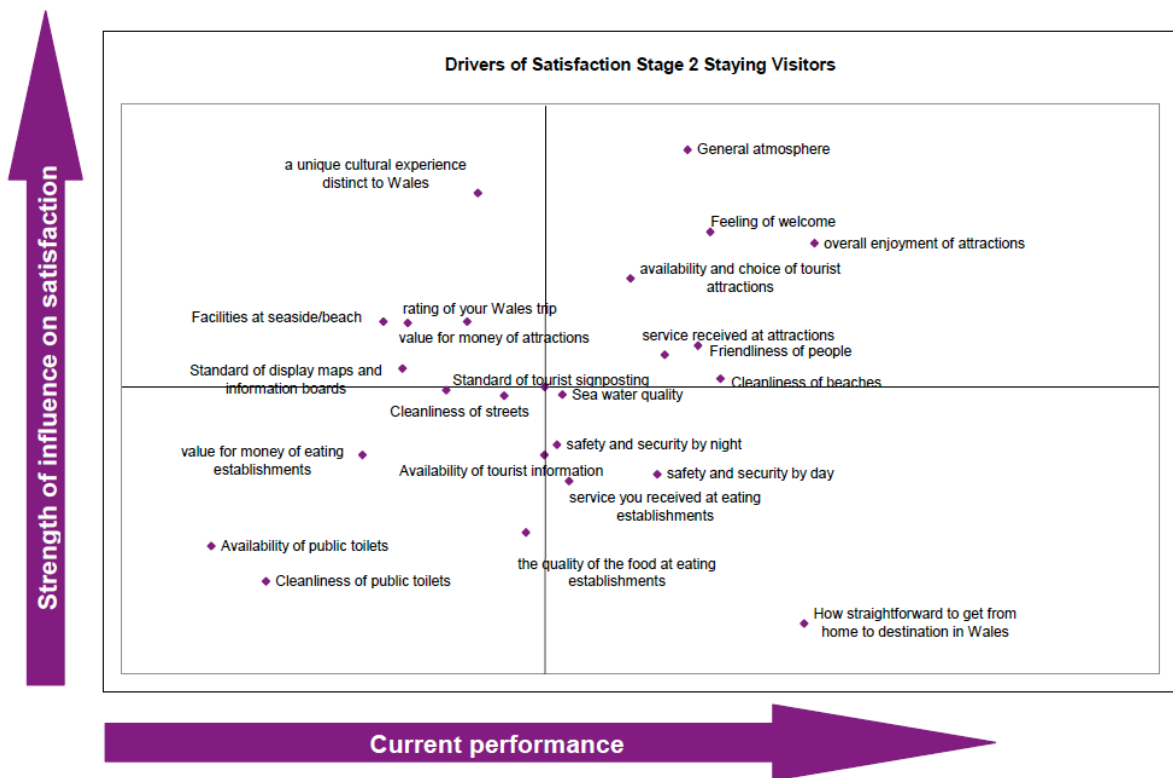
Thesis: Strategic use of emerging digital technologies could offer North Wales a cost-effective method to broaden and deepen its appeal/efficacy as a destination for educational/cultural tourism.

The Problem: Transmitting a unique cultural experience

A 2009 study of 10,000 visitors to Wales found that Welsh tourism outlets succeeded in providing “a feeling of welcome” and “general atmosphere,” but they failed to meet expectations in providing “a unique cultural experience distinct to Wales.” While many tourists rated this an important reason they chose Wales, only three in ten rated their trip as *excellent* in terms of giving them “a unique Welsh cultural experience.”¹

From “WALES VISITOR SURVEY 2009: STAYING VISITORS REPORT, Executive Summary

Figure 3



April - October 2009,” by Beaufort Research.

<http://wales.gov.uk/docs/drah/publications/Tourism/100125stayingvisitor09eng.pdf>

How is this possible? To those who live in Wales, Welsh culture abounds. From S4C to eisteddfodau to the omnipresent Welsh language, we are surrounded in a unique and distinct culture. How does it *not* transmit to our guests?

The same study reported that 72% of respondents had visited Wales's "castles/stately houses/historic sites." Clearly, *learning* about Wales's history and culture is an important impetus to travel. Yet the majority of tourists leave unsatisfied. What are our historic sites offering? How can it be improved?

Educational tourism: trends, desires, responses

Around the world, tourists value educational content. According to an online study of 10,000 international tourists by VisitBritain, visitors across the age range prioritize educational value in a destination. Among factors in determining a destination, "history and culture" ranked fourth – above weather, beaches, and sport. The only more important factors were "natural scenic beauty," "away from the crowds" and "famous locations."² Although Wales may not boast many internationally famous locations, it should score well in natural scenic beauty and "away from the crowds." If it could boost the efficacy of its transmission of history and culture, it could become a more desirable location.

On another index in the same study, participants were asked to rate the importance of different activities in their lives. The top five answers: Spending time with loved ones, keeping fit, relaxing, enjoying food and drink, and "self-development and learning." Education ranks higher in personal priorities among travellers than both domestic and foreign travel and even "my career"³

Based on such statistics, it makes sense to consider how North Wales as a destination addresses the educational drive among tourists.

We should consider especially the needs/wants of the older traveller. According to many researchers, travellers over age 55:

- Have more disposable income
- Prefer educational holidays

For example, tourism researcher H. Loveseed wrote: "The mature market in North America is changing, becoming more adventurous and demanding a wider range of choice. Activity and special interest holidays, especially those with an educational component, are gaining in popularity. The marketing of leisure travel to older people is changing as well. Most older people resent being patronized and also resent too many tailor-made products."⁴

The world leader in educational tourism is the US-based Exploritas, formerly Elderhostel, a non-profit that run over 8,000 educational tours around the world. In preliminary research, it seems that Exploritas runs the *only* web-advertised, multi-day, educationally-based tours of North Wales, intended for adults from abroad. (For example, see their upcoming "Castle, Canal, and Mountain Adventure" trip in May 2010. It explores Llangollen, Llandudno, and Conwy, while participants stay for four nights in Ruthin Castle.)

If the demand for educational tourism is rising internationally, why is there so little on offer in North Wales? How can the region better leverage its considerable cultural/historical/educational resources to meet this demand?

A solution? Digital Technologies

How could Cadw, the caretakers of Conwy Castle, make its history 'come to life'?

1. They could hire a troupe of actors to portray soldiers, servants, and gentry and re-enact the 1403 capture of the castle by Welsh rebels, or

2. They could hire a team of tour guides and storytellers, or
3. They could utilize emerging digital technologies to film local actors and experts and make educational content available 24-7, via mobile devices, touch screen kiosks, and the internet

If well used, these emerging technologies offer venues the power to reach meaningfully and dramatically visitors of all ages – before, during, and after their visits.

At the moment, with the advent of GPS and Google Earth, there's an explosion of new place-based mobile applications that promise to transform tourism. For example, an app called Minotour uses GPS to link a tourist's mobile to place-relevant Wikipedia entries, say, on the Brandenburg gate.⁵ Then, the user enters a walking destination, say somewhere else in Berlin, and Minotour maps a customised route, providing a "narrative" of 7 more Wikipedia entries on sites along the way. Voila! Instant walking tour of Berlin!

Such digital augmentation could create tourism content that is endlessing customizable: botany tours of Anglesey, Real-life princes of Wales, Druid history tours for Pagans, 'Retrace Darwin's steps in North Wales,' "Walk the Sites of Bryn Terfel's Life Story," "Driving the A55: history and culture along the motorway," "Llandudno to Cardiff: Driving the A470."

In addition, Google Street now contains plenty of street-level local views. This could be mined to create customised "walking tours" of North Wales towns, which could be further linked to tourism websites, local sites, and local shops.

Currently in development is another app whereby a visitor to a castle, say, could hold up his phone/camera to a wall, and via GPS and the internet, get a feed of images showing castle life in that place 600 years ago -- white washed walls, flags waving, soldiers on patrol, milk maids, etc.

North Wales has a great deal to offer as an educational and heritage destination, yet many venues fail to transmit their unique story. These new technologies offer a way to convey not just information but a 'feel' for the place, a 3-D visual sense of "being there" that transcends time and space. If tourism outlets in North Wales could take advantage of early research into these technologies, it could create an edge for North Wales.

My research

For my PhD, I propose to create a body of research on:

1. Current digital technologies related to tourism, particularly edu-tourism
2. Current trends in tourism to North Wales
 - a. Overall financial picture, markets
 - b. What is the socio-economic status, background of tourists, mining data from Visit Wales, VisitBritain, and/or original research
 - c. What do tourists want before, during, after visits?
 - d. How is edu-tourism to Wales marketed abroad?
3. Connecting to others working in digital technologies in North Wales
 - a. Ray Karl, creating digital virtual tours of castles including historically accurate music
 - b. The new Bangor Innovation Centre, with its state-of-the-art conference rooms and audio/video facilities. Could it become a

hub of digital edu-tourism for the area? Imagine huge video displays combined with expert lectures on topics such as “Introduction to Snowdonia,” “The Welsh Princes,” or “The Castles of Edward I.”

As a result I propose a dissertation that would posit how these technologies could be integrated into the North Wales tourism strategy, in order to augment the area’s invitation to visitors.

References:

1. “Wales Visitor Survey 2009: Staying Visitors Report, Executive Summary, April to October 2009” by Beaufort Research for Visit Wales, p. 7.
2. “Britain Inbound: Market and Trade Profile Updated November 2009,” by VisitBritain, p. 8. See: http://www.visitbritain.org/Images/Inbound%202009_tcm139-167238.pdf
3. *ibid*, p.6
4. “US Mature Travellers Market,” by Loverseed, H. See <http://www.cababstractsplus.org/abstracts/Abstract.aspx?AcNo=19931856837>
5. See: http://www.exploritas.org/programs/programdetail.asp?RowId=1%2D46F3T8&cm_s p=HP%20Test-_-Personalized%20HP-_-slot2%20International-16292
5. “Generating Educational Tourism Narratives from Wikipedia,” by Brent Hecht, Nicole Starosielski, Drew Dara-Abrams, *Proceedings of the 2007 Meeting of The AAG, 2007*.

Appendix 2: Using Digital Technologies to Enhance Tourism to North Wales

Using Digital Technologies to Enhance Tourism to North Wales

Susanne Skubik Intriligator
Neil Johnstone
Eben Muse

KESS Quarterly Meeting 1

- Overview of Project
 - “Draft”
- Input from Neil, Menter Mon
- Focus on “applied side”

UK Tourism

- £86 billion total spent in 2007
 - 4 times the size of farming
- £16 billion by overseas residents
- £21 billion by UK residents, staying 1+ nights
- £45 billion by UK residents on day trips
 - 4/5 of it domestic tourism

Figures from: *British Tourism Framework Review, 2008*

Tourism to Wales, International

INTERNATIONAL VISITORS
(Source: IPS 2008, January – September)

Trips (millions)
Wales’ ‘market share’ of all trips to UK by international visitors: **3.6%** (3.1% in corresponding period in 2007)

		Change from same period in 2007
Wales	0.902	+16.5%
UK	25.001	+ 0.8%

Expenditure (£millions)
Wales’ ‘market share’ of all expenditure in UK by international visitors: **2.2%** (no change from corresponding period in 2007)

		Change from same period in 2007
Wales	255	-4%
UK	12,505	+4%

Tourism to Wales, Domestic

STAYING VISITORS FROM THE UK
(Source: UKTS 2008, January – September)

Trips (millions)
Wales’ ‘market share’ of all staying trips in UK by UK residents: **7.7%** (7.4% in corresponding period in 2007)

		Change from same period in 2007
Wales	7.04	+1.1%
UK	91.37	-2.5%

Expenditure (£millions)
Wales’ ‘market share’ of all expenditure on staying trips in UK by UK residents: **6.9%** (6.8% in corresponding period in 2007)

		Change from same period in 2007
Wales	1,166	+4.8%
UK	16,859	+2.3%

North Wales Tourism, 2007

- £1.8 billion per year
- Supports 37,500 jobs
- 8 million staying trips
- 17 million day-trips
- **90% from the UK**

Figures from: *TOURISM STRATEGY NORTH WALES 2010-2015*

WAG Tourism Strategy, North Wales 2010-2015:

“What do visitors think?”

- Wales is now largely seen as a place for short breaks and additional holidays by the British.
- The level of knowledge of Wales and what it has to offer is quite poor and overseas markets have even less knowledge as have younger consumers.
- The language and culture tends to divide people with some seeing it as a positive and others seeing it as off-putting and excluding.



Day-Trippers, all Wales, 2009

- Just over three quarters (75%) of Day Visitors claimed it was “**very important to choose a holiday destination that preserves its culture and heritage**”
- The element “**a unique cultural experience distinct to Wales**” is a strong influence on trip satisfaction (it is the second most highly rated element).



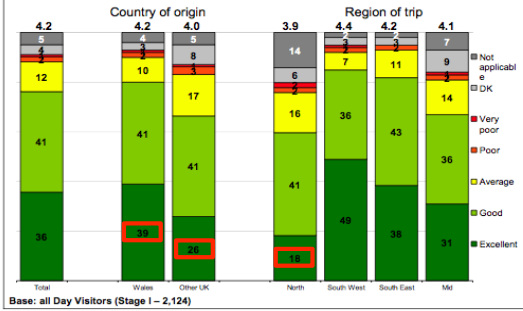
Figures from: WALES VISITOR SURVEY 2009

Day-Trippers 2009, cont'd

- 36% rated their trip as *excellent* in terms of giving them a “**distinct Welsh experience.**”
- 39% of day visitors from Wales
- 26% of those from the rest of the UK



RATING OF HAVING “DISTINCT WELSH EXPERIENCE” (%)



Why does North Wales score low on “distinct Welsh experience”?

- Less of it?
- Sparse population?
- Harder to find?
- Language barriers?
- ???

There is lots “on”

- Next 30 days, within 20 miles of Bangor

Events <http://www.gonorthwales.co.uk/>

Searching from 6 Oct 2010 for 30 day(s)

Select Event name for further details.

dates	events	venue	times	contact details
Sat 22 May 2010 - Sat 16 Oct 2010	The Junkyard Museum of Awkward Things	Oriel Mostyn 1/2 Vaughan Street, LLANDUDNO, Conwy		01492 870201
Thu 1 Jul 2010 - Thu 28 Oct 2010	Antiques Fair	St Mary's Church, Betws y Coed BETWS Y COED, Conwy	09:00 to 16:00	01492 518597
Sat 3 Jul 2010 - Fri 24 Dec 2010	History Gallery	Oriel Ynys Môn Rhosanerch, LLANGFNIL, Isle of Anglesey		01248 724444
Sat 24 Jul 2010 - Sun 23 Jan 2011	Kyffin Williams - Unseen Work	Oriel Kyffin Williams Rhosanerch, LLANGFNIL, Isle of Anglesey		01248 724444
Fri 3 Sep 2010 - Sat 9 Oct 2010	Exhibition of work by Cefyn Burgess	Galeri Caerllarfon Doc Victoria, CAERNARFFON, Gwynedd		01286 683222
Sat 11 Sep 2010 - Sun 7 Nov 2010	Welf Roberts - John Meirion Morris	Oriel Ynys Môn Rhosanerch, LLANGFNIL, Isle of Anglesey		01248 724444
Sun 12 Sep 2010 - Sun 17 Oct 2010	Biodiversity - who cares?	National State Museum Llanberis Padarn Country Park, LLANBERIS, Gwynedd		01286 870630

Cultural Tourism

- Growth sector within tourism globally, esp. among North Americans
- Awareness of “missed opportunities” in Wales
 - 2007 WAG Review of Cultural Tourism
 - 2008 Cultural Tourism Action Plan

• <http://wales.gov.uk/topics/tourism/development/strategy/policy/culturaltourismreview/?lang=en>



<http://www.106group.com>

WAG Cultural Tourism Action Plan 2008 -2011, excerpts:

- Croeso i Gymru - this element of the programme will provide help to businesses and communities to introduce a **Welsh Sense of Place**. Seminars will be held by Sense of Place advisors. The seminars will be extended to include the wider community.
- Casgliad y Bobl/**People's Collection** will establish an innovative service to collect, interpret, distribute and discuss Wales' cultural heritage in an online environment. Visitors to Wales have been identified as a target audience for the collection and a key aim of the project will be to drive visitors to visit the sites that are featured on the website.

Casgliad y Werin Cymru
People's Collection Wales



Tourism, summary

- Huge industry
- Important to economic stability of region
- 90% from the UK, mostly English
- Majority day-trippers
- N. Wales scores low on “distinct Welsh experience”
- Push for cultural tourism

Heritage Tourism

- Preservation Vs. Commercialisation
- Who defines heritage?
 - All heritage is constructed, political
 - “The Past Is a Foreign Country” (Lowenthal)
 - “incomers” vs. *gwerin* (Prys Gruffudd)
 - “The concept of heritage ... embodies notions of politics and identity that speak across the centuries. Heritage is at its most potent when it recognizes this and uses its undoubted power to engage with and to enliven contemporary debates. It is at its most dangerous when it seeks to obscure this power and attempts to codify a hegemonic version of history.”
Prys Gruffudd

How to Enhance tourism?

- Timely, accurate information
- Customisable, personalised touring
 - Age groups
 - Interests
 - Tech proficiency levels
- Piles of rocks ⇔ engaging experiences

Caer Leab



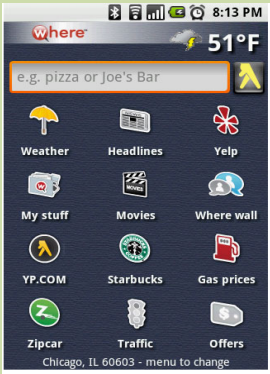
- Create a distinctly Welsh “sense of place”

Examples Of “Digital Enrichment”


- Primarily mobile apps running on smartphones

Where

- GPS-based
- Weather
- Accomodation
- Petrol
- Local news
- Restaurants



Museum of London iPhone App Blends Old/New London



A frost fair in front of London bridge, old and new.

Museum of London iPhone App Blends Old/New London



All change in New Change.

Time Travel Explorer

History in the palm of your hand

Home Maps About FAQ Blog Contact Us

Travel through time...

Explore London's history with old maps on your iPhone

- High-quality digitised images of antique historical maps
- 750 points of interest with full descriptions
- 1500 photos of life in London up to 100 years ago
- 150 audio guides allowing you to listen as you walk
- 60 minutes expert commentary from a certified Blue Badge guide
- Seamless transfer from one era to another - travel through time!

LEARN MORE >

Boston "Freedom Trail"

- 3 million visitors a year

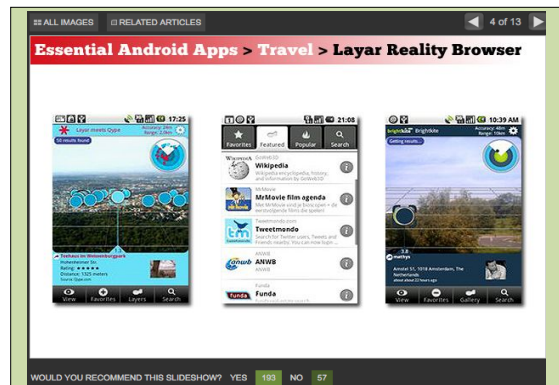


BOSTON FREEDOM TRAIL

making history come alive!



HD VIDEO OF ALL STOPS!



Toura

- Based in New York City and in Europe
- Focused on partnering with museums and tourism venues to create apps
- Own platform software, proprietary
- No up-front cost to venue
- Split profits from sales, possible advertising



Tourism Apps

"Walk into a crowded museum, and what do you see? People with cameras or cellphones snapping pictures of people looking at objects. The artwork, document or fossil is a tourist site; the photograph is our souvenir. And the looking — for which museums were created — becomes a memory before it has even begun.

Now something else is in play that **may distance the museum experience even further** — though it intends to do just the opposite."

Venues, Compare/Contrast by NYT

- MoMA
- Brooklyn Museum
- American Museum of Natural History

Museum Apps, Pros:

- Indoor mapping, Orientating
 - Objects, exits, restrooms, cafes
 - Esp. AMNH's wi-fi-enabled service
 - location-finding
 - Sample tours from current location
- Social networking, sharing favourites
 - "Like this" voting
 - Gallery tag: "misty," "blue"

Museum Apps, Cons:

- Hard to find specific objects, keying in long ID numbers
- Inconsistent use of commentary
- Less information than on object labels
- Distracting, interferes with experience
- More effort than walking and looking
- "isolates objects rather than connecting them"

My Observations:

- Enriched my appreciation of works of arts
 - Interviews with artists, critics, experts
 - E.g. Pace Gallery Toura App
 - "Behind the scenes" videos/photos
- Possibility for customizations are massive
 - Kids
 - Foodies
 - History-buffs
 - Genealogy buffs

Media Theory Questions

- How is "mediated experience" different from "unmediated"?
- How do apps affect our 'sense of place'?
- Does 'augmented reality' change our sense of place?
- Creating *depth* of place
 - Space
 - Time
 - History, Literature, Culture
 - Organic and Interactive

My Project, Phase I


- Research (Desk and Field)
 - Tourism
 - Trends
 - Experiences and Desires (Interviews at Holyhead?)
 - Technology
 - Hardware
 - Software – Toura? Blah d Blah?
 - Content
 - Existing
 - New




Examples...

Related Projects

- Heather and Hillforts, Denbigh
 - <http://www.heatherandhillforts.co.uk/index.php/en/galleriesphotos-a-video/audio-tours1/penycloddiau-audio-trail>
 - Downloadable audio guides to walking tours
 - Hillfort reconstructions
 - Space to share/post videos
- Ramblers Cymru: eTrails, KESS at Swansea
 - Using mobile technology to develop virtual guidebooks for walkers
 - Routes plus
 - » Info on local history, food, accommodation
 - KESS at Swansea just starting, will use mobiles to track/research walkers' current movements



Relevant Apps



My Project, Phase 2


- Develop a prototype app for either:
 - An Anglesey attraction (Beaumaris Castle? Oriel Ynys Mon? Barclodiad y Gawres?)
 - All of Anglesey, Subset (Pilgrimage trail, Coastal walk)
- Include:
 - Mapping: walking, driving, public transit
 - Attractions, accommodation, restaurants
 - TPNW?
 - History, archaeology, architecture,
 - CADW, CyMAL, archwilio
 - “People’s History”
 - People’s collection
 - Advertising?

My Project, Phase 3

- Use the prototype app to conduct research
 - “Explicit” (pre- Vs post- questionnaires)
 - “Implicit” (what buttons do people click, etc)
- Examine:
 - Features and functions
 - Desirability
 - Ease of use
 - Actual rates of use
 - Advertising revenues?
 - Experience
 - How does this media augment/affect/interfere with educational processes, social interaction, “sense of place,” “distinct cultural experience”?


My Project, Phase 4

- Writing up, publishing findings
 - Media theory
 - Digital media academic journals
 - Mobile industry press
- Fine-tuning the prototype? Expansion?
 - IP



Budget

- KESS provides
 - £3,000 per year for equipment and consumables
 - £1,000 for travel/conference costs
 - £1,000 for skills development training
 - £200 for academic travel



Equipment

- 1 Android phone (for now)
 - To examine apps
 - Highest rated: HTC “Desire”
 - University price:
- 5 iPod touches
 - To test apps
 - University price:
- Total:



Other questions

- Project/Tech
 - Ipad?
 - On-site security during testing
 - More Androids?
- Pragmatics
 - Meetings?
 - Themes?
 - People?

Appendix 3: Hand-Held Heritage

HAND-HELD HERITAGE:

AN INTRODUCTION TO MOBILE APPS AND SOCIAL MEDIA FOR HERITAGE PROPRIETORS

A white paper

Susanne Skubik Intriligator

KESS Scholar, PhD researcher

School of Creative Studies and Media

Bangor University

1. Introduction

Back in 1978, when Douglas Adams penned the first installment of his global sensation *The Hitchhiker's Guide to the Universe*, the idea of the guide itself -- a hand-held electronic device that could store, search, and retrieve vast quantities of media related to its location -- was pure science fiction. (reference)

Now, however, thanks to huge strides in microchip technology, such a tourist guide is now (literally) within the grasp of ordinary consumers.

By the second quarter of 2010, 12.8 million people in the UK owned smartphones (reference), pocket computers onto which they may download "apps" (software applications) that utilize the phone's GPS

system. These apps can not only locate the user upon relevant maps but also display "near me" tourist information (e.g., restaurants, accommodation, public transit) and cultural information (e.g., local customs, architecture, history, current events) in the form of text, links, photos, and video.

Though still in its infancy, the apps industry is growing at a phenomenal rate. On the first weekend after Apple opened its App Store in 2008, users downloaded 10 million apps. In January 2011, two and a half years later, the Apple App Store passed the 10 billion apps mark. The research firm Gartner predicts that in 2011 alone, smartphone owners (across all platforms) will download 17.7 billion apps, with revenues totaling £9.2 billion.(reference)

1.1. Key Questions

More than just popular, mobile apps are powerful. While the first travel apps focused on providing information – flight times, traffic warnings, accommodation, eateries – more recently, as more cultural institutions have ventured into this space, more creative apps have appeared, including augmented reality features, social media functionality, 3-D reconstructions, and reenactments on video. These brave new apps seek not only to replace traditional paper travel guides but also to educate and to



entertain. Portable and often customizable, such apps can enhance and even transform a visitor's "sense of place" by adding new historical depth, social breadth, and even spirituality to the experience.

Combined with the ideas of Web 2.0, especially the drive toward social media, the art and science of mobile apps for heritage tourism holds great potential. How will your institution approach this space? Which platforms, features, and functions are best suited to your audience and your institutional goals?

This white paper aims to guide heritage site proprietors in this new space. First we examine the trend's contexts: heritage tourism and Web 2.0. Then we look at Heritage 2.0 on the web and present several case studies of museum and heritage mobile apps. Finally, we present a beginning guide to the development of a mobile strategy for heritage institutions.

2. Context

2.1 Heritage Tourism

A 2010 study commissioned by the Heritage Lottery Fund and VisitBritain tallied for the first time the economic value of the heritage sector to the UK economy. It found that heritage tourism contributes £20.6 billion per year to the economy and supports 195,000 full-time jobs. Heritage tourism constitutes the fifth largest sector in the UK economy, larger than the advertising, car, or film industries.(reference) Moreover, even during the current recession, the sector is growing. For example, in 2009 visits to English Heritage properties rose 17%..(reference) Clearly, preserving and innovating heritage tourism products may prove vital to the UK economic recovery.

"VisitBritain's research in 35 countries around the world reveals that our core strengths as a visitor destination are our heritage, history, pageantry and culture," commented Sandie Dawe, chief executive of VisitBritain. "Crucially, however, it is our living heritage that most inspires our visitors; the past brought to life, interpreted and explained. People tell us that they especially value our accessible heritage – our museums and galleries, castles and stately homes, our ruins and industrial sites, our palaces and cathedrals – because it is not presented 'in aspic' but includes living, breathing, vibrant places that belong as much in the present as in the past." (reference) But in terms of media, exactly how do heritage sites "belong" in the present? How can they best communicate their relevance in a fast - changing culture? How can new media transmit old meanings? How do interpretation officers "speak" (and listen) to youth and young adult audiences, the so-called digital natives?

2.1.1 Goals of Heritage and Cultural Tourism

Poria, Reichel and Biran (2006) posited that cultural/heritage tourism takes place in spaces where historical artifacts are displayed or at locations that have been defined as heritage spaces. Reference Silberg (1995) defines heritage tourism as "visits by persons from outside the host community motivated wholly or in part by interest in the historical, artistic, scientific or lifestyle/heritage offerings for a community, region, group or institution". Reference

In the past, scholars have presented various theoretical motivations for heritage and cultural tourism. In an influential 1975 essay, the geographer David Lowenthal posited that most heritage tourism results from nostalgia; old structures represent continuity and stability, which is a source of comfort to modern viewers. Reference Tourists visit international heritage sites because of an appreciation for universal civilization and a desire for human unity. Reference On the national level, historical monuments often represent durable national ideals, and national pride can be an important stimulus for preserving the built environment in Western societies

(Lowenthal 1975). At local levels, communities need familiar landmarks so that they can remain in touch with their own collective past in a rapidly changing world. In 2002, anthropologist Genevieve Bell conceived a different theory of museum participation, based on the idea of a three-part museum ecology. Visitors value cultural and heritage spaces that provide: liminality, sociality, and engagement. First, “liminality” is the sense of an experience set apart from everyday life; museums should offer opportunities for contemplation, reflection, and spirituality. Second, “sociality” refers to the fact that visitors most often experience museums in family or school groups; the visit is a social experience, transacted in a public place, set to serve a larger community. Third, “engagement” refers to the strength of the educational (or sometimes entertaining) interaction. (reference)

2.2 Web 2.0

2.2.1 Definitions

In common parlance the term ‘Web 2.0’ has come to refer to ‘second generation’ websites, ones that offer, in addition to static information pages, participatory features such as photo-sharing, social networking and/or blogs with comment options. A narrow interpretation might lead some to view such developments as trendy -- and therefore ephemeral – especially within the historically conservative heritage sector, where they have often been rejected outright, for fear that opening up the heritage conversation via social media could also open the door to abusive posts or the ‘dumbing down’ of content.

But such a narrow reading of 2.0 concepts misses the point and misses important opportunities. When media commentator Tim O’Reilly (among others) first coined the term in 2005, he was describing an already in-process cultural paradigm shift among internet users – from passive to active, from consumer to prosumer, from individual surfing to crowd-sourcing and the network effort.

Moreover, O’Reilly envisioned a shift from websites composed primarily of human-readable pages (full of data that must be compiled by humans) to sites of machine-readable pages, which facilitate high-speed search and data mashups. (reference) “Web 2.0 is the network as platform, spanning all connected devices,” O’Reilly wrote in October 2005.⁷

Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an “architecture of participation,” and going beyond the page metaphor of Web 1.0 to deliver rich user experiences. (reference)

Perhaps the most famous example of a thoroughly 2.0 site, “a continually-updated service that gets better the more people use it,” is Wikipedia, a huge reference that users improve hourly. Facebook is another well known ‘architecture of participation.’

2.2.2 Social media, review aggregation

More relevant perhaps to the heritage tourism sector is the phenomenal growth of “tourism 2.0” sites such as TripAdvisor. If anyone should doubt that user-generated content is the future, let him or her look at TripAdvisor’s numbers. According to its website, “TripAdvisor-branded sites alone make up the largest travel community in the world, with more than 40 million unique monthly visitors, 20 million members, and over 45 million reviews and opinions.”⁹ Still many heritage sites don’t appear on

TripAdvisor, in the local “things to do” listings; at the very least site owners should address this absence and encourage visitors to add reviews online.

2.2.3 Mobile apps for Social Media

Many companies operate in the social mobile domain. Foursquare was one of the first mobile-only social media networks. Its 8 million users worldwide check-in via app or SMS text, telling friends where they are and seeing other users nearby. (reference) The app also offers local information, discounts, and incentives with businesses. For example, the Foursquare user who frequents a pub most often becomes ‘mayor,’ of that location, qualifying for loyalty rewards.

Facebook Places offers a similar functionality, allowing Facebook users to “check-in” at locations, so that friends can share geolocation data. In late 2010, Facebook introduced Deals, an add-on to Places, which displays nearby discounts and incentives after check-in. It’s been marketed as a digital loyalty card programme.

According to the research firm comScore, 16.7 million US mobile subscribers used location-based check-in services during March 2011 (7.1 percent of the US population). Nearly 60 percent of these check-in service users were 18 to 34 years old.

(reference)

In the UK, uptake is accelerating. Another comScore report claimed that in March 2010, 4.4 million people accessed social media sites via their mobile phones every day. By March 2011, that number had increased 80%, to 7.9 million accessing every day, or 14.7

accessing it at least once a month. (reference)

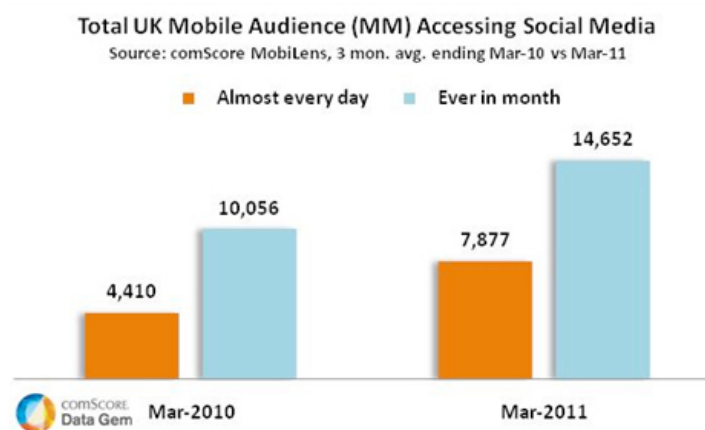
As we’ll see below, most of the newer apps for the museum and heritage sector encompass this trend by including social media functionality, in the form of links to Facebook, Twitter, and Foursquare. Few, however, go beyond chat to try to create meaningful social interaction with reference to the heritage experience, either among fellow visitors within the heritage site or among family or community groups.

3. Heritage 2.0

3.1 Digital Archives on the Web

In the heritage/history sector, several new projects utilize Web 2.0 concepts to create and build searchable online databases. For example, the September 11 Digital Archive solicits digital items -- oral histories, emails, and images – related to the events of that day, in order to preserve its history. (reference) As of May 2011, it contained 150,000 digital items.

In the Netherlands, Digitaal Monument Joodse Gemeenschap collects information, stories, and images related to the Jewish community there before and during World War II. Along with general information, the site contains a page for each Jewish person living in the Netherlands in 1941, with basic information about the person’s life and family, to which the public is invited to add. Historical addresses are included, facilitating local searches and “allowing users to take a virtual walk through streets and towns,” (reference) learning the personal fates of thousands who perished.



Among such public databases, the People’s Collection of Wales stands out, for the sheer scope of its ambition. Launched in August 2010, the People’s Collection invites users (individuals as well as libraries, museums, and institutions) to upload images, documents, maps, videos, family trees, and stories related to places in Wales. In essence, it seeks to create an online history of an entire nation. As of May 2011, it contained nearly 29,000 digital items. (reference)

In addition to the items, the People’s Collection aims to reuse, remix and mashup the data contributed. For example, it encourages users to gather related items into Collections, which the site administrators then arrange into larger theme-driven Exhibitions. Users can also search items by theme or location, creating their own collections or even location-based trails. Such trails can then be viewed via Trails Cymru, the People’s Collection’s mobile app. (reference) As of May 2011, the app offered a few “test” walking trails in South Wales, developed by the group Ramblers Cymru, and some others of limited, academic interest. The app/trail-making interface remains rather difficult to use for the less technically minded, and the website has yet to develop a tourist-friendly user interface. This is perhaps part of their longer-term vision.

Such public database projects hold great potential for the heritage sector, however. Over time, as more users contribute, these sites can only grow in capacity and relevance. By participating in such projects (using them to build and store items, collections, and trails) heritage site professionals earn notice for their own projects and draw visitors. Moreover, if they connect their own websites to the databases via hyperlinks, they can leverage the power of the larger sites to their own advantage.

3.2 Social Media and Heritage

In her 2010 book *The Participatory Museum*, Nina Simon explores participatory trends in the culture and heritage sectors, both online and in person. She writes:

The growth of social Web technologies in the mid-2000s transformed participation from something limited and infrequent to something possible anytime, for anyone, anywhere.

We entered what MIT researcher Henry Jenkins calls a ‘convergence culture’ in which regular people—not just artists or academics—appropriate cultural artifacts for their own derivative works and discussions. (reference)

Web 2.0 has transformed not only the web but, via its vast influence, other cultural institutions as well. More and more, formerly top-down, authoritative content providers have seen the benefits of opening up two-way channels of participation, both on their websites and within their physical exhibition spaces. For example they create opportunities for guests to help curate collections via tagging items (both on the web and physically, in house), or collecting items into thematic groupings. Simon encourages curators to think about participation outside the boxes of “comment” or even content creation.

For example, Simon writes, only 0.16% of visitors to YouTube will ever post a video there (reference). But the site works because so many other users curate it via lower-level participation. For example, every time a user watches a video, that user has helped to cull the collection, because every “watch” helps the video climb up the rankings. Users also add comments and ratings, which are given prime space on the site’s home page. Although the vast majority of users will never post, their “curation by participation” functions to push the most entertaining videos to the foreground.

Simon’s book showcases museums that employ similarly innovative approaches to participation, both online and in-house, including voting, tagging, commenting on, and collecting items. (reference)

Arguably the world’s largest museum, the Smithsonian takes this ethos of participation perhaps more seriously than any other. In July 2009, when it began an institution-wide process to re-envision its digital media strategy, the museum took a landmark step: it conducted the entire process in real time on a public-facing wiki. All discussion, debate, and policy formation happened in public, open to scrutiny and to input by all staff and any members of the public who registered to participate.

3.3 Mobile Apps and Tourism

3.3.1 App versions of paper guides

Lonely Planet

Add text here

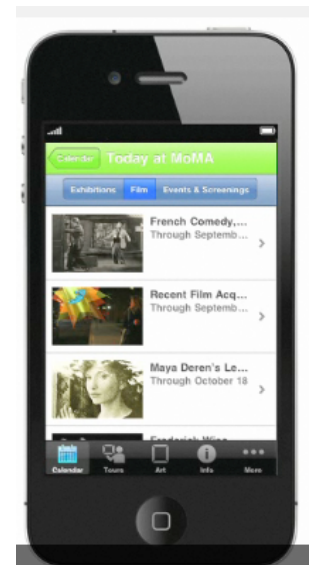
3.3.2 Bespoke Museum Apps

3.3.2.1 Museum Apps as Tour Guides

It has been about two years since the very first bespoke museum and heritage mobile apps appeared.

The first of these apps aimed simply to replace standard paper museum guides, providing helpful on-site information about facilities and augmenting “wall card” blurbs about displays with further information about artists, trends, and objects, in the form of images, audio and video. For example, in June 2009, the National Gallery in London introduced “Love Art,” a mobile app for iPhones, which displayed images of hundreds of artworks, plus audio commentaries on many. At the time, the app was at the cutting edge, but many more have followed, utilizing new features and facilities as they have become available.

Two years later, a good example of a fully featured museum app is that produced in-house by MoMA (New York’s Museum of Modern Art), for both iPhone and Android platforms. It features complete visitor information (hours, admission, etc.), a updated calendar of events (“Today at MoMA”), and five distinct museum tours, such as Special Exhibitions, Modern Voices, Modern Kids, MoMA Teen, and Audio and Video Descriptions for visitors with disabilities. Users can also create their own tours by browsing items laid out by floor and cross-referenced with the app’s Art Index, which includes all of the museum’s 32,000 works. Other innovative features include: a database of art terms defined, an option to send your own photos as museum postcards through the phone, plus “MoMA tracks,” which integrates with the user’s mobile music library to allow him or her to create a musical track for touring.



MoMA app photo

Also in New York, the American Museum of Natural History has created another state-of-the-art app. “Explorer” not only catalogs the museum’s large collection, it offers sat-nav-type directions to users, as in “Turn right out of the elevator, walk toward the giant whale.”

“One of the problems we wanted to solve was how difficult it is to navigate the museum,” Linda Perry-Lube, the museum’s chief digital officer, told the New York Times. “We have four city blocks of exhibition space, 26 buildings, 46 halls.” To tackle the huge indoor spaces, which often have poor

mobile signals, the team chose to create an app that accesses the museum's Wi-Fi network instead and uses triangulation to determine a user's location. Perry-Lube called it the "first indoor-location awareness technology at this scale." footnote

3.3.2.2 Museum Apps as E-Books

Some other world-class museums, however, are choosing an opposite approach, creating apps intended more for home use than for navigation, less the "app as compass," more the "app as a coffee table book." For example, on British Library's web page promoting its "Treasures" app, released 10 January 2011, no mention whatever is made of the app's usage within the library: no mapping, no information on facilities. Instead the focus is on providing images of important documents, globally, via the mobile format. The press release states: [to be supplied]

Through the app users will experience an up close and personal experience with some of the Library's most unique items, such as the first edition of Alice's Adventures in Wonderland, the world's oldest bible Codex Sinaiticus, Nelson's Battle Plan, written before his victory at Trafalgar, Galileo's letters and Leonardo Da Vinci's notebooks. Expert commentary is provided on many of the items and users can watch, for example, videos of explorer Ben Fogle talking about Scott's Diary and Linguist David Crystal discussing the 1,000 year old poem Beowulf. footnote

The app can be updated and does include some information related to a current exhibition, but again the focus is less on providing tourism information and more on showcasing multimedia documents; the "Evolving English" section contains a letter from King Henry V and audio examples of Jamaican patois and Yorkshire accents. footnote

This "coffee-table-book" approach is typical of Toura, the New York- and London-based software developer behind "Treasurers" and many other apps for world-class museums. Toura's CEO, Aaron Radin, explains: "With Toura technology enabling the Treasures app, the British Library's impressive body of knowledge will have a global reach - opening up the doors for unprecedented learning and discovery through dynamic video, images, text and audio features across all mobile platforms." (reference)

Toura recently created a similarly non-touristic app for the Imperial War Museum in London. A new exhibition at the museum's Lord Ashcroft Gallery showcases the world's largest collection of Victoria Cross and George Cross medals (which reward acts of extreme courage). With the Toura proprietary platform, staff created "Extraordinary Heroes," an app that includes narratives about 28 medal winners. For example, it tells the stories of both Lance Corporal Matthew Croucher, who threw himself on a grenade to protect his comrades in Afghanistan, and Odette Sansom, an undercover agent who endured torture during World War II. (reference)

3.3.3 Bespoke Heritage Apps

3.3.3.1 National Trust

Mobile apps are especially well suited to orienting tourists around dispersed heritage sites, those that are spread over a geographical area. In the UK, the larger national heritage operators made some of the earliest ventures into the mobile domain.



In February and March 2010, the National Trust released an app in both iPhone and Android platforms, to mostly positive reviews. It's a straightforward tourism-information app, listing the trust's 400 places to visit, with a page for each containing images and some text, searchable in three ways: alphabetical listing, placed on a map, or "local to me."

One early reviewer wrote: "The app is simple to use, and works best when you use the iPhone's GPS function to find the nearest National Trust sites to



your current location. The information on the sites is detailed enough to help you decide whether to visit or not. Opening times and prices are shown, as well as facilities, cafes, disabled access etc." (reference) The trust's website refers to the app as the "handbook in your pocket" -- which aptly reflects its goal of replicating the group's big paper handbook in mobile format -- with added GPS and Google Maps functionality, but little other multimedia content. Beyond helping a tourist select a site, the app does not function to further enhance a visit; it contains no audio or video extra, no 3-D site reconstructions, no larger commentary or thematic connections between sites. Perhaps, given funding constraints, individual National Trust properties will in time create their own apps, featuring specific digital content to enhance visits.

3.3.3.2. English Heritage

A year later, in April 2011, English Heritage debuted its app for iPhone and Android; while following a similar approach to National Trust, it incorporates a year's worth of media and tech advancements.

"Days Out" features a central list, with a page for each site, plus "near me" searchability. In addition, it offers complete events listings, and compound searches by region and themes (e.g., castles) and special needs (e.g., children, pets, wheelchair access). For example, one could cross-search for both "family friendly" and "West Midlands," or "gardens" and "Humberside." In addition, the app allow for personalization, as users can create lists of favourites. And it incorporates social media elements: users can 'check in' on Foursquare and share photos and 'favourites' via Facebook and Twitter.

3.3.3.3 Freedom Trail

Apps that focus on smaller, more related areas can offer more thematic connections, a richer tourist experience and an enhanced 'sense of place.'

A good example of this school of thought is New Wave Industries' 2010 app "Boston's Freedom Trail" app (for both iPhone and Android). A tourism guide, the app leads users along the city's 2.5-mile walking path of 16 sites related to the Revolutionary War. Along with a "map view" with integrated GPS (which locates the user on the map), the app offers pages on each of the 16 sites (and many sub-pages on



individual features of the sites), each with several hi-resolution images and up to three minutes of audio information. Some of the pages also feature HD video clips of war re-enactments.

User-friendly and inexpensive, the app ably replaces both guidebooks and live tours.

“Nobody should go to Boston without it,” app user Randy Martin wrote on the app’s Facebook page.

“Far more info for \$3 than we got paying \$50 for the guided tour which we couldn't even hear the tour guide 1/2 the time.” (reference)

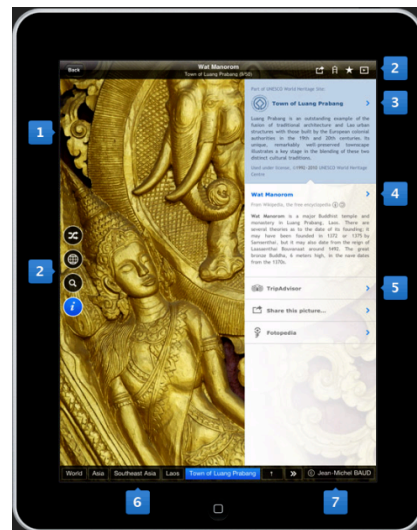


Beyond simply informing and orienting, apps like these can serve to enhance a tourist’s sense of place. One primary impetus to travel is to experience a place related to a historic person of interest. If, for example, a traveller has come to a historic battlefield in order to stand in the footsteps of a famous general or behold the same vista he did, apps hold the potential to deepen the locative experience. If, when actually standing in the place, the user can access a video reenactment or, via augmented reality, historic photos, drawings, or maps, it adds a dimension of time to the experience of space. (See Augmented Reality: Photos below.)

3.3.3.4 Fredericksburg Battle App

Further south, the state of Virginia and the Civil War Trust have debuted a series of apps that aim for this locative-enhancement / “history comes alive” ideal. The first, called the Fredericksburg Battle App, offers four different GPS-enabled tours around the same large battlefield area. Along the way, users stop at various locations, each with a text description and photos, plus video commentary from historians and audiotaped readings from the written accounts of combatants and witnesses.

“This new technology will allow visitors to explore the Fredericksburg Battlefield in greater depth than ever before,” said Russ Smith, Superintendent of the Fredericksburg and Spotsylvania National Military Park. “The multimedia platform provides a wealth of information along with the convenience of personalizing the experience to your own interests, while still benefitting from the expertise of top historians. (reference)



3.3.4 Heritage Apps as E-books

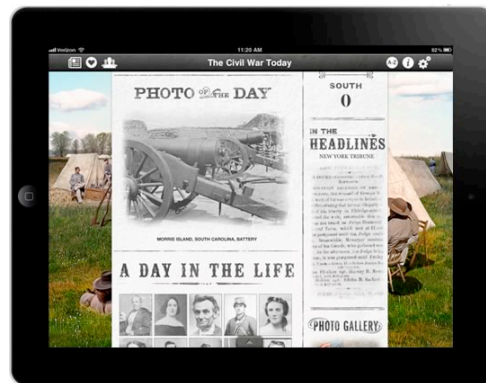
As with the museum apps mentioned above, there is also a concurrent trend here toward heritage apps that aren’t meant for actual travel, so-called “coffee-table” apps for “armchair

tourists.” For example, Fotopedia, an open online community of 30,000 photographers, released its free “Paris” app for iPhone and iPad. “Dreaming of Paris?” begins the blurb in the iTunes App Store, “Now you can discover and explore the City of Light, as it’s never been seen – and without leaving your home.” (reference)

Though the app does contain maps and navigation aids, the real focus is its gallery of 4,000 hi-quality images, virtual trips organised around categories like “fashion” and “people”, and Trip Builder feature, which allows users to collect favourites and build their own virtual tours. It also includes a “shake to shuffle” feature that, when the user shakes the device, randomly selects a ‘surprise’ image.

Fotopedia also published an earlier app, the mammoth “World Heritage”, now lauded by Apple as one of its 50 “Hall of Fame” apps. Incorporating 20,000 photos and text from UNESCO and Wikipedia, the app allows users to “visit” all 900 UNESCO World Heritage sites, on iPhones and iPads. Like an enormous digital atlas, the app is meant both to educate and to inspire imaginative travel, with additional features such as interactive mapping, social media sharing, slideshows, shuffle-by-shake, and travel planning links with TripAdvisor. Free to download, it’s only truly useful within a Wi-Fi area, where users needn’t pay data charges to access the remotely stored images. (reference)

In the US, television company The History Channel has produced a singular experience in “The Civil War Today,” only for the iPad -- an app which orients users in time rather than in space. To commemorate the 150th anniversary of the war, the app presents “daily updates” that re-create the war in real time, over four years, from 12 April 2011 to 26 April 2015. Every day, the app user gets new versions of these features: “This Day in Civil War History,” “In the Headlines” (images of historic newspaper pages), “Day in the Life” (excerpts from the diaries and letters of 15 people who lived through the war). Also included are hi-resolution photos, battlefield maps, a “casualty counter,” a daily quiz, and a “game center integration” that rewards participation.



While innovative, the app has also drawn criticism, accused of focusing more on entertainment than history. Virginia Heffernan, writing for the Opinionator, the online commentary wing of the New York Times, called it *too* immersive. “With this app, I keep remembering why people don’t, actually, want to “live” history — especially when history is the holocaust of the slave trade, the tragedy of American slavery and the horrors of the miserable holy war waged to abolish it. That’s why most of us opt to *study* history, as un-immersive and old-fashioned as that sounds.” (reference)

3.3.5 Map-focused apps

Developed collaboratively between Edinburgh College of Art and the University of Edinburgh, “Walking Through Time” uses GPS to locate users on modern maps, then offers them a choice of several historical maps (dating back to 1740) that can be layered on top, with an adjustable opacity meter, so users can see the past and the

present simultaneously. The app also includes several guided tours with information points. According to its makers, it “allows users to walk streets that no longer exist and stand in places that are not what they used to be,” and the experience transforms people’s perceptions of cities. (reference)

Dr. Chris Speed, one of the app’s developers and a teacher of digital media at the Edinburgh School of Architecture explained: “People are getting used to seeing up-to-date satellite maps on their phones of where they are standing and moving, but they can only imagine what a place looked like in the past. Our app simply puts old maps under your feet and lets you walk streets that may not exist anymore. Visitors to cities like Edinburgh or London are often very interested in the history of a place, so it seemed a good idea to offer them a satnav for the past as well as for the present.” (reference)

3.3.6 Augmented Reality (AR)

3.3.6.1 AR for Tourist Info

Another tool with great potential for location-experience-enhancement is so-called Augmented Reality. Like that used in “near me” searching, the software uses the phone’s GPS to locate it, it then uses the in-built compass to read the phone’s physical orientation in space. It then “layers” images (e.g., text boxes containing relevant “near me” information) onto the image generated by the phone’s camera.



The technology holds the promise of a more intuitive interface with simple tourism information, like visual “near me” searches.

While there is great buzz about AR apps, as yet very few completed ones have been released to the app marketplaces. For example, a developer called Waalkz has developed several AR walking tours for Singapore, free for the iPhone. The city of Salzburg has created an AR tourism app using the Wikitude platform; it created 1,750 tags about its attractions and landmarks, which now float on users’ screens as they explore the city. (reference)

Another company, ARPro has released AR programs that guide users to subway stations in several world cities.

AR is also proving trendy with a few major retailers, who are interested in driving traffic to their outlets. For example, Starbucks has used Wikitude’s platform to create an app that visually displays its locations all



over San Francisco.

Wikitude’s website also

promises an AR app for Walmart upcoming.

3.3.6.2 Augmented Reality: Historic Photos

In May 2010, the Museum of London released its landmark AR app “StreetMuseum.” It uses GPS to locate the user, then, reading the phone’s orientation in space, overlays its current screen with photos taken on the spot from the museum’s vast collection. Such technology allows users to apprehend visually a place’s history, in an instant. The human history of an ordinary place, exposed visually, grants the user a visual window into the past, adding the dimension of time to a sense of place.

In the US the nonprofit website phillyhistory.org is using an open platform called Layar to create a similar photo AR app. At the moment, the Philadelphia app contains 500 geo-tagged historical images in an AR mobile format. As of May 2011, however, the app was not available via the apps store or marketplace. It only works “within the Layar browser.” So a user must first download the free browser. Then the Philly app may be viewed through it.

3.3.6.3 AR for architecture, art, music, and protest

Another ambitious AR project is UAR, the Urban Augmented Reality app by the Netherlands Architectural Institute. It was built with Layar, an open platform AR software that is free to download and supported by a developer community. With grant support and tech help, the institute created a tour of architectural Rotterdam, both real and imagined. The app uses AR to superimpose upon current landscapes historic photos of buildings long since demolished, or plans and models for structures that were never erected (or at least not yet). The group plans to unveil a similar tour for Amsterdam this year, with Utrecht and The Hague to follow. The apps are free and allow users to add content.

Because it is open-platform, free, and supported by a cooperative development community, Layar has also attracted creative individuals to harness the power of AR. John Goto, an artist and professor at Derby University has developed two of the five apps Layar “showcases” on its website. (As of May 21, 2011, there were 2,255 total Layar apps listed there.) Goto created “West End Blues,” a mini jazz tour of London. In front of old jazz venues, a user’s camera displays superimposed images of musicians such as Louis Armstrong and Coleman Hawkins – and plays a sound sample of their music.

Goto also created “The Invisible Artist,” perhaps one of the first-ever protest apps. It uses Layar to present an AR tour of London art galleries, where a superimposed tour guide character (who has no face) provides subversive commentary “satirizing the bureaucracy and lack of diversity of London’s contemporary art scene.” footnote Inside the galleries, the invisible artist displays, via AR, new pieces by other “invisible artists.”

Also in Layar, a publisher called 4Gentlemen has created a similarly subversive protest app called Tianamen SquARed. As a memorial to the protests by Chinese students in 1989, the app uses AR to re-install two seminal images from that time: “tank man” and the Goddess of Liberty. Today, any visitor to Beijing (with the app and a smartphone) can stand in Tianamen Square and see an image of the anonymous man who faced down a line of tanks. In nearby East Chang’an Street, the app recreates the iconic student-sculpted goddess in the exact spot where she once stood.

3.3.7 Heritage Apps: Games

3.3.7.1 Chester’s “Revealing the Rows”

In late 2010, Cheshire West and Chester Council released a landmark app, becoming one of the first UK county councils to move into the domain. “Revealing the Rows,” developed by the interpretation firm Imagemakers, doesn’t seek to provide exhaustive

information or replace guide books and live tours. According the press release it's simply an add-on, an extra bit of fun for guests that helps them engage with the city's history.

Imagemakers used a game format called "I Spy" that it developed for two outdoor hiking apps, to encourage children to discover wildlife on outings. For Chester, it replaced flora and fauna with architectural features that call up historical moments. For example, there's the quatrail motif in the window of the Old Customs House, which was built to collect tariffs when the city was a bustling port. It's a Christian symbol, popular in the Middle Ages and revived during the 19th century.

"Revealing the Rows" invites families or small groups to engage in a race, to spot these architectural features in the city's main shopping streets. The first player to spot Chester's motto engraved into a building on Shoemakers' Row earns 2 points.

Whoever correctly answers a followup trivia question earns another point. There are 30 items to spot. Intentionally designed to promote interactions between family and friends groups (or even between visitors and Chester business-owners), this app is one of the few current offerings that acknowledges and supports the inherently social aspect of heritage tourism.

Unfortunately the app doesn't contain any multimedia extras. There are no audio clips of the Town Crier, for example. No video tours of the town or videos of historic reenactments. As a whole, the app doesn't serve to entice additional visitors to Chester, simply to engage those already there.

3.3.7.2 Gallery Tag!

At the Brooklyn Museum in New York, smartphone users can play "Gallery Tag!" a simple game users download on-site. For example, choose a one-word "tag" from a list (e.g., "nude" or "beard,") or create your own, then find an item in the gallery that matches that tag. Enter the item's accession number into your phone, and the item is now electronically tagged with that descriptor within the museum's database. Players earn points and prizes. Curators hope the game encourages engagement with artefacts. Eventually, such tagging may be used to organize items, facilitate searches, and curate further exhibitions across collections. (reference)

3.3.7.3 SCVNGR

SCVNGR (pronounced "scavenger") is a Boston-based company that aims to "add a game layer on top of the world." Via their mobiles, users "check-in" at shops, restaurants, workplaces, and create and/or complete challenges such as: take of a photo of yourself here, make a sculpture from tin foil, solve a riddle. Participating locations can add challenges or rewards like discounts or incentives.

As of May 22, 2011, SCVNGR had partnered with over 1200 enterprise clients, mostly in the US, such as Princeton University, the US Navy, and Dunkin Donuts. (The number of game players passed the 1-million mark in January 2011.) Last summer, working with the Smithsonian Institution, SCVNGR co-created a scavenger hunt across nine museums on the National Mall in Washington DC. Players first downloaded the game instructions on their Android or iPhone units, then visited each museum, collecting clues, solving riddles, writing haikus about the objects, and taking photos of themselves in various places. They could choose to collect points over the course of a month, competing against others on the Leader Board, or choose to play in a few intensive sessions. On the first Saturday of the challenge, for example, players gathered at one museum at 10 am. They were given 4 hours to complete the hunt, with judges scoring haikus and photos at end. The highest scorer of the day won an iPad.

Thom F., the first winner, wrote on his blog: “I had an amazing time in the trek. I got to experience new museums, such as the African Art and the Sackler, and revisit ones I hadn’t been to since they opened: American Indian. I have recommended this trek to all my friends (not ever just for the iPads that are still available, but for the sheer fun I had exploring something that I normally just take for granted).” (reference)

3.3.8 Apps for Social Learning in the Heritage Context

Many of these apps give a nod to the burgeoning social media mega-trend by allowing users to check-in, chat or share photos via links to Facebook or Flickr. Few go beyond these functions to try to create meaningful social interactions within the museum, be it between friends or family members visiting together or strangers sharing public space.

One example of an intentionally social app is an experimental project developed collaboratively by students and instructors at Wellesley College in the US. They created a mobile app for iPhone called “ARTeMuse,” which guides users through a gallery at the college art museum. Informed by educational theory, the app was designed for naïve art audiences, to help foster deeper interactions with the art, and it used the social media function to encourage first-time visitors to formulate and express their own opinions about the pieces.

At each artwork, users scan a QR code on the wall card that brings up a “look” prompt with instructions such as “walk around the sculpture to view it from multiple angles.” The prompt is followed by a series of questions intended to inspire users to consider the artist’s intent, style, or technique. Also included is a glossary of relevant art terms. Via a Facebook API, the app encourages users to share their insights and ‘favourites’ with friends. Users who answer questions or complete short tasks are rewarded within the app with points in the form of images of historic coins in the museum’s collection. (reference)

Developed within an academic context, “ARTeMuse” is one of the first apps to be studied and evaluated via qualitative interviews and quantitative questionnaires. Researchers demonstrated that the app dramatically increased ‘dwell time.’ “We found that, on average, participants spent about 39 seconds with a work of art when viewing the art without the application, and about 3 minutes and 15 seconds viewing art while using the application.” (reference) App users also found it significantly easier to form an opinion about a piece of art, and they reported that they felt more comfortable in the gallery than non-app-users.

4. Issues to Consider in Designing a Mobile Strategy

4.1 Your Mission(s)

According to the museum experts, any discussion of a mobile strategy for heritage and culture must begin with the institution’s mission. Revisit your group’s mission statement, update it if necessary, and consider how new social and mobile media can best serve your goals.

4.2 Target Audience(s): their needs and appropriate media

Many heritage organizations are somewhat familiar with relevant demographics and market segmentation. Different groups of people access institutions in different ways, and they require services that match their needs. Planners need to create media projects on the platforms that best match their users. Focus groups and targeted questionnaires can help organizations discover good ‘fits.’ Create a survey that asks groups of visitors which technologies they currently use and for what purpose. For

example, certain groups may prefer printed interpretation, offered on-site, while others would elect to download it at home before a visit. Interpretation via mobile app may be best suited for younger audiences, who would want functionalities and content different to older audiences.

Second, ask your visitors more about what they want to know. For example, hand members of a focus group a printed map of your gallery or site. Invite them to write down on the map questions that occur to them in the various locations, such as “How do you get to the café from here?” to “Why are these two pieces next to each other?” to “Why did the artist use so much blue?” Queries such as these show curators not only the “holes” in provided interpretation but also how to begin to understand how people experience the space as space, how to “think mobile.”

4.3 Goals for the project

4.3.1 Information and navigation, vs. “at-home viewing”

4.3.2 Education/enhancement of experience: place, people, events

4.3.3 Social interaction

4.3.4 Personal contribution, connection

4.3.5 Interaction with items: tagging, ranking, evaluating

4.3.6 Gaming

4.3 Platforms

4.5.1 Native vs. Web app

4.5.2 Android, iPhone, Blackberry, Windows 7

4.5.3 In-house vs. Out

References

Appendix 4: Smartphones & Tourism Research



Ysgoloriaethau Sgiliau Economi Gwybodaeth
Knowledge Economy Skills Scholarships



Date _____ Survey number _____

Time _____ email address _____

Bangor University School of Creative Studies and Media
Smartphones & Tourism Research
Susanne Skubik Intriligator, PhD student

Dear Chester Visitor,

Welcome to this historic city. I'm conducting research on how tourists use smartphone apps. If you'll take a moment to share your opinions and experience, you'll receive a free gift – and a chance to win £100.

Please:

- 1. Complete Questionnaire Part A near the start of your visit*
- 2. Explore Chester*
- 3. Return to the Tourism Information Centre and complete Part B*
- 4. Receive a gift.*

Thank you for your time and consideration.

*Sincerely,
[signature]*

Questionnaire Part A

1. Gender

Male Female

2. Age

<16 16-24 25-44 45-64 65+

3. How far did you travel to get to Chester today?

< 3 miles 3 -10 miles 10-20 miles more than 20 miles

4. Who has come with you today?

Partner Children Other family members Friends Other

5. How often do you come to Chester?

Daily 2 or 3 times a week Once a week Once a month Once a year
This is my first visit to Chester

6. Why have you come today? (Tick all that apply.)

To shop To accompany a shopper To have a meal
 To see historic/cultural sites Relaxation / "a day out"
 Other : _____

7. How long do you expect to stay in Chester?

Less than an hour 1-3 hours 4-6 hours 6-8hours
 Overnight

8. How much money do you expect to spend in Chester today?

Less than £10 £10-50 £50-100 more than £100

7. My phone is a/an

iPhone Android Nokia Blackberry Windows Other

8. Tell us your impressions of Chester.

For each set of opposites below, tick the box that best represents your views of Chester on that dimension.

Chester is . . .

(neutral)

welcoming						unwelcoming
warm						cold
interesting						dull
fun						boring
well-signposted						confusing
accessible						inaccessible
affordable						expensive
unique						similar to other cities
friendly						unfriendly
tidy						untidy
modern						traditional

Thank you. Enjoy your time in the city.

Remember: At the end of your visit, please return here to fill in a brief second questionnaire. You'll then collect your free prize and get your name entered into the drawing for a chance to win £100.

For all iPhone/smartphone users: this tourist office offers free WiFi, feel free to use it now. iPhone owners: Please download the free app "**Revealing the Rows**" to enhance your visit to Chester. (Go to App Store and search "Chester" to find it.)

If you have another kind of smartphone: You may want to consider using Google maps and other tourism information apps to enhance your visit to Chester.

Survey number _____

email address _____

Time now _____

Questionnaire Part B

I used the following smartphone apps during my visit to Chester:

- Google's Near Me Now
- iPhone app "Revealing the Rows"
- English Heritage "Days Out"
- Loc8or
- Local Eats
- Lonely Planet Trippy
- Orange Maps
- Ovi Locago
- Ovi Around Me
- RAC Traffic Plus
- Travel and Traffic alert UK
- Travel Compass
- TripAdvisor
- UK Traffic
- UK Travel Guide
- Wikitude World Browser

Other Please state: _____

Post-Visit Questions

1. *I feel more positively now about the city of Chester.*

yes no

2. *I spent more time in Chester than I had anticipated.*

yes no

3. *I spent more money in Chester than I had anticipated.*

yes no

4. *Please re-visit the statements below. For each set of opposites, tick the box that corresponds to your impression.*

Chester is . . .

neutral

<i>welcoming</i>						<i>unwelcoming</i>
<i>warm</i>						<i>cold</i>
<i>interesting</i>						<i>dull</i>
<i>fun</i>						<i>boring</i>
<i>well-</i>						<i>confusing</i>

<i>signposted</i>						
<i>accessible</i>						<i>inaccessible</i>
<i>affordable</i>						<i>expensive</i>
<i>unique</i>						<i>similar to other cities</i>
<i>friendly</i>						<i>unfriendly</i>
<i>tidy</i>						<i>untidy</i>
<i>modern</i>						<i>apps</i>

5. For users of the iPhone app “Revealing the Rows”: Please rate the following statements using this scale:

	1		2		
3		4		5	
<i>disagree</i>		<i>disagree</i>			
<i>neutral</i>		<i>agree</i>		<i>agree</i>	
<i>strongly</i>		<i>somewhat</i>		<i>somewhat</i>	
		<i>strongly</i>			

- I enjoyed using the app.*
- I did not enjoy using the app.*
- I learned about Chester’s history using this app*
- The app gave me something to talk about with family and friends*
- The app brought me to places/shops in Chester I would not otherwise visit.*
- The app helped me to meet new people.*
- I will recommend the app to friends.*
- I will use the app again.*
- I’d like to use an app like this in other places.*

	1	2	3	4	5

6. What was the best thing about “Revealing the Rows”?

9. How would you improve “Revealing the Rows”?

Thank you. You may now claim your free gift. When the research is completed, the drawing winner will be contacted via email.

Appendix 5: Invitation To Tender

INVITATION TO TENDER

BRIEF TO CONSULTANTS:

To develop the Anglesey Heritage Website -- a well designed, user-friendly, and fully accessible website that also integrates Web 2.0 ideas to generate interest in and footfall to Anglesey's archaeological sites and monuments.

1. Introduction / Vision for the Project

Menter Mon, under the umbrella of the Mona Antiqua Heritage Tourism Project, are exploring opportunities to interpret and to promote the heritage of the island of Anglesey for the appreciation and enjoyment of visitors and of the local population.

To that end, we seek to create a website that presents Anglesey's heritage in a fresh, engaging, interactive manner. With features like a friendly Introduction, detailed Timeline, and separate pages on historical themes (e.g., Origins, Spiritual Landscapes, Industrial Heritage), the website will serve as a **first stop** for any and all interested in Anglesey heritage, bridging together tourists and locals with varying interests. The site will include, store, and present a wealth of digital content (images, audio, video reconstructions, oral histories) drawn from many sources, with active links to "sister" sites including the People's Collection of Wales, Visit Wales, and visitanglesey.co.uk. Along with heritage content, the site will integrate mapping, in order to orient viewers geographically and to present tours and trails, related to (and presented by) the Themes and cross-linked to Locations (for example, a PDF "guided walk" or a mobile app tour of Bryn Celli Ddu will appear under both "Origins" and "Llanddaniel Fab.")

In addition to functioning as an engaging digital textbook, the site will also integrate core concepts of Web 2.0, fostering participation and creating community by allowing users to share their own content, such as comments, oral histories on video, family photos, via FaceBook or Twitter or a Flickr link. The site will also integrate current mobile technologies; it will host heritage "trails" in various forms: downloadable PDFs or html-based mobile apps/ "web apps" or links to native apps (to be developed separately) and links to trails on the People's Collection. It should feature dedicated space to support Menter Mon's upcoming Events Programme, which will create and promote heritage-themed events across the island. The site should not only advertise these events, but display/feature relevant digital content and invite user interaction

with the themes. The site should integrate “game” ideas that will engage tourists and locals alike, a la geo-caching, SCVNGR, or simple treasure hunts.

This is a functional specification to implement a flexible, bilingual and standards compliant Content Management System which will provide the Mona Antiqua Heritage Tourism Project with the ability to design, maintain and develop a stylish, innovative and adaptable heritage website.

2. Background and Funding

This initiative, referred to as the Mona Antiqua project, is funded via Cadw’s Heritage Tourism Project with funding provided from the European Regional Development Fund, Welsh Assembly Government Mon a Menai funding and the Isle of Anglesey County Council.

The project has a number of components relating to promoting the island’s heritage, including approved themes such as Origins, Spiritual Landscapes and Industrial Wales. We are proposing to establish hubs at four locations on the Island to direct visitors to the Island’s most important sites. A series of tours and trails, focused on the approved themes, will link to the website and may be available digitally also. We are also exploring mechanisms with which to link to the People’s Collection website to share content.

Following the review on Tourism undertaken in 2006, the Isle of Anglesey needs to address key functions within the tourism spectrum. Research undertaken during 2006/2007 has highlighted the need to exploit web technology to generate interest in Anglesey as a destination.

3. Domain Name

Mona Antiqua own the domain name www.MonaAntiqua.co.uk and has considered using this. We realise, however, that a consumer-facing website requires a consumer-facing domain name, one that proves easy to recognize, remember, and recommend to friends. It also needs to prove friendly to speakers of both English and Welsh (or to involve the use of two linked site names). Most important is Search Engine Optimisation. We need a name that users will find quickly with key words. We welcome advice here.

Key Words in English: Anglesey, Heritage, History, community
Key Words in Welsh: Mon, Mam Cymru, hanes, cymuned

4. Design Features

All submissions should provide an account of the features present within their solution for customising the website’s appearance. The ways in which graphical elements are managed, including the use of banners, background

images, buttons, etc should be described. Features that allow for site-wide modification of standard elements are **essential**.

Authors must be prevented from applying manual formatting, and the available styles must only be configurable by administrators.

5. Purpose of the Website

After careful study of current web offerings, Mona Antiqua have discerned a need for a site that:

- Introduces Anglesey Heritage in an intellectually accessible way
- Facilitates further interest in Anglesey Heritage
- Fosters increased tourism to heritage sites
 - Benefiting local economy
 - Funding heritage preservation
- Creates community among and between tourists and locals
 - Generating a ‘buzz’ about local heritage events
 - Allowing users to discuss events, share content, and give feedback (via links to other established social networks)
- Integrates mobile technologies to enhance visitor experiences of heritage sites

5.1 Goal 1: Introduces Anglesey Heritage in an intellectually accessible way

The site should function as a First Stop for Anglesey Heritage. Schoolchildren, tourists, locals, and anyone searching the web for “Anglesey” and “heritage” should come right to it. The home page should be welcoming and friendly, directing users to a brief Introduction of the Themes, a separate and beautifully designed historical Timeline (see http://www.bbc.co.uk/history/interactive/timelines/british/index_embed.shtml for inspiration) and a Welsh-language option (see Bilingual requirements below).

The presentation should prioritise clarity and ease-of-use, avoiding overcomplication. A good example is here: <http://www.historyofyork.org.uk/index.php>

5.2 Goal 2: Generates further interest in Anglesey Heritage

As on the York site mentioned above, when a user of this site selects a theme by clicking on text or a related image, that user moves to a page on the Historical Theme, which provides context, detail, and links for further investigation (see <http://www.historyofyork.org.uk/themes/trade-in-the-medieval-city> for an example). It will also direct users to the site’s individual pages on

each heritage site (perhaps 50 in total). So the site engages users and funnels them onto appropriate links for further research, such as <http://www.megalithic.co.uk/>. These other sites include “sister” sites such as the home page for the Amlwch Industrial Heritage Project or the People’s Collection.

5.3 Goal 3: Fosters increased tourism to heritage sites

Mona Antiqua wish to increase footfall at Anglesey’s more remote, lesser-known, or less “user-friendly” heritage sites, such as Llanddwyn Island, Castell Bryn Gwyn, or Din Llugwy. Each designated heritage site will receive its own page within the website (perhaps 50 in total), providing detail, context, images, and links to relevant video content and mapping function. Many will also contain downloadable guided walking tours in the form of PDFs or MP3s or links to mobile apps (to be developed separately). An example of a site hosting various walking tours: <http://www.visitbrighton.com/site/maps-guides-and-interactive/walking-tours>

Such digital content, presented in an easy-to-follow, easy-to-use format will encourage tourism to (and appreciation for) these heritage sites. Ideally, for example, someone from Kent, by web-surfing “UK” and “stone age” and “heritage,” would find her way to the proposed website, navigate it quickly, and click on the “Barclodiad y Gawres” page. There she finds impressive photos and helpful text, which inspire her then to download the free mobile app for the burial site, shown on the website, and to plan a visit (via a link to visitanglesey.co.uk). Then, later, actually on Anglesey, our ideal website-user uses the mobile app to find her way. The GPS mapping guides her by foot from the car park to the burial chamber, and then, onsite, the app’s embedded video shows her a reenactment of the rituals once performed there. She experiences a vision of the past there, on the spot where it happened – digitally enhanced tourism fully facilitated by our website.

To understand proposed site structure and relationship between pages, please see attached mindmap document.

5.4 Goal 4: Creates links between and among tourists and locals

Menter Mon serves the entire Mon community and seeks to create web spaces that generate dialogue and discussion about Anglesey-related events, heritage, and tourism. The proposed website must reflect this interactive and “listening” attitude. For example, it could include a page titled “Community” that links to user lists on social networking sites, where members share feedback. A great example is this page from the Brooklyn Museum website: <http://www.brooklynmuseum.org/community/> As you can see, the museum hosts a page on Flickr, where patrons share their photos, and also links to a FaceBook page, where museum staff interact with fans about exhibitions. Read more about this digital community-building here: <http://museumtwo.blogspot.com/2007/11/interview-with-brooklyn-museum-shelley.html>

5.5 Goal 5: Integrates mobile technology

In a separate project, Menter Mon are now developing various tours and trails to enhance tourism to many of its heritage sites. The proposed website would need to host these trails, in a variety of formats. As described above, the page on Barclodiad y Gawres might offer a link to a free smartphone app that provides mapping and video content. Another page, for Bryn Celli Ddu perhaps, would offer an attached walking tour in PDF format. Trails on MP3 are another possibility. We need a website that allows for this functionality.

6. Copyright and Ownership

The Mona Antiqua project will expect to take full ownership of all graphical material developed for use on the site, including source files. Access to the source files is required so that Anglesey ICT staff may extend or modify the site, whilst maintaining the established look and feel.

7. Design Process

A full account of the expected design process **must** be stated, including how many conceptual prototypes would be offered within the costs outlined (should the first prove unsatisfactory) and how the development of a design is progressed from inception to completion. This should also include the number of site visits to Anglesey by the design team.

7.1 Brand Guidelines

All templates and design solutions should take full account of the Visit Wales Brand guidelines (copy available upon request), which Anglesey Council's Tourism and marketing team are adhering to, as consistency is the key to driving strong and memorable brands.

[Is this above necessary for our proposed site, or leftover from IoACC tender? Our site is not a brand that is linked to Council or Visit Wales. Independent? Or Linked instead to Menter Mon, or Mona Antiqua brands – do they have 'brands' per se?]

7.2 Design considerations

All submissions should take into account that this will be a customer-orientated website. With design, look and feel being the key requirement for the end user

8. Bilingual Needs

The County Council, a partner in this project, operates a strict policy of

simultaneous bilingual (Welsh & English) publication on its website. The CMS **must** enable the mandatory completion of content on duplicate pages in BOTH languages before it can be released for publishing. The site must offer all information bilingually, including but not limited to:

- Textual information
- Metadata
- Alternate versions of images (where appropriate)
- Search functionality
- Navigation tools
- Links – descriptions and ability to add two separate external links, one in English and the other in Welsh
- Attachments
- Database content – e.g. events, accommodation

It is **mandatory** that the CMS must have a scripted language selection facility, presented on every page, which enables the user to switch directly at will between the Welsh and English versions of each individual page.

Support for Welsh and English languages must be pervasive throughout the CMS. This includes: support for full-text searching across both languages and provision of the accurate portrayal of the Welsh alphabet and character-set.

The ability to publish in additional languages is desirable.

9. Content creation

Authors **must** be supported by a range of easy-to-use and efficient tools for content creation and maintenance.

The CMS must provide a seamless and powerful browser-based authoring environment for template-based authoring that supports elements such as drop-down lists, check boxes, and other elements. This tool must offer extensive support for authors while giving access to the full functionality of the CMS.

The web-based environment should support for all major browsers (Internet Explorer version 6+, Netscape Navigator version 6+, Mozilla, Opera, Mosaic, and Safari etc). The solution should also support new versions of these browsers at no extra cost as part of the support agreement.

The vendor must specify if specific browsers or versions are required to obtain the full authoring functionality.

Editing features must:

- enforce structure
- enforce separation of presentation and content
- provide paragraph and character styles
- provide support for WYSIWYG table editing

- provide creation of hypertext links and related topics
- provide metadata creation - the ability to link with a thesaurus such as the IPSV would be desirable.
- provide a means of checking the changes to a page before publishing the information. This must not require the removal of a page from live status whilst the administrator is editing.

The authoring tool may be custom-developed by the vendor, or built on top of third-party solutions. Where third party solutions are used these must be identified.

9.1 Navigation aids

Authors will require a wide range of navigation aids to work effectively. Functionality required includes:

- browsing the hierarchy of content
- relevant list-based views of categories
- full-text searching with wild card and Boolean facilities
- structured searching
- ability to save searches

9.2 No requirement for specific programming skills

Authors should not be required to have HTML expertise in order to make effective use of the authoring environment. Instead, the CMS must provide a format-neutral mechanism for defining even complex page layouts. The content must then be entered in a way that allows it to be reused in different contexts, and published to multiple formats.

There should not be a necessity for authors to use third party HTML editors, however administrators should have the ability to access and manipulate the HTML.

9.3 External Users administering their own information

For **administrative** purposes, an interface which allows the user to login **securely using ssl technology** via a browser and administers their own details must be provided through the browser.

9.4 Support for varying content types

Much of the information coming from contributors will be textual in nature and in most cases derived from Word documents. GIF or JPEG images will be included as will excel and PDF files.

The CMS must therefore provide an efficient mechanism for importing external file formats into the repository and enabling authors to search for, update and manage files and delete unwanted files.

The services will require the use of specialised plug-ins to display audio and

visual formats supported by the e-gif. Also, integration of a Statistics Service and possibly geo-spatial data may be required. Please **confirm** whether or not the proposed solution will be able to accommodate such third-party applications and scripting.

10.1 Formats

The CMS **must** be able to integrate with external standard database technologies, third party systems, and conform to all relevant current standards (ratified and de facto), including:

- HTML 4.01
- XHTML 1.0
- FTP
- e-GIF
- ASP
- SQL
- CSS
- IPSV

11. Roles

It **must** be possible to identify different roles and responsibilities within the CMS including:

- **Administrator** (responsible for system administration, control over publishing, structural and page template design). It **must** be possible for the System Manager to control the publishing of new or amended pages, to ensure that pages meet quality standards and to be able to access and amend the css.
- **Content authors** - (with the ability to apply content simply to the established structure and templates). This role would be within the capabilities of non-technical staff within the service departments.
- **Trusted users** – with the limited ability to change their content (e.g. an event). This role would need a secure password through the browser interface.

12. Information Management

12.1 Currency

All information on the site needs to be accurate and mechanisms put in place to ensure content is kept up to date. It is expected that every article will be visibly stamped with an 'information correct as of' date, so that the end-user can see when the information was last verified.

Full details of the above and any other measures present to ensure accuracy

of content should be provided.

12.2 Subject Categorisation

Successful subject categorisation is vital to the accessibility of the site and the user's experience of it. A comprehensive site search will greatly enhance the user's chance of finding relevant information, but it is expected that general principles of navigation will rely on a thematic approach.

Anglesey requires the ability to cater for multiple categorisation schemas, either recommended by government guidance or established locally.

The vendor must describe the options for categorising information available within the proposed solution and how it might fit the above. In addition to outlining the options available to the end-user, the vendor must detail the way that categorisation would be set by the editors and administrators using the system.

12.3 Metadata support

The standards governing the expected application of Metadata in Public Sector web sites and systems are covered in by the e-Government Interoperability Framework (e-GIF) and the e-Government Metadata Standard (e-GMS). Vendors should give details of how the proposed solution currently complies with the guidance set down by central government. The CMS **must** allow a range of metadata entries (such as title, description, creator, subject, keywords, etc) to be gathered for content.

12.3.1 Dublin-core metadata

As a baseline, the ordinary non DC title and description metadata tags must be available. In addition the full set of Dublin-core metadata fields must be supported.

12.3.2 Configurable metadata

While the CMS should provide a robust set of default metadata fields, there should be support for creating unlimited additional fields as required. These will be used to capture business-specific details about the content.

13. Linking

Authors must have a simple mechanism for creating a range of bilingual links between content, including hypertext links within the text, and related topics. A description field must be available for explanatory remarks.

13.1 Link management

A massive number of links will be made between topics in the repository. The CMS **must** provide a number of tools for managing these, including:

- automated link checking with an email alert, to ensure that there are no 'broken links'
- consistency checking should occur in 'real time', so that problems can be quickly identified and solved

- global views of the links
- reports listing subsets of the links within the repository
- searchable and reusable link library

In addition to global features, a linking interface should be provided at a local level when editing individual pages. This must present the links in a clear and obvious fashion.

14. Database Administration Tools

The Content Management System **must** be built on a central repository, which holds all content, metadata, rules and supporting information. Around this, process and disciplines must be established that ensure that day-to-day activities run smoothly and efficiently.

14.1 Version control & archiving

Strict version control is necessary for legal accountability, backup and disaster recovery. A simple but powerful interface must be provided for these features.

The following specific features must be provided:

14.1.1 Recovery

All changes to the content **must** be tracked, and archived. It should be possible, via a simple interface, to locate an archived version and restore it into the repository.

In the case of rollback, it should be possible to replace the current production version with the recovered content. This must allow mistakes to be easily rectified.

15. Security

Appropriate security must be in place to manage user access to the repository, including:

- support for multiple security and access levels
- applying security levels to specific users, roles and groups
- full audit trails of critical actions by users
- explicit support for decentralised authoring
- ability to restrict access to specific sections of the repository
- simple and efficient administration tools

15.1 Audit trails and activity logs

Comprehensive logs must be kept of all relevant actions performed within the CMS. Of particular importance are the security audit trails, which track sensitive activities.

16. Integration with external systems

The Authority requires a complete, seamless solution for managing information. To achieve this, the CMS will eventually be integrated cleanly with a range of existing applications and systems.

16.1 E-mail notifications

There must be a facility to send notifications, warning and error messages via e-mail to specified users.

16.2 XML support

XML is the industry standard for the interchange of information between disparate systems and organisations. The CMS must support the reading and writing of information in documented XML formats and XML schema.

16.3 HTML support

Content created must conform to current HTML standard at the time updated promptly as W3 Standards change; to ensure its conformance to standards.

16.4 Exporting and Importing of content

The CMS must have mechanisms to provide content to third parties, including the Government Gateway, on a regular basis. This would be delivered in XML format to allow easy use by these external organisations.

17. Publishing

The CMS **must** incorporate a flexible publishing engine, in order to meet the full needs of the authority. It is expected that a range of advanced features will be required to manage the publication of the website.

It **must** be simple to integrate code to provide additional publishing functionality. In this way, specific additional functionality can be added without having to change or update the underlying publishing engine.

The vendor should document the process for enhancing the published pages in this way. This includes:

- programming languages supported
- skills required to develop new code
- support for multiple formats

17.1 HTML

This will be the primary output of the publishing system. It must be possible to take the one source of content, and publish it to different HTML page layouts and formats.

The HTML produced should also be viewable in all major web browsers. If necessary, this should involve 'browser detection' and delivery of targeted HTML versions.

17.2 Error reporting

Any errors encountered during publishing should be reported in a timely fashion. This includes broken links, or other content issues.

17.3 Accessibility

The CMS **must** be accessible to all users, including those with disabilities, including the following groups:

- deaf and hard of hearing
- blind and partially sighted
- people with cognitive impairments
- people with learning disabilities
- people with motor impairments
- people with colour blindness
- older users

Menter Mon insists that any software writing to the WWW meets the minimum W3C WAI Conformance Level "AA". and requires that any CSS and HTML deployed or compiled by any Content Management System or similar software supplied comply with the relevant W3C standards / validation mechanisms.

The vendor is encouraged to make reference to relevant Government or industry standards and legislation when responding to this requirement.

17.4 Searching

A global bilingual site-search is required to facilitate easy access to all content. Full details of the search function to be included **must** be given, but at a basic level the search should be able to offer Boolean operators and truncated wildcard searching.

17.5 Friendly URL's

The solution **must** support the creation of friendly URLs for key pages.

18. Standards

All Tenders **must** provide an account of how the proposed solution addresses requirements stipulated in the following guidelines.

- RNIB - http://www.rnib.org.uk/xpedio/groups/public/documents/publicwebsite/public_resources.hcsp
- <http://www.equalityhumanrights.com/en/publicationsandresources/Disability/Pages/Websiteaccessibilityguidance.aspx>
- W3C - <http://www.w3.org/WAI/>
- <http://www.coi.gov.uk/guidance.php?page=129>

19. Timescale

Menter Mon seeks to fully implement the system within 4 months of agreeing the contract. The Tourism/Heritage website must be available for the 2012 tourism season.

20. Quotation

Your proposal should:

20.1 Define the recommended hardware and software requirements needed to install and run your solution.

20.2 Describe and provide costs for the licensing arrangements for your own solution, and any supporting components.

20.3 Outline strategies for expansion and revision of the solution, including future support, development arrangements & costs and **all restrictions** placed upon alterations to code, functionality or appearance by in-house developers or third-party contractors.

20.4 Outline website design and CMS system costs.

20.5 Outline suggested functionality and costs for potential facilities (please provide costs per functionality). It may not be possible for the authority to develop all these facilities at the outset but they have been identified as desirable.

- Interactive Timeline
- Home page, Introduction, plus a page for each Theme, with links then to each relevant heritage site's page (number of sites?)
- Administrator's blog template
- Map-based interface
- Online event calendar with backend database that provides output in Word or Excel format. (This requirement is essential and will need to be fully explained).
- Trails hosting in multiple formats (PDF, MP3, link to mobile app stores)
- Community page with links to FaceBook pages, Flickr sites, etc..
- Global bilingual search
- An interface which allows a trusted user to login **securely** via a browser and administer their own details e.g. events or accommodation
- Online games etc

20.6 The pricing model must include:-

- Installation of the system
- Design guide – electronic version
- Introductory training – please explain whether this includes on site training
- Full system documentation in an electronic format
- Licensing
- Technical support - please specify cost per annum and duration of proposal
- Upgrade costs per annum to include the above elements

All quotations must be fully inclusive of all costs.

21. Other information

Menter Mon requires details of provision to other organisations. This should include references and testimonials.

22. Award of contract

The contract will be assessed on a combination of:-

- cost
- system features
- licensing agreement
- support provided
- references

Please note that the above factors are not listed in order of importance.

Appendix 6: Anglesey Heritage Website Tender Analysis: System Features

Anglesey Heritage Website Tender Analysis: System Features							
Company:		Guardian	WISS	Glumedia	Ultimedia	Rippleffect	View Creative
CMS	Proposed	10	6	5	10	10	
	Previous	9	7	5	10	10	
	Comments	Umbraco: os, C#	bespoke CMS	spoke CMS; LAMP	EpiServer CMS	ASP.NET	Expression Engine: PHP/MySQL
IA/Navigation	Proposed					5	
	Previous	10	6			6	6
	Comments	Solr search	hard to find items			Functional	
Design	Proposed	9	5			10	
	Previous	8	5			8	8
	Comments	land;pod great;kew	static, no motion			efc:great	G overlap; M beau
Mapping	Proposed				6	5	
	Previous		5			8	
	Comments	EC:nw	n regions -- basic;		brief mention	rr: adequate	
Timeline	Proposed				10	9	
	Previous	10			10	9	
	Comments	HMT:ex		good ideas, understand		efc:well done	
Mobile	Proposed					10	
	Previous	9				10	
	Comments	EC:mobile				efc:excellent	
Blogs	Proposed					10	
	Previous	10				10	6
	Comments	Kew ex					M bland
Bilingual	Proposed		9		7	5	10
	Previous		10			6	
	Comments		good experience		previous WAG,	hial nf;	NW; w
Social Media	Proposed	8		5	6	5	
	Previous		4			10	0
	Comments		Web 1.0	mention	just "share with"	UC: impressive	no mention
Events	Proposed		6			5	
	Previous	10	4			10	
	Comments	kew ex	onus on user			efc: ex	
Embed/Synd Video, RSS	Proposed	8	3				
	Previous	6	2			9	
	Comments	hial nw;ucas na				well done	
New Ideas	Proposed		0			10	
	Previous		0			10	
	Comments					brill:voices,schools	
DAM	Proposed	5	6				
	Previous						
	Comments						
Standards/Accredi	Proposed	5	5	5		5	
	Previous						
	Comments						
Process	Proposed	5	8		8	5	
	Previous						
	Comments	Agile, PRINCE2	Agile,			PRINCE2	
Testing/Analytics	Proposed	10	4			10	
	Previous						
	Comments						
SEO	Proposed	10	0			10	
	Previous	10	0			0	
	Comments					? No evidence	
TOTAL	Proposed	70	52	15	47	114	10
	Previous	82	43	5	20	106	20
	Comments						

Appendix 7: Anglesey Heritage Website Tender Evaluation Meeting

<p>Anglesey Heritage Website</p> <p>Tender Evaluation Meeting 23 September 2011</p> <p>Susanne Skubik Intriligator Bangor University</p>	<p>Guardian Digital Agency</p> <p><u>Pro:</u></p> <ul style="list-style-type: none"> ■ Technical stuff: CMS, design process, standards ■ Experience <ul style="list-style-type: none"> ▪ www.guardian.co.uk -- SEO ▪ Kew Gardens, Great Plant Hunt ▪ Electoral Commission
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<p>Guardian Digital Agency</p> <p><u>Pro:</u></p> <ul style="list-style-type: none"> ■ Detailed, thoughtful proposal <ul style="list-style-type: none"> ▪ Design mock-up: excellent ideas ▪ Conversational, web 2.0: "We" and "You" <ul style="list-style-type: none"> ▪ YouTube, Tumblr, Twitter ▪ Events calendar ▪ Interactive Mapping <ul style="list-style-type: none"> ▪ 'drill down' right from home page 	<p>Guardian Digital Agency</p> <p><u>Con:</u></p> <ul style="list-style-type: none"> ■ Cost: £129,000
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<p>WiSS</p> <p><u>Pro:</u></p> <ul style="list-style-type: none"> ■ Technical stuff: CMS, standards ■ Hosting contract in place ■ Familiar 	<p>WiSS</p> <ul style="list-style-type: none"> ■ Arwel Jones proposal <ul style="list-style-type: none"> ▪ Project management support ▪ Heritage management support ▪ Integration with other projects ▪ Client and steering group liaison ▪ 12.5 days = £5,000
--	--

WISS

Con:

- Proposal
 - No design consciousness, not customer-facing
 - Unfriendly: no ToC, organisation
- Websites
 - Static, no slideshows, no multimedia
 - Onus on user
 - Home > to do > history > Swtan
 - "Why not search our database?"
 - No social media, very web 1.0

Glumedia

Pro:

Glumedia

Con

- Proposal
 - Lacks detail
 - Lacks design
 - Lacks new ideas
- Websites
 - Plain, uninspiring
 - Contain errors, broken links

Ultimedia

Pro

- Technical stuff
- Experience
 - 16 years
 - EpiServer
 - Coop: interlinked sites with 300,000 pages
 - NHS "web in a box", MoD, WAG
 - www.bbcap.co.uk, imagineschooldesign

Ultimedia

Con:

- Proposal
 - Repetitive, too detailed
 - Pricy
- Websites
 - Co-op travel: bad SEO?
 - Value for money?

Rippleffect

- Pro
- Technical stuff: CMS, standards compliant, process
- Proposal
 - Detailed, thoughtful, organised, design, customer-facing attitude
 - New ideas!

Rippleffect

- Websites
 - Everton fc
 - Complex yet simple, engaging design
 - multimedia
 - Conversational, inclusive: constant Feedback option, twitter feed, guest bloggers, whole community area
 - UCASconnect
 - Excellent use of SM, reaching target demo

Rippleffect

- New ideas!
 - Voices of the Island
 - Anglesey TV
 - Island Stream
 - Inspire Me
 - Learning Zone

Rippleffect

Con:

- Questions
 - Mapping: Redrow, Everton fanmap
 - Other languages: not shown on hial.co.uk
 - How much did evertonfc cost? Ballpark?

View Creative

Pro

- Proposal
 - Tech specs: CMS, standards
 - North Wales
 - Cheap
 - Fluent Welsh speaker on staff
 - Low cost: £17k

View Creative

Con

- Websites
 - Errors, misspellings
 - Static
 - Very little SM, 1.0

Other issues to discuss:

- Mission, purpose
- Content development: budget, staff, sources
- Sustainability: staffing
- Social media: rules, purpose, method
- Crowdsourcing
- Advertising

Appendix 8: Preparing for Round 2: Interviews with Web Developers

Preparing for Round 2: Interviews with Web Developers

Questions to ask / consider:

1. **Design.**

In our interview invitation letter, we wrote:

“Please bring two design/concept ideas or “splash pages.” We would like to see how you would represent the site visually and also a rough outline of site architecture.”

Are the designs before you:

1. Customer-facing?
 - a. non-technical
 - b. welcoming, vibrant
2. Engaging to a wide audience? (For example . . .)
 - a. Middle-aged English tourist with no experience of Wales
 - b. younger “backpacker” tourist
 - c. frequently visiting family with children, from the Wirral
 - d. School-age child investigating Roman history
 - e. Welsh-speaking tourist from another area
 - f. member of the local community (English- or Welsh-speaking)
 - g. heritage enthusiast from New Zealand, Canada, South Africa, etc.

2. **Site structure.** In the brief, we asked for a structure organised around Themes and Places.

A. Do the design concepts presented include basic elements we requested, such as Themes, Places, mapping, search, and a timeline?

B. Have they outlined a process for creating and testing a site structure? Does it inspire confidence?

(“Wireframing” article: <http://www.sitepoint.com/wire-frame-your-site/> Susanne is now working on a flow diagram/site map, as a beginning point for discussion.)

C. Three click rule. Imagine you are a site user, and choose an Anglesey attraction or a specific event or place you are investigating (e.g., windmill, “copper lady,” birds of South Stack). Within this company’s proposed design/structure, would you find what you’re looking for in three clicks or less?

(For more on site structure, see:

<http://www.businesslink.gov.uk/bdotg/action/detail?itemId=1075384976&r.i=1087197841&r.l1=1073861169&r.l2=1073858811&r.l3=1075384855&r.s=m&r.t=RESOURCES&type=RESOURCES>)

3. Social Media, Web 2.0, interactive elements.

A. Does the proposed website include social media? At what level of integration?

1. Links to Facebook page, Twitter feed, Flickr group, YouTube channel
 2. Live Twitter feed on homepage, embedded YouTube channel on homepage
 3. blogs, guest blogs
 4. Allow registered guests to upload content?
 5. email newsletters
- B. How much experience does the company have with social media? Can it provide guidance on best practice?
4. Language Requirements.
Has the company designed bilingual sites? How do they propose to design this one? How would bilingual search operate? Do they have a process outlined for version control for translation?
5. Open source
Can you give us more specifics about your proposed platform? Is it a customised ASP.NET system? Is it proprietary? If not, would you be able, in future, to provide us with the source code?
Would you be willing or able to provide a PHP-based platform?
6. Hosting and maintenance
Our interview invitation letter requested “a complete breakdown of costs, including annual support fees and hourly rates.”
What does the annual fee include?
(Training, hosting, licensing, problem investigation, access to analytics, CMS updates)
If we chose to host elsewhere, how does that affect costings?
7. Does the company have any new ideas to offer?
(For example, one company proposed a panel of regular bloggers to represent various demographic groups, etc.)
8. Does the company display an understanding of the heritage and non profit sectors?
9. Does the company display an understanding of Anglesey, Wales, etc?
10. Does the company’s representative inspire confidence in his/her ability to create/develop an effective working partnership?

Appendix 9: Email 12 October 2011

From: Pegi Allsop [<mailto:Pegi.Allsop@anglesey.gov.uk>] **Sent:** 12 October 2011 13:37 **To:** Neil Johnstone **Subject:** RE: Questions for Web Developers, 14 Oct (skubik123@gmail.com)

Hi Neil,

I have a few comments re the questions.

4. Can you explain "version control for translation"

6. Hosting and maintenance.

Are you intending to host on separate servers? I believe that we had offered and agreed to host the website free of charge on the Isle of Anglesey County council web servers which includes regular backup to a back up server. Our servers provide a [ASP.NET](#) platform.

We can also provide free access to our analytics software which provides excellent in depth statistical analysis of the site on an IP basis.

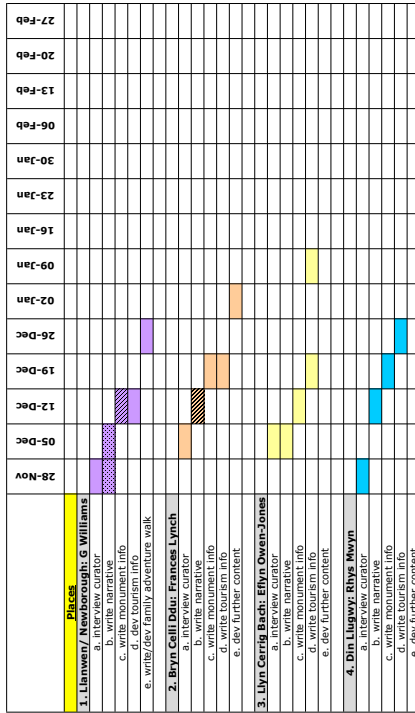
I would like to read through the three submissions. Can you provide me with copies today? I'm happy to collect.

Regards

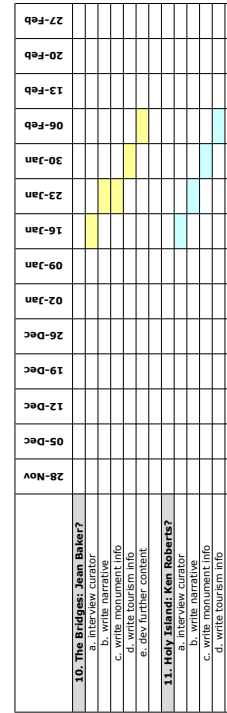
Pegi

Appendix 10: Gantt Chart

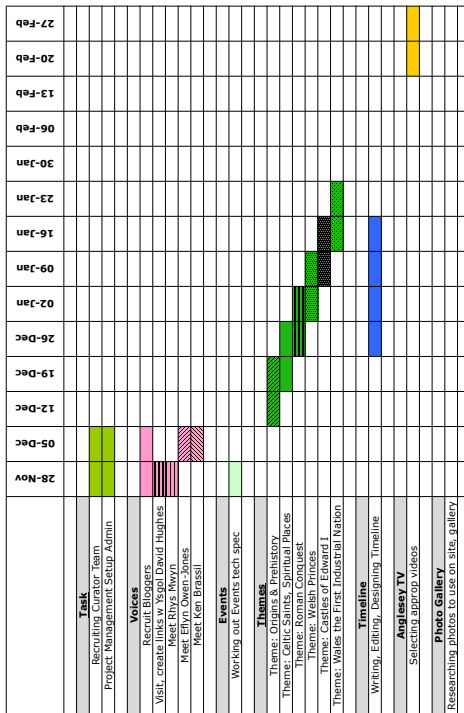
Anglesey Heritage Website - Content Development Timeline - Page 2



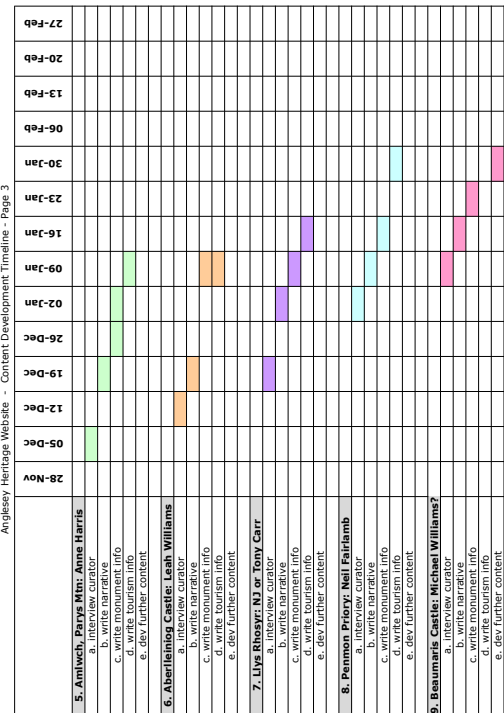
Anglesey Heritage Website - Content Development Timeline - Page 4



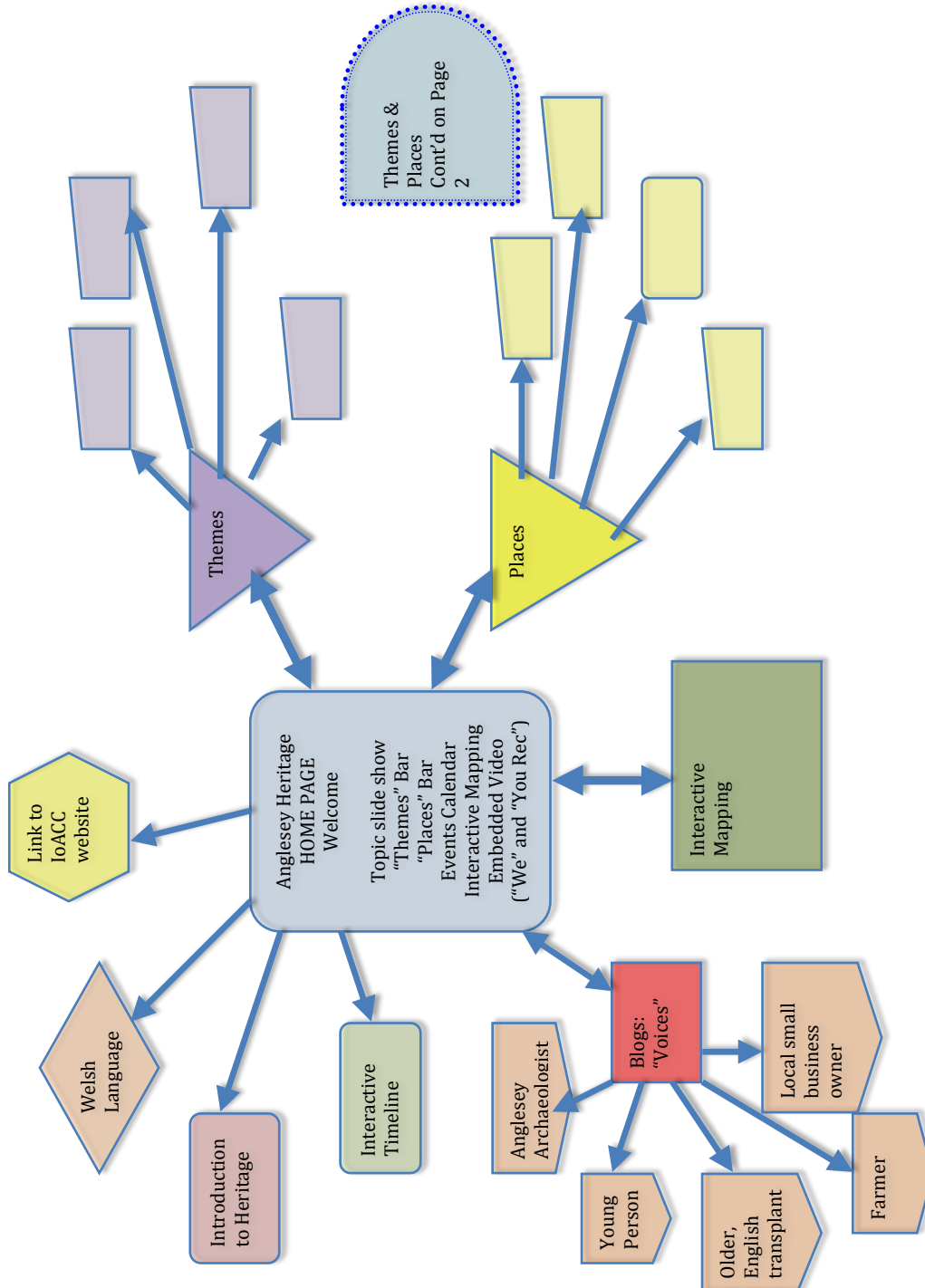
Anglesey Heritage Website - Content Development Timeline - Page 1



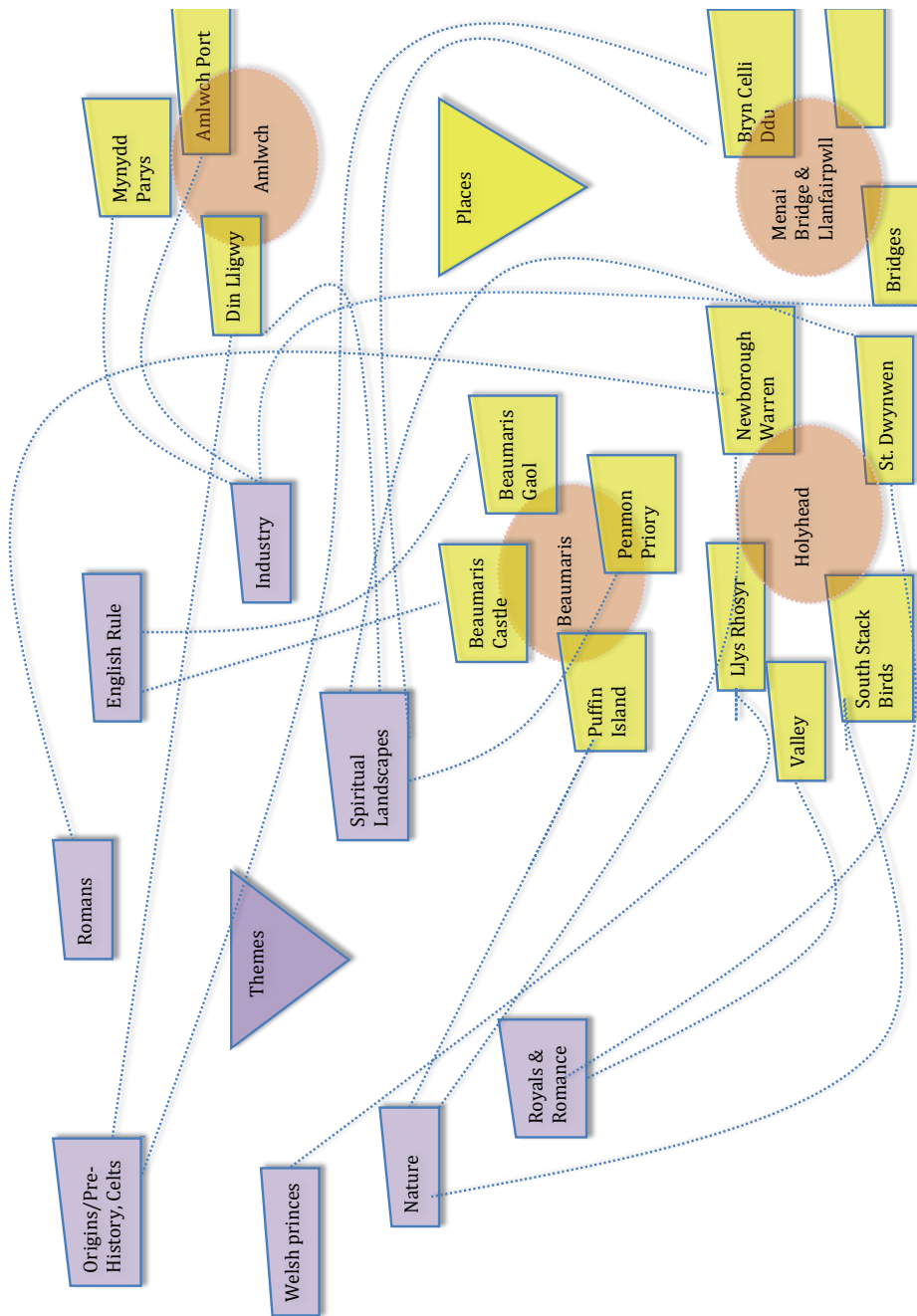
Anglesey Heritage Website - Content Development Timeline - Page 3



Appendix 11: Flow Chart Page 1



Appendix 12: Flow Chart Page2



Appendix 13: 15 March email re: Master Pages

To Neil, Pegi, Hayden, Ben,

15 March 2012

Hi, all.

We are still hoping to meet on Friday, 30 March, pending Ben's schedule.

I had one last query about the wireframes, and Hayden and I discussed it on Tuesday. I realised that I want to reiterate our decision, for the sake of clarity.

Both the "Places" pages and the "Themes" pages will utilize the wireframe that Ripple has called Master Page.

I realise that I need a bit more functionality here than is laid out on the Master Page wireframe. Specifically:

1. The Places pages will need spaces for "visiting info" such as directions, hours, toilets, etc. Hayden says there can a box or icon near the bottom of the page. It will be clickable and reveal the relevant info without disrupting the design.
2. Places and Themes (using Master) should have comments space below.
3. Places should also feature, perhaps on the right, a space for a small photo of the curator, with a one-sentence bio, or a clickable bio.

Can we add these in, please?

Can we move forward with the sign-off, please?

Thank you
Susanne

Appendix 14: Meeting re: Documenting Tech Spec Expectations for Rippleffect

Anglesey Heritage Website

Meeting re: Documenting Technical Spec Expectations for Rippleffect Friday, 2 December 2011

Attending: Neil Johnstone, Michael Thomas, Susanne Intriligator, Stephen ?

Apologies: Pegi Allsop

Discussion around the need to create more specific descriptions for Rippleffect, to show how important elements of the website will be linked together. We decided to focus on the Events area as an example.

Events Functionalities

- To be fed into the site from loACC's visitanglesey.co.uk, then edited in-house by the website manager. (On the assumption that such editing boosts Search Engine Optimisation.)
- Ripple need to create the correct code to receive the feed from loACC
- Events should be cross-linked to "places" on the website (e.g., an event at Beaumaris Castle needs to link to our page on Beaumaris).
- Events should also link to the mapping function, under "Planning a Visit," so that the map would show events during the next week or a selected week.
- Events should also link to pertinent items in the photo gallery.
- Individual events should also, if available, offer hyperlinks to events organizers (e.g., registration pages).
- "View Calendar" function (linked into Events listings) needs to offer the user opportunity to select a specific date and display events around that date.
- "View Calendar" needs to be graphical
- "Plan a Visit" mapping should offer a "where to stay" button, which when clicked, opens a new smaller window showing info from loACC's database of accommodation. Idea: the user remains on Anglesey Heritage website – it waits in the background – and can return easily, not "clicking away from us" and getting lost.

Appendix 15: Email to Sara Elin Roberts

16 November 2012

Email to Sara Elin Roberts, principal Menter Mon translator to the website

Re translation issues

Sarah,

Hi there. I'm sorting out your attachment about the inaccessible stuff on the website that isn't yet translated. It's a mix of things really. Some is for Ripple, some is stuff that we can get to within the CMS and I should have shown you. Maybe I can do it when next we see each other. (Will you be in at MM next week at all?)

Most of the items on your list are "hard-coded" words, like the Navigation elements (Voices, Events, Key Places) that Ripple for which will have to input translations. So I've edited your list into a simple list for them and have passed it on.

Then I took out what I could do myself (or what Ripple needs to do separately from the hard-coded words), with these explanations for you.

1. You're right -- there's no "Welsh" tab for Author Description under Voice Details in Voices. I've asked Ripple to add one, via their bug-fixing board. When it's there, I'll add your translations, which I've put into a separate Word document.

2. There's a bug concerning the Welsh version of the Intro Text for the Voices. It appears in the CMS and you've input it there clearly, but on the Front End when you go to the Voices Landing page for each essay, the intro text appears in English. I've flagged it for Ripple.

3. But for RS Thomas's A Holyhead Childhood, you've given me a translation not of the "intro text" I chose but of the first two lines of the body text. That body text appears in Welsh on the site, so I'm not sure why you've included it in your Word doc. I can see that RS is missing his Welsh author description, but is there another problem? Can you clarify?

4. Re: Events, that text is actually in the CMS. I had just neglected to show you where to input the Welsh. I have now copied your Welsh text into the fields, but perhaps you should doublecheck me. In the future, however, we shall be adding Events all the time, so I'll need you (or Huw) to help out.

To see it, go to

Content > Events > 2012 > 10 > Llyn Cerrig Bach > Content (Welsh)

(or similar, relevant years and months) to add translations for events listing items.

5. RE: "7,000 years of heritage on one website" and "Welcome to Your Community Heritage Website," these are text pieces in a revolving window on the Homepage which is called the **Carousel**. (You need the proper jargon to find it in the CMS.) If you go to:

Media > Carousel > you'll see entries for the four different windows now revolving in the Carousel. The two phrases you've highlighted are on the Menai Bridge entry. I just checked the CMS and there are no Welsh content fields for the Carousel entries presently. I've flagged it with Ripple. They should add them soon. Then we'll need complete translations for all four windows. Plus I intend to change them at least weekly, so that will need weekly translating, too.

Thanks for your good good feedback!
Susanne

Appendix 16: The Future of the Past



The Future of the Past: Anglesey Heritage Goes Social 7,000-Year Story Meets the Collaborative Web

Llangefni, Anglesey, 15 March 2013

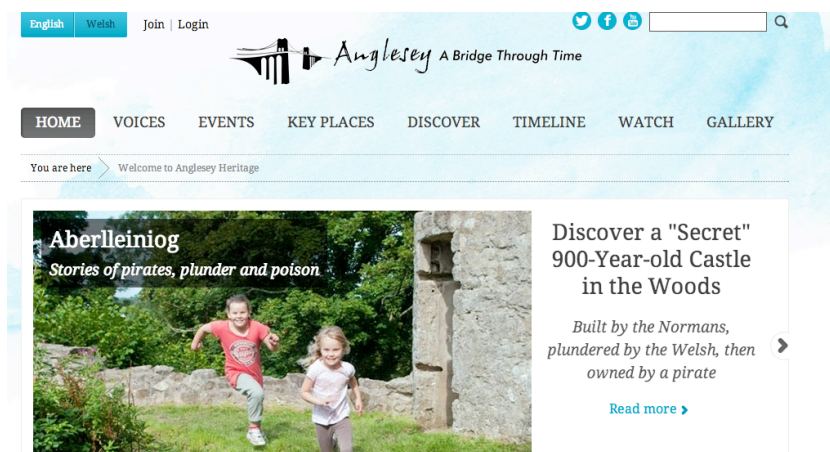
Along with its funding partners and Heritage Minister Huw Lewis, Menter Môn today announced the public debut of its cutting-edge new bilingual website, “**Anglesey: A Bridge Through Time.**”

Designed in collaboration with Cadw and Bangor University, the website is the first of its kind in the UK – first to integrate a story-based approach to heritage interpretation with hosting by local community members, photo and video-sharing, and social media elements. The idea is to stimulate tourism (and local pride) by *opening up the heritage discussion*, both locally and globally, via the web.

“Anglesey is chock-a-block with important heritage sites – more than just about anywhere else in the UK,” said Neil Johnstone, archaeologist and Menter Môn’s heritage officer, who supervises the project. “Most of them are set within stunning natural scenery and have fascinating stories to share with visitors.

“We needed a new – and sustainable – way to convey these stories to our visitors, both current and potential, so we turned to Bangor University for advice.”

Enter Susanne Skubik Intriligator, a journalist-turned-PhD researcher in digital media, funded through the KESS programme. “The last decade has shown us that web-based collaborative projects are transforming our world, changing how we learn, shop, vote, behave. Look at Wikipedia, YouTube, the Arab Spring. I told Neil that a new website not only needed to integrate social media outlets – Facebook, Twitter, etc – but also the larger collaborative *idea*.



“Anglesey is full of heritage sites, yes, but also of heritage *enthusiasts*. If you want long-term sustainability (plus the kind of bustle that drives up Google rankings) get

people involved! Bring in voices from the community, invite visitors to share comments, photos and memories, spark conversation with competitions and quizzes.”

Together, the two recruited a team of local experts to advise, write for, and “host” the website. For each Key Place featured – Copper Kingdom, Ynys Llanddwyn, Llys Rhosyr – a local expert provides not only visiting information and local lore, but also a smiling welcome and a personal response to comments and questions posted. Hosts include archaeologist/musician Rhys Mwyn (Din Lligwy), CCW Warden Graham Williams (Llanddwyn) and local rector Neil Fairlamb (Penmon).

The website also features an eclectic mix of Anglesey-related blogs, from authors such as Charles Dickens, Amlwch memoirist Bryan Hope, contemporary Druid Kris Hughes, and medieval historian Sara Elin Roberts.

“The goal was to show Anglesey as a vibrant, diverse community, itching to share its fascinating stories with the world – and it works,” said Ken Brassil, Archaeology / History Education Officer of the National Museum Wales. On the website, Brassil hosts a video tour of Bryn Celli Ddu, a Neolithic burial site.

“We are extremely proud of the new website,” said Menter Môn’s Managing Director Gerallt Llewellyn Jones. “It shows our island in its best light, and it will undoubtedly boost not only our tourism economy but local pride as well.”

Huw Lewis, Heritage Minister for Wales, concurred. “This website exemplifies what we mean when we speak of ‘public engagement’ in heritage. ”

The website is hosted on servers owned by Anglesey Council Council. It was built by Rippleffect Digital Agency of Liverpool. Susanne Intriligator’s work was part-funded by the EU’s Convergence European Regional Development Fund through the Welsh Assembly Government.



(To visit the website on its trial servers, before public debut, go to: www.anglesey.win.rippleffect.com. After 15 March, go to www.angleseyheritage.com)

Appendix 17: Dear Mr. David Anderson

Dear Mr. David Anderson,

Professor Gareth Wyn Jones suggested that I prepare a brief summary statement, in preparation for your meeting today.

By way of introduction, I am a PhD student in digital media at Bangor, working with Prof. Wyn Jones and Menter Mon on developing a digital media strategy for Amlwch and for all of Anglesey. In that context, I recently attended the MuseumNext conference in Edinburgh, which is Europe's largest gathering on social media for museums. MuseumNext featured speakers from the forthcoming 9/11 museum in New York, President Obama's online campaign strategists, Guggenheim, Tate Membership scheme, National Museums Scotland, Science Museum London, the Australian Museum, and more.

Beyond simply adding Facebook and Twitter to existing websites, these innovators are [using the web socially](#), to create lasting relationships between institutions and the 'audiences' they serve. They are re-envisioning museums – moving from “museums as static caretakers of objects who sometimes engage in social activities” to “museums as social organisations” first and foremost. It's a paradigm shift, in line with a larger cultural shift.

It's about using the Web to:

- Collect cultural heritage
- Create individual relationships
- Build communities of interest
- Crowd-source artefacts, stories, data
- Crowd-curate exhibitions
- Crowd-curate online databases and collections
- Build a “[museum without walls](#)”
- Shift the focus from buildings and objects to stories and people

Please allow me to recommend:

I. General trends in the museum paradigm shift:

1. MuseumNext <http://www.museumnext.org/2010/blog>

Research on how museums are using Facebook, Twitter, Augmented Reality, and bespoke games. Great presentation on arts marketing trends in the UK, along with a manifesto for cultural institutions and social media.

2. Museum Next attendees on integrating its message into their museums:

<http://www.museumnext.com/>

II. New “museum without walls” examples:

1. The National History Museum of the Netherlands

<http://translate.google.com/translate?hl=en&sl=nl&u=http://www.innl.nl/&ei=dE7vTbmkOoOxhQf46KyRCQ&sa=X&oi=translate&ct=result&resnum=1&ved=0CCQQ7gEwAA&prev=/search%3Fq%3Dinnl.nl%26hl%3Den%26client%3Dfirefox-a%26hs%3DtDw%26rls%3Dorg.mozilla:en-US:official%26prmd%3Divns>

or

<http://www.innl.nl/>

(Then use Google translate to access in English)

Until three years ago, the Netherlands had no national history museum. It still has no building. What it does have is a “museum without walls” – a website that aims to “inspire the historical imagination” via stories about people, combined with a public events programme that raises awareness and personal engagement. In addition, the museum (innl.nl) runs community building projects such as:

1a. The Jewish Community Memorial of the Netherlands

<http://www.communityjoodsmonument.nl/>

This is an online memorial to the country’s Jews, created /collected online from thousands of submissions (photos, stories, data).

1b. Geheugen van oost (Memories of the East)

http://translate.google.com/translate?hl=en&sl=nl&u=http://www.geheugenvanoost.nl/&ei=pk_vTcTPJZS2hAfAw_SmCQ&sa=X&oi=translate&ct=result&resnum=1&ved=0CCkQ7gEwAA&prev=/search%3Fq%3Dgeheugen%2Bvan%2Boost%26hl%3Den%26client%3Dfirefox-a%26hs%3DWdb%26rls%3Dorg.mozilla:en-US:official%26prmd%3Divns

This is a “story-telling community” website, collecting oral histories from a neighbourhood in Amsterdam.

2. Remembering Scotland at War:

<http://www.rememberingscotlandatwar.org.uk/>

Powerful online museum about all of Scotland’s conflicts, plus a “community” area where people can upload photos and stories from their own experiences or from their own families. Even soldiers involved in current conflicts contribute.

3. Intangible Cultural Heritage in Scotland

<http://www.ichscotlandwiki.org/index.php?title=Welcome>

In answer to UNESCO’s 1993 call for nations to collect their “intangible” (living) cultural heritage, Museums Galleries Scotland have created a community programme that visits local groups and teaches them how to contribute photos/stories of their rituals, practices, games, festivals to an online wiki collection.

III. Crowd-sourced and crowd-curated exhibitions:

Brooklyn Museum

<http://www.brooklynmuseum.org/community/blogosphere/author/bernsteins/>

A leader in crowd-sourced exhibitions, Brooklyn is also a pioneer in crowd-curation – developing techniques that engage online communities in the process of ‘tagging’ database items to facilitate search (or evaluating items). Like Google image labeling (<http://images.google.com/imagelabeler>). So that once we have these huge stores of digital information, we can interact with them intelligently.

IV. Arts Marketing and Customer Relationship Management:

Blue State Digital on creating long-term online relationships that lead to political action and fundraising <http://www.bluestatedigital.com/about/>

V. The larger cultural paradigm shift

Clay Shirky

http://www.ted.com/talks/clay_shirky_how_cognitive_surplus_will_change_the_world.html

http://www.ted.com/talks/clay_shirky_how_cellphones_twitter_facebook_can_make_history.html

How can the web revolution change the world? Shirky’s just one commentator, but he’s a fantastic place to start. Well worth your time.

Before you go to Scotland next week, please check out:

Sharing stories within museums:

<http://www.guardian.co.uk/edinburgh/2011/apr/14/edinburgh-national-museum-scotland-qr-codes>

<http://www.museumsgalleriesscotland.org.uk/news/news-article/393/museum-without-walls-one-of-11-new-projects-funded>

Thank you for your time and attention. If I can be of any further assistance, please contact me.

Best regards,

Susanne Skubik Intriligator
KESS Scholar, PhD researcher in Digital Media
School of Creative Studies and Media
Bangor University Bangor, Wales, UK
skubik123@gmail.com
wonder@post.harvard.edu
(mobile) 07713 088141

Appendix 18: Dear Eflyn Owen-Jones

Dear Eflyn Owen-Jones,

22 November 2011

Cyfarchion y Tymor. (Or is it too early to say that?) Neil Johnstone, Heritage Officer at Menter Mon, urged me to write to you, in hopes you might be interested to help us with a new project.

As you know, Neil's highest priorities are preserving Anglesey's many heritage sites and providing more economic opportunities for the island's people. To those ends, he's secured grant funding to create a new website, designed to promote both tourism and local pride, provisionally titled, "Explore Ancient Anglesey."

As a PhD student in digital media at Bangor University, I've been working directly with Neil for a year now, creating a digital strategy to draw more tourism footfall (and sustainable income) to the island's smaller sites. We hope that the new website will serve not only to highlight Anglesey's rich heritage but also to attract tourists, visitors, and residents into larger, ongoing, sustainable conversation about Anglesey's past and present and about the place of heritage in the modern world.

That's where you come in. Instead of building this website one page at a time, or even one place at a time, we want to build it one *person* at a time. Our vision is to create a community conversation from the ground up, by inviting in first the people who are already the most passionate defenders of Anglesey heritage. You, for instance. (And perhaps Frances Lynch, Tony Carr, Neil Fairlamb, Ken Brassil, and others.)

I would love to see a page on the web that somehow captures and communicates – in photos, video, audio, text, drawings, maps, 3-D reconstructions, etc – your fascination with Llyn Cerrig Bach. Maybe it's a "Q and A," or a conversation between you and a local school group, or a walking tour on video, or a treasure map. Maybe it's all these things or something else entirely.

Along with representatives from Anglesey county council, Neil and I have selected a web development company and are now working on the actual design of the site. We hope to have it running early in the new year.

Would you (please) be interested in attending a brief kickoff meeting at Menter Mon, next Friday, 2 December, at 10 am?

Please feel free to phone me with any questions or concerns.

Dymuniadau gorau,

Susanne Skubik Intriligator
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(home) 01248 208 520

Appendix 19: 1 March Team Email

From: Susanne Skubik Intriligator <skubik123@gmail.com>

Subject: Anglesey Heritage Website news

Date: 1 March 2012 10:42:46 GMT

Dear **Anne, Leah, Rhys, Eflyn, Gareth, Alison, Ken, Frances, Ken, Neil, Sean, Adele, Pat, Graham, Michael, Bob, Kris, Huw, Phil, Robert, Neil, Gwerfyl, Mike, Pegi** and all the friends of the Anglesey Heritage Website Team,

Hello and Happy St. David's Day!

It's been about a month since you've received an update from me about our joint project, the new Anglesey Heritage website. I am pleased to tell you that development is moving right along.



Design: Much of our time in the last month has been devoted to fine-tuning the technical specification agreement with our design team, Rippleffect of Liverpool. We've been working out hosting arrangements, bilingual functionality, rendering on mobile platforms, and loads of other boring details. But there's good news -- it looks like we're all sorted now and ready to move on with the build.

Timeline: Along with Phil Steele and Robert Williams of Magma Llyfrau, we've created a fine draft for the timeline, and we've generated a good list of photos to illustrate it.

Images: Just this week, I've begun my photo research, looking for "free use" gems in the image collections of Menter Mon, CADW, VisitWales and Isle of Anglesey County Council. There are some gorgeous photos there for the taking!

Theme essays: Phil Steele has written a solid draft of the essay on Origins and Prehistory, and I've got a good start on Celtic Saints. I'm looking for some other people who can write engagingly on the Welsh Princes and Romans. Ideas?

'Places' content: Rhys Mwyn has delivered a great draft on Din Lligwy, and Michael Burkham has submitted an excellent essay, an appreciation of Beaumaris Castle from a veteran soldier's perspective. Rev. Neil Fairlamb, rector of seven churches on the island, promises me a lovely reflection on Penmon and other "thin places." I'm still looking for authors to reflect personally about Bryn Celli Ddu and Barclodiad y Gawres. Suggestions welcome!

Brand identity: We're thinking about a logo and a "strap line" to be used for the website and affiliated Anglesey heritage projects. We're hoping to find something that steers away from older (supposedly dry and boring) ideas of "history" and "heritage" and entices newer, wider audiences to visit our sites. If you've got an idea or a knack for this sort of thing, please don't hesitate to send us your thoughts.

Getting together: As I mentioned in the last update, I'm hoping to schedule a fun and useful event for our burgeoning little community. At the moment, I'm waiting until I have some pages designed and finished, to show you when we get together. More news on that soon.

Spring is coming! And so is the new Anglesey Heritage website. Thanks for staying involved in the project.

Warm regards,
Susanne

Susanne Skubik Intriligator
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Appendix 20: Tell your island's history

Tell your island's history

Be part of a new community heritage website

Do you have a story to tell about Anglesey?

Do you feel a special connection to Bryn Celli Ddu, Barclodiad y Gawres, Amlwch, or Beaumaris Castle? Do you wish more people shared your appreciation for the Neolithic Era, the Welsh Princes, or Llangefni in the 1950s?

If you're a heritage enthusiast with an affinity for Anglesey – or a budding writer/journalist or photographer – then Menter Mon wants to hear from you.

In partnership with CADW and the county council, the island's enterprise agency is developing (and soon launching) a new bilingual website that aims to draw in visitors by showing off our ancient sites, telling their stories in compelling new ways, and creating a community conversation around them.

Menter Mon is looking to create a team of:

1. **Contributors:** people who can write engagingly, in either Welsh or English, about their connection to the island's past – personal or family histories, opinion essays, historical accounts, poetry.
2. **Curators:** community members who (with a little training) will help us to create or find great content, monitor comments, host competitions, pose questions, link to other sites, or edit submissions.
3. **Photographers and videographers:** If you've got excellent images that show Anglesey's heritage sites in their best light, please get in touch.

Help write the future of Anglesey's past.

Register your interest by sending an email to: heritage@mentermon.com

Appendix 21: Dwynwen Draft 1



Dwynwen:

HERMIT,

HEALER,

HERO?

Once upon a time -- around the year 400, actually -- a princess was born. According to the legends, Princess Dwynwen grew up to be, by all accounts, the most beautiful and spirited of the 24 daughters of King Brychan Brycheiniog, founder of a medieval kingdom in what is today the Brecon Beacons of South Wales.

Powerful, wealthy and stunning, Dwynwen lived a charmed life, until she fell in love with . . . (ominous music here) . . . the wrong man. You see, as is the case with princesses throughout history, Dwynwen's father had planned to marry her off in a political deal, to gain power or status by affiliation with another kingdom. But Dwynwen objected. She confronted her father and begged him for mercy, for her heart belonged to Maelon, a local man, who (as we shall see) was no prince.

Brychan Brycheiniog rejected his daughter's pleas and cast her out. Maelon heard of the quarrel and rushed to Dwynwen's side. Instead of comforting her, though, he attacked her, and according to some scholars, he raped her.

Devastated, Dwynwen fled to the woods, fell to her knees, and begged God for help. She cried herself to sleep. In Dwynwen's dream, so the story goes, an angel appeared to her, carrying a sweet potion. Still asleep, she drank the potion, which magically turned Maelon into a block of ice.



Upon awaking, Dwynwen was filled with compassion for Maelon, despite his crime, and she prayed to God to reverse the curse.



According to the legend, God then granted Dwynwen her three ardent wishes: to thaw Maelon, to keep Dwynwen herself from ever marrying, and to safeguard the fates of true lovers all through time.

As a mark of her gratitude, Dwynwen devoted the rest of her life to God. She travelled the length of Wales, finally settling on a tiny island off the coast of Anglesey. With her hands she gathered stones and built a church, on an

outcropping facing the sea. The island is now known as Llandwyn (“the parish of Dwynwen”).

A small village grew up around the church, where Dwynwen prayed and taught until old age. She also studied the local plants and herbal healing traditions, and soon people came to believe that Dwynwen had special healing powers. Her reputation spread, and people from across the land travelled to meet her, to pray with her, and to be healed. Ever since then, she’s been known as Santes (or “saint”) Dwynwen, and the Welsh celebrate her feast day on 25th January, known as the Welsh version of Valentine’s Day.

Across the centuries that followed her, people still believed in the power of Dwynwen’s island. Around 1380, the poet Dafydd ap Gwilym visited. He later wrote about how he prayed to Dwynwen, requesting her help in winning his love, a married woman!

Many people still believe that Dwynwen’s well, still there on the island, can determine the fate of lovers. They say a sacred fish swims there, whose movements, when properly interpreted, can even predict the future. And if the well water boils during your visit, then you’re *guaranteed* to find love and good luck!

Nearly 1700 years later, Llanwyn Island remains a powerfully spiritual place. Surrounded by the Irish Sea on three sides, it’s pristine, mostly green and rocky, unpopulated, featuring only a small lighthouse and the remains of Dwynwen’s modest church. There are no roads, no other permanent structures, just footpaths and the sound of crashing waves.

So if you visit today, walking a half mile toward the island along stunning Newborough Beach, you’ll encounter the place almost exactly as Dwynwen did, all those years ago. And then you’ll know, in your bones, just how she did it, how the incomparable beauty of this place gave Dwynwen the strength she needed to move on, to turn heartbreak into healing.



Appendix 22: GAT email

Neil Johnstone

To: Skubik123@gmail.com

No Subject

31 August 2012 15:57

[Hide Details](#)

[Inbox - Google](#)

this is commentary on Kingdom of Gwynedd from GAT

Neil<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

The first three questions are trick questions in that none are true in their full sense, but all are partly true. The first paragraph explains the language issue to some extent, but Old Welsh refers to the Welsh of Taliesin and Aneurin of the 6th century, by which time it is unlikely to have been the common language of all Britain – certainly not Scotland where the Pictish language had developed. The text also suggests large-scale movements of people from east to west, whereas genetic studies suggest little movement of people, but rather a greater genetic mix, with the implication of a language change, but not a population change.

The potted historical biographies are ok as far as they go, but little archaeology in there at present.

Andrew.

Appendix 23: 4 July email to Iwan Huws

4 July email to Iwan Huws (Head of Tourism, Marketing & Maritime Services at the Isle of Anglesey County Council.), Micheal Thomas (tourism/marketing officer) and Neil Johnstone (Menter Mon heritage officer)

Dear Iwan, Mike, and Neil,

Following on from today's meeting, I'd like to set up a time when we can discuss and resolve the question of a logo for Anglesey Heritage. Because the website is going "live" soon -- and the Tours & Trails brochure is going to print ASAP -- the matter is becoming urgent.

My perspective:

1. Anglesey Heritage is a sub-brand of Anglesey Tourism. As such its logo should be visually related to the logo of the larger brand. Right now, as far as I can see, the logo of the larger brand is just the special Anglesey typeface/font. (If there are changes afoot, we can't wait for them.)
2. I am happy to incorporate that font/typeface into the website logo. (I would have done so in the prototypes I sent, but I don't have access to that special font.) There would then be a strong visual connection between the smaller brand and the larger.
3. Anglesey Heritage (my name for Mona Antiqua) is a multi-project initiative. It needs a logo to connect the projects together -- website, interpretation panels, brochures, event advertising, etc. So that someone looking at a panel at Parys Mountain knows to "follow the story" on the website.
4. It needs a name that is a) not Mona Antiqua (meaningless to anyone not already familiar with Anglesey history), b) avoids "history" and "heritage" with their negative connotations, c) is intriguing and engaging.
5. "Anglesey: A Bridge Through Time" achieves all those objectives. Adding an image of the Menai Bridge seals the deal and emphasises our unique package.
6. In my opinion, "A Bridge to the Past" makes Anglesey sound like it's IN the past, not current or thriving. "A Bridge Through Time" is more inviting, highlights that our heritage sites come from many different time periods, and has a vaguely sci-fi feel, which is intriguing.

The website is an important, innovative project. It deserves a name and a logo that people can understand and remember. It shouldn't suffer because others have muddied the waters.

Can we set aside a time to discuss it, please?

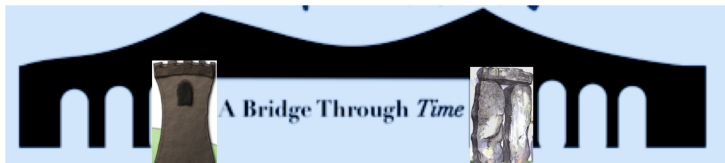
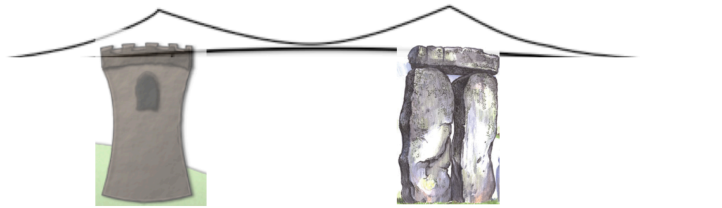
It needs to happen in the next week. I'm free tomorrow, Thursday, 1 to 2.30, Friday 9.30 to 2.30, and Monday 11 to 2.30.

Thank you.

Susanne *(extended signature removed for this appendix)*

Appendix 24: Bridge Through Time Logo Concepts

Anglesey Website Logo Design Evolution, page 1



ANGLESEY



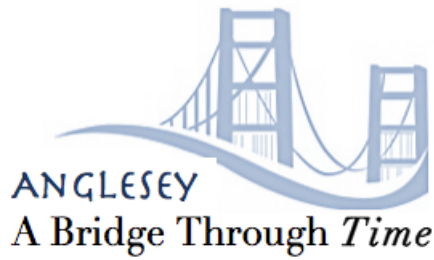
ANGLESEY



ANGLESEY



Anglesey Website Logo Design Evolution, page 2



FINAL LOGO

