

Spatio-Temporality and Digital Tourism in UK Industrial UNESCO World Cultural Heritage Sites

Author: Nathan Alexander Matthews B.A. (Hons.) (Hist.) (Wales)

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Director of Studies: Dr Richard Allen

Second Supervisor: Professor Gillian Youngs

Supervisor: Professor Raymond Howell

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of a Degree of the University of Wales.

ABSTRACT

This thesis applies temporal-spatial theories, particularly liminality, to understand current and potential approaches to digital cultural heritage tourism. Through a comparative case study methodology, it considers the implications of digital virtualities in the context of four industrial World Cultural Heritage Sites, namely the Blaenavon Industrial Landscape, the Cornwall and West Devon Mining Landscape, the Derwent Valley Mills and the Ironbridge Gorge.

Utilising qualitative interviews, content analysis, survey data and a virtual ethnography, the study examines the use of digital technologies from the perspective of World Heritage Site managers and their audiences. It considers the role of the digital as a virtual space in which the relationship between these elements may be developed, re-evaluated and redefined. Moreover, it contemplates the ways in which the use of digital technology impacts on people's relationship with the past and how heritage is experienced by stakeholders. To this end, the research forms part of an emerging literature that views the web as a participatory, virtual space in which multiple activities associated with heritage can be undertaken.

The research findings suggest that there is a demand for liminoid experiences in cultural heritage tourism. Digital tools can be used to facilitate this demand, particularly in cases where the actual is absent. Digital technology allows the experiential, liminoid cultural heritage product to be experienced and participated in, in real time, by geo-spatially dispersed audiences. The results of this research indicate that traditional paradigms of audience engagement endure and the full potential of digital possibilities is yet to be recognised fully by industrial WHSs. The audience currently has limited expectations in this regard and, with some exceptions, use the technologies passively. There are nonetheless substantial opportunities for WHSs to transform their practices to achieve their management objectives and enhance the visitor experience using digital technology.

DECLARATIONS AND STATEMENTS

This thesis is the result of the candidate's own investigation, except where otherwise stated.

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TABLE OF ABBREVIATIONS

The following abbreviations and acronyms are used within this thesis.

3G/4G	3 rd or 4 th Generation (of mobile telecommunications technology)
App	Application
AR	Augmented Reality
BECTA	British Educational Communications and Technology Agency
BILWHS	Blaenavon Industrial Landscape World Heritage Site
C&WDMLWHS	Cornwall and West Devon Mining Landscape World Heritage Site
CEMAS	Centre of Excellence in Mobile Applications and Services
Cornish Mining WHS / CMWHS	Cornwall and West Devon Mining Landscape World Heritage Site
CRMD	Customer Relationship Management Database
DCMS	Department of Culture, Media and Sport
DMIS	Destination Management Information Systems
DMO	Destination Management Organisation
DTTT	Digital Tourism Think Tank
DVMWHS	Derwent Valley Mills World Heritage Site
HLF	Heritage Lottery Fund
ICOMOS	International Committee on Monuments and Sites
ICT	Information and Communication Technology
IGMT	Ironbridge Gorge Museums Trust
ITU	International Telecommunications Union
JISC	Joint Information Systems Committee
KESS	Knowledge Economy Skill Scholarships
LAWHF	Local Authorities World Heritage Forum
OECD	Organisation for Economic Co-operation and Development
OUV	Outstanding Universal Value
PDA	Personal Digital Assistant
QR Code	Quick Response Code
RCAHMW	Royal Commission on the Ancient and Historical Monuments of Wales
SRS	Shared Resource Services
T&WC	Telford and Wrekin Council
TCBC	Torfaen County Borough Council
The Web	World Wide Web
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USP	Unique Selling Point
VR	Virtual Reality
WAG	Welsh Assembly Government
WG	Welsh Government
WHS	World Heritage Site
Wi-Fi	Wireless Fidelity
WWW	World Wide Web

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PREFACE

During the eighteenth century, great social and economic changes took place across Great Britain as innovation and enterprise helped foster the so-called ‘industrial revolution’. New towns and settlements were brought into being as a migrant population sought work in the country’s emerging and flourishing industries. The economic base of Britain changed considerably during the eighteenth and nineteenth centuries and profound social, cultural and political consequences were felt in the industrial regions, with lasting implications for the wider world (Hudson 1992, pp.237-238).

The landscape of south Wales was rapidly changing at the end of the eighteenth century as a consequence of industrialisation. The new manufactories were arousing the curiosity of people all over the country. Archdeacon William Coxe and Sir Richard Colt Hoare, who visited Blaenavon¹ in 1798, were two of Blaenavon’s earliest tourists. Before visiting, they knew very little of the impressive sights that they would encounter in the newly established iron-making district. Both men shared their experiences with the literate world through *An Historical Tour in Monmouthshire*, published in 1801. Sir Richard Colt Hoare was a gifted artist and painted watercolours of the area, illustrating the ironworks and its surroundings, whereas Coxe recorded his adventures through the written word. Coxe said of the newly established Blaenavon ironworks:

In the course of my expeditions I three times visited the iron works of Blaenavon, recently established in the vicinity of Abergavenny, which form a new and interesting object in the tour of Monmouthshire... At some distance, the works have the appearance of a small town, surrounded with heaps of ore, coal and limestone, and enlivened with all the bustle and activity of an opulent and increasing establishment (Coxe 1801, p.227)

¹ ‘Blaenavon’ has been spelt in its anglicised form throughout this thesis, as opposed to the Welsh spelling ‘Blaenafon’, because the official inscription on the UNESCO World Heritage List uses the English spelling. Furthermore, Torfaen County Borough Council use the English version in its marketing and presentation, and, although there were exceptions, the anglicised form was used predominantly in official documents by the iron and coal company, local government and central government throughout the nineteenth and twentieth centuries.

George Smith Kenrick, Ironmaster of the nearby Varteg Ironworks, remarked in 1841 that the Blaenavon area supported a population that 'has been called into exertion by the establishment of iron-works in that barren inhospitable region, where previously there was scarcely subsistence for a shepherd and his woolly charge' (Kenrick 1841, p.373).

The physical spaces in which these industrial centres were formed were undergoing a profound change of purpose, making a transition from an agricultural to an industrial economic base. The many contemporaries who remarked on these changes were witnessing significant temporal-spatial change and its impacts on the landscape and society (King and Timmins 2001, pp.10-20). Indeed, Thomas Carlyle, during a visit to Merthyr Tydfil in south Wales in 1850, remarked that, in century since the iron industry had been established in the district, the 'stagnant and silent mountain hamlet' had been transformed into a centre of industry and noted the impact on its people:

Such a set of unguided, hard-worked, fierce and miserable-looking sons of Adam I never saw before. Ah me! It is like a vision of hell, and will never leave me, that of these poor creatures broiling all in sweat and dirt amid their furnaces, pits, and rolling mills (Carlyle 1850 as quoted in the Evening Express, 3 Sep 1892).

These centres of industry underwent further transitions throughout the nineteenth and twentieth centuries as economic change resulted in the loss or reduction of these once great industries. The meanings associated with those physical spaces changed accordingly, as industrial landscapes and towns once bustling with activity became, in-part, derelict, obsolete or depressed. The sights and sounds of the nineteenth century industries have long since departed these towns but a heritage tourism industry has emerged in order to exploit the legacy of an industrial past by capturing the imagination of contemporary audiences. Hundreds of thousands of visitors each year, now flock to industrial heritage sites, including Blaenavon, in order to see the archaeology, historic buildings and interpretation of these

former industrial sites. Representations of the past are being used to create a visitor experience and to raise awareness of the importance of these heritage sites.

The mills, mines and forges of nineteenth century industry may now stand as dormant reminders of the British industrial revolution but during the late twentieth century another period of significant technological, economic and social change took place, with the massive increase in the production, dissemination and use of Information Communication Technologies (ICTs). This rapid growth and development, which took place between the 1970s and the 2000s, may also be considered revolutionary (Castells 2010, p.29). Castells (2010) notes that the 'information technology revolution' is 'at least as major an historical event as was the eighteenth-century industrial revolution, inducing a pattern of discontinuity in the material basis of the economy, society and culture' (p.29). Castells observes that the industrial revolution was relatively slow in its spread throughout the world, whereas the 'information revolution' has 'spread throughout the globe with lightning speed in less than two decades' (p.32). He remarks on the pervasiveness of ICTs 'throughout the whole realm of human activity' (p.5).

The so-called 'information revolution' has implications on not only how people interpret the present, manage daily activities and plan for the future, it also has the potential to influence how people view the past and how cultural tourists perceive and engage with heritage sites. The increasingly pervasive elements of ICTs mean that visitors to industrial WHSs will have a very different experience compared with the early tourists, such as Archdeacon William Coxe and Richard Colt Hoare, who witnessed these industrial sites over two hundred years ago.

In modern times, the potential visitor has 'the world at their fingertips' and can find out a wealth of information before a visit, through 'remote access', imagery, temporal-spatial representations, interpretation, and interactions. Furthermore, transactions, arrangements and queries may be made in advance of a visit. During a visit, an array of digital opportunities

and interactive interpretations may be available, offering a variety of temporal-spatial experiences for the user. The increasingly ubiquitous use of digital technology and social media can allow the visitor to instantly share their experiences with the world at the click of a button, posting digital photographs or videos, leaving feedback, personal interpretations, comments, queries or recommendations. The relationship with a heritage site may also be maintained beyond the temporal-spatial constraint of a visit, as people may seek further information about the site, its history and its visitor opportunities or to maintain contact with visitor attractions and people. Such opportunities would have been unimaginable for Coxe and Hoare at the end of the eighteenth century and illustrate just some of the ways in which the cultural tourism experience has been affected by the increased use of ICTs by cultural tourism managers and their audiences.

The application of ICTs within the sector raises numerous issues, including how we view and represent heritage; how we learn about it; how we engage with the legacy of the previous times; how we participate as stakeholders of World Heritage and how we plan and experience tourism activities in heritage sites. This thesis explores these implications on World Heritage Site managers and their stakeholders.

1 INTRODUCTION

1.1 OVERVIEW OF CHAPTER

The advances in digital technology in recent decades have resulted in significant implications for the global economy and society as, since the early 1990s, the world has witnessed a substantial increase in the production and dissemination of Information Communication Technologies (ICTs) (Castells 2010, p.5). In 2013 an estimated 2.4 billion people, nearly 39% of the world's population, had access to the Internet (ITU 2013, p.2), representing more than a fivefold increase since the turn of the century (Leeuw and Leeuw 2012, pp.111-112). Businesses and organisations have had to transform and adapt to meet the demands of the 'Information Age' as an international online commercial environment has been created where products and services of all kinds can be traded with reduced geo-spatial constraint (Youngs 2007, pp.50-51). The tourism and heritage industries are among the many businesses and organisations that have attempted to evolve to exploit the opportunities and meet the challenges of the expansion of the Internet and the dissemination of ICTs throughout society (Minghetti and Buhalis 2010, p.267; Cheong 1995, p.417; Buhalis 1998, p.412).

This research, carried out in consultation with the Blaenavon Industrial Landscape World Heritage Site in south Wales, provides an in-depth examination of the practice and impacts of digital tourism in four industrial UNESCO World Cultural Heritage Sites. It attempts to further understanding of digital strategies by extending and developing temporal-spatial theories, particularly liminality, into the field of digital cultural heritage tourism. The research examines digital tourism in the context of industrial WHSs and evaluates its transformative nature. Furthermore, the currently under-theorised elements of 'supply' and 'demand' within digital cultural heritage tourism (Minghetti and Buhalis 2010 p.268) are

examined and applied to better understand the relationship between WHS managers, ICTs and the stakeholders of cultural heritage tourism.

The study focuses on the Blaenavon Industrial Landscape World Heritage Site and makes comparisons with the Ironbridge Gorge, the Derwent Valley Mills and the Cornwall and West Devon Mining Landscape. This introductory chapter provides the context and rationale for the research, offers a detailed explanation and working definition of ‘digital tourism’ in relation to cultural heritage sites and introduces and identifies the key themes, concepts and issues that will be explored in greater detail throughout the thesis. The research questions are introduced and an overview of the content and organisation of this thesis is provided.

1.2 CONTEXT OF THE RESEARCH

This thesis was funded through a Knowledge Economy Skills Scholarship (KESS) and necessitated that applied research be carried out in collaboration with a project partner. In this study, the project partners were SRS Business Solutions Ltd., a data-storage company in Blaenavon, south Wales; and Torfaen County Borough Council’s Economy and Enterprise service area, which has responsibilities in co-ordinating the management of the Blaenavon Industrial Landscape WHS. The parameters of the project, the focus of the research and the research questions were therefore set and agreed through discussions between the researcher, the representatives of the partner organisation and academic supervisors. This ensured that the research was co-designed to answer a ‘real world’ challenge facing the partner organisation, whilst also meeting academic demands to further knowledge about the potential of digital tourism and heritage. In order to understand the requirements of the partner organisation, it is first necessary to explain World Heritage Site status and how the prestigious accolade is currently being used in Blaenavon.

1.2.1 World Heritage Site Status

World Heritage Sites are inscribed by the United Nations Educational Scientific & Cultural Organisation (UNESCO) under the Convention Concerning the Protection of the World Cultural and Natural Heritage 1972. Since 1978, natural, cultural and mixed sites of ‘outstanding universal value’ (OUV) from across the globe have been inscribed on the World Heritage List, which now contains over 1000 properties (Leask 2006, p.11). The World Heritage List includes some of the world’s most famous heritage assets such as the Taj Mahal in Agra; the Pyramid Fields from Giza to Dahshur; and Stonehenge, but also includes more notorious sites such as Auschwitz-Birkenau in Poland. WHSs should be managed in accordance with the Operational Guidelines Concerning the Implementation of the World Heritage Convention through the application of a specific, and regularly reviewed, WHS Management Plan (Leask 2006, p.10). As part of this, they are obliged by UNESCO to protect, conserve, present and transmit their globally significant heritage to the world (UNESCO 1972, article 4).

The Blaenavon Industrial Landscape was inscribed as a UNESCO World Cultural Heritage Site in December 2000 in recognition of its globally significant industrial legacy. In the years that have followed, an holistic regeneration scheme has been undertaken by the Blaenavon WHS Partnership, co-ordinated by Torfaen County Borough Council, in order to exploit the economic benefits of the prestigious accolade and the site’s OUV. An extensive, multi-million-pound programme of conservation and urban renewal has been implemented in an attempt to improve the local environment and to change perceptions of post-industrial space. In order to sustain these developments, investment has been made into the marketing and promotion of the WHS as a visitor destination through both traditional and digital media (Blaenavon WHS Partnership 2012).

Regional regeneration strategies have noted the difficulties in achieving effective marketing of the heritage of south Wales and claim that the profile of the Heads of the Valleys area of

south Wales suffers due to negative stereotypes related to the area's post-industrial decline (Welsh Assembly Government 2006, p.12). Strategies note that despite the international prestige of Blaenavon's WHS status, the levels of awareness of the tourism opportunities within south east Wales, including the WHS, remain low among potential visitors (Welsh Assembly Government 2006, p.12). The need to change perceptions of post-industrial Wales through positive imagery has been strategically identified in order to foster civic pride and greater confidence in communities; therefore, the promotion of industrial heritage and the Welsh historic environment are important objectives of the Welsh Government (Welsh Assembly Government 2003, p.60; National Trust 2010, p.35). In the context of the Blaenavon Industrial Landscape, the WHS brand is being used to redefine the meaning of the post-industrial space, to create a cultural heritage visitor destination in an area not traditionally associated with tourism.

Developments in ICTs in recent years have allowed new ways for tourism products and brands to be presented and promoted on a global scale. The significance of digital media and the World Wide Web in creating an online space for tourism destinations to engage with their audiences was highlighted by the World Tourism Organisation in 1999:

If a destination is not on the Web then it may well be ignored by the millions of people who now have access to the Internet and who expect that every destination will have a comprehensive presence on the Web. The Web is the new destination marketing battleground and if you are not there fighting then you cannot expect to win the battle for tourist dollars (World Tourism Organisation Business Council 1999, p.4).

During the early years of the twenty-first century, policymakers have been increasingly conscious of the potential of the World Wide Web and other digital technologies within the tourism industry. For instance, when the Blaenavon Industrial Landscape was nominated for inclusion on the World Heritage List in 1999, its nomination document and management plan made no reference to the potential use of ICT in the marketing and management of the proposed WHS (Blaenavon Partnership 1999a and 1999b). A growing awareness of the

potential of digital tourism has changed the situation and the revised Blaenavon WHS Management Plan (2012) notes that, since inscription in 2000, ‘Blaenavon has made considerable strides to incorporate digital technology’ (Blaenavon WHS Partnership 2012, p.45). The WHS has moved towards online promotion through setting up a website and social media presence and the site management intends to make further progress in the field of digital heritage tourism (Blaenavon WHS Partnership 2012, pp.58-59). The latest management plan states that:

The potential for increased use of digital technology in relation to the World Heritage Site is enormous and needs to be developed over the plan review period [2011-2016] to protect, present and promote the site as effectively as possible (Blaenavon World Heritage Site Partnership 2012, p.59).

Despite a growing appreciation for the role of ICTs in tourism, no single, coherent digital strategy is currently in place for the Blaenavon WHS. Under the 1972 World Heritage Convention, WHS management bodies are expected to use ‘all appropriate means’ to provide education and information that helps ‘strengthen appreciation and respect’ by people of the World Heritage (UNESCO 1972, article 27). To this end, the Blaenavon WHS management is keen to develop understanding in respect of digital presentation and promotion in order to fully exploit the potential for the technologies in achieving the WHS’s obligations under the World Heritage Convention and its Operational Guidelines.

The research needs of the Blaenavon WHS, coupled with increased academic interest in the field of digital cultural heritage tourism, presented an opportunity for collaborative research. Financial backing from Knowledge Economy Skills Scholarships (KESS), a major European Convergence programme benefitting from European Social Funds (ESF), provided a solution for this challenge. An applied PhD scholarship research project was therefore planned between the South Wales Centre for Historical and Interdisciplinary Research (University of Wales); Shared Resource Services (SRS) Business Solutions Limited; and Torfaen County Borough Council on behalf of the Blaenavon WHS.

A succession of meetings with representatives of the project partners was held in late 2011 and early 2012, through which it was clear that the partner organisation wished for the research to incorporate a comparative understanding of current digital practice in WHSs, to recognise ‘best practice’ in order to inform future strategies and to develop an idiosyncratic analysis of the needs of the WHS and its audience. Simultaneously, a review of current digital strategies and academic literature was undertaken (and continued iteratively throughout the research period – see chapters two and three). Based on a combination of the needs of the partner organisation and the necessity to address gaps within the literature, the following research questions were devised:

1. How and why are industrial World Heritage Site managers using digital technology to present their WHSs?
2. What does the audience of the industrial WHSs expect from digital technology in a cultural heritage tourism context?
3. How and why does the use of digital technology impact on the relationship between industrial WHSs and their audience?

1.2.2 Comparable World Heritage Sites

Due to the applied nature of the research, the findings needed to be transferable to influence the decisions of the Blaenavon WHS Partnership or decision-makers in other WHSs. The selected case studies consisted of industrial sites that are attempting to present, promote, conserve and interpret industrial heritage, particularly in a tourism context. Such sites have experienced a transition in the meaning and purpose of their physical or material space over the timeframe of three centuries. They have moved from predominantly agricultural communities into industrial communities before experiencing deindustrialisation, the negative impacts of industrial decline followed by attempts to redefine this space as a heritage site and to achieve socio-economic regeneration through the use and exploitation of the heritage resource.

The comparable sites were the Derwent Valley Mills, the Cornwall and West Devon Mining Landscape and the Ironbridge Gorge, all UNESCO World Cultural Heritage Sites and areas of industrial heritage. The Derwent Valley Mills WHS and Blaenavon Industrial Landscape were among a number of industrial WHSs identified by Rebanks (2009) as making proactive use WHS status for socio-economic gain, with some degree of success. Ironbridge was also selected as it was the earliest industrial WHS to be inscribed in the United Kingdom. It has a well-established tourism product and makes proactive use of tourism in order to contribute to the local economy. The Cornwall and West Devon Mining Landscape management also includes elements of socio-economic regeneration and offers a range of visitor experiences (Cornwall and West Devon Mining Landscape WHS Partnership 2013). Blaenavon, the Derwent Valley Mills, the Cornwall and West Devon Mining Landscape and Ironbridge also have to work in partnership with multiple stakeholders in order to promote multiple attractions spread over a wide area within their respective WHSs. The full rationale behind the selection of these case studies is elaborated on in chapter four.

1.3 DEFINITIONS

1.3.1 Organisational Culture

The notion of ‘organisational culture’ is one that has relevance to this study. Schein (2010) utilises the concept of culture to understand phenomena and behaviour experienced within social organisations (p.9). For instance, he notes that the cultures within organisations can be identified through its built environment, the social interactions and etiquette between its people, its products, shared values, basic assumptions, learned responses, corporate vision and records (Schein 2010, pp.23-26). Similarly, Martins and Terblanche (2003) define ‘organisational culture’ as ‘the deeply seated (and often subconscious) values and beliefs shared by personnel in an organisation’ (p.65). Moreover, they note that organisational culture ‘offers a shared system of meanings, which forms the basis of communication and mutual understanding’ (Martins and Terblanche 2003, p.65). This culture informs how

individuals behave, interact and understand or approach problems (Martins and Terblanche 2003, pp.65-66). This thesis explores how increased use of digital technologies impacts on the organisational culture of WHS management organisations. Furthermore, it looks at the cultures that are developing online, particularly in the respect of online digital heritage and tourism.

1.3.2 Deconstructing ‘Digital Cultural Heritage Tourism’

The phenomenon of ‘digital cultural heritage tourism’ is explored throughout this thesis. It is essential to define, delineate and explain this phrase to understand its applicability to this study. A number of terms are used throughout this thesis concerning the manifestations of digital technologies within the heritage and tourism industries and, within this section, ‘digital cultural heritage tourism’ is deconstructed as its component parts, viz. ‘cultural heritage’, ‘digital tourism’ and ‘digital heritage’ are defined and their relevance considered. Reference is made to key documents published by internationally recognised cultural and heritage organisations, namely UNESCO and ICOMOS, as well as academic understandings of key concepts.

1.3.2.1 Cultural Heritage

UNESCO states that cultural heritage takes a number of forms, namely tangible cultural heritage and intangible cultural heritage. Within the tangible element, there is ‘movable’ cultural heritage such as paintings, artefacts etc. and ‘immovable’ cultural heritage such as archaeological sites and buildings. Intangible cultural heritage, according to UNESCO, includes traditions, arts and rituals (UNESCO undated [b]).

In 2003, UNESCO passed the Convention for the Safeguarding of Intangible Cultural Heritage in recognition of the need to provide protection for the intangible manifestations of culture. The Convention states that:

The “intangible cultural heritage” means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in

some cases, individuals recognize as part of their cultural heritage. 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 2003a, Article 2.1).

The rise of ICTs provides new opportunities for World Cultural Heritage Sites to articulate their OUV to a global audience. The digital is used as a media through which tangible and intangible cultural heritage can be discussed and presented. As a cultural space, in which social interaction takes place, it too develops a culture of its own and ultimately a heritage. Whilst this thesis examines the type of culture that develops in digital communities concerning the presentation and protection of tangible and intangible heritage, it does not explore the heritage that is created by the digital – namely, the communications and data that is created in a digital-only form.

1.3.2.2 Digital Heritage

‘Digital Heritage’ has been defined in a number of ways. The General Conference of UNESCO, in 2003, approved a Charter on the Preservation of Digital Heritage. The Charter recognised that ‘resources of information and creative expression are increasingly produced, distributed, accessed and maintained in digital form, creating a new legacy – the digital heritage’ (UNESCO 2003b). In terms of scope, the digital heritage was deemed to consist of:

...unique resources of human knowledge and expression. It embraces cultural, educational, scientific and administrative resources, as well as technical, legal, medical and other kinds of information created digitally, or converted into digital form from existing analogue resources. Where resources are “born digital”, there is no other format but the digital object... Digital materials include texts, databases, still and moving images, audio, graphics, software and web pages, among a wide and growing range of formats. They are frequently ephemeral, and require purposeful production, maintenance and management to be retained (UNESCO 2003b, Article 1).

The Charter proposes actions in order to preserve, maintain access to and safeguard this digital heritage. This thesis, however, does not examine this form of digital heritage neither does it consider issues concerning its preservation. Flow Associates (2010), in their mapping of digital heritage in a study for the Heritage Lottery Fund, include very wide definitions of digital heritage. They explicitly state ‘we have not tried to define this [digital heritage] too narrowly, preferring to allow interviewees to convey their own definition’ (Flow Associates 2010, p.3). Among the elements of ‘digital heritage’ discerned by Flow Associates were:

- The development and delivery of digital content and media (delivered online or in other platforms)
- The creation and management of large-scale datasets
- The creation and management of digital surrogates of physical things
- The delivery of existing services online
- The use of technology to enable back-office functions
- The provision of tools for interaction, collaboration and user-generated content
- The usage of technical tools for monitoring and evaluation
- The arrangements for licensing and ownership of digital assets
- The challenges of long-term digital preservation and web archiving
- The emergence of new business models which depend on different technologies and platforms (such as image licensing)

(Above list quoted from Flow Associates 2010, p.4)

To encompass so many areas of digital heritage would prove impractical for this research so it was decided to focus on particular aspects of the phenomenon. ‘Digital Heritage’ in the context of this thesis refers exclusively to the access and presentation of heritage through digital technologies. The definition includes the representation of tangible and intangible cultural heritage, which exists or has its provenance in actuality. Furthermore, it includes the application of digital technologies to promote, present, interpret or engage people with heritage. The thesis is also concerned with the strategic planning, delivery and usage of heritage content through digital media (Flow Associates 2010, pp.3-4). These elements have been focused on because the research has been designed to accommodate the needs of the cultural tourism industry.

1.3.2.3 Cultural Tourism

The ICOMOS International Cultural Tourism Charter defines ‘Cultural Tourism’ as:

...essentially that form of tourism that focuses on the culture, and cultural environments including landscapes of the destination, the values and lifestyles, heritage, visual and performing arts, industries, traditions and leisure pursuits of the local population or host community. It can include attendance at cultural events, visits to museums and heritage places and mixing with local people... [cultural tourism] encompasses all experiences absorbed by the visitor to a place that is beyond their own living environment (ICOMOS 2002, p.22).

An industry has developed to exploit the benefits of cultural heritage through tourism. This cultural heritage tourism industry may be defined as ‘all those who work in, support, facilitate or provide goods and services to domestic and international tourism activities’ associated with cultural heritage (ICOMOS 2002, p.24). In terms of the tourism goods and services, this includes the experiential product of tourism, tourist attractions and visitor facilities, and activities or projects that enhance a visit. This can include heritage ‘interpretation’, which the ICOMOS International Cultural Tourism Charter defines as:

All of the activities, including research, involved in the explanation and presentation of the tangible and intangible values and characteristics of an historic place, object, collection, or activity to the visitor or member of the host community (ICOMOS 2002, p.23).

Reference is also made to the role of the ‘host community’ in terms of cultural tourism. For the purposes of this study, the host or local community is held to be the people who live within or in close proximity to the inscribed boundary of a UNESCO World Cultural Heritage Site. The individuals who live and work within the area are key stakeholders in the cultural tourism industry in the respect that they are involved in the civic governance of the area and its civil society, as well as having to live with and experience the (positive or negative) impacts of cultural heritage tourism.

Within the selected WHSs for this study, management partnerships and co-ordination units have been established to holistically manage WHSs and to present, protect, conserve and transmit the OUV. These partnerships are involved strongly in the cultural heritage tourism industry but also have wider remits concerning the protection and preservation of heritage and ensuring it is transmitted to future generations.

1.3.2.4 Digital Tourism

Digital technologies are being increasingly used within the cultural heritage tourism industry, and indeed the wider tourism industry, as a way of promoting, presenting and interpreting heritage sites. The University of St. Andrew's Computer Human Interaction Research Group has defined digital tourism as 'the digital support of the tourist experience before, during and after the tourist activity' (University of St. Andrew's Computer Human Interaction Research Group, undated). Digital tourism includes all parts of the visitor experience in which an individual interacts, or is exposed to, ICTs relevant to some aspect of a tourist attraction or service. Digital tourism, in practical forms, includes websites, social media, mobile telephony applications and digital interpretation technologies, all of which are designed to inform and add value to the visitor experience or have the potential to bring economic gain to a site or business (Schwarz 2009, pp.7-9).

Digital tourism, in its various forms, can, in addition to providing visitor support, also allow the individual to explore, representationally at least, a four dimensional environment. The space and temporality of the Internet permit the connectivity of space and time and presents the opportunity for individual negotiation of this virtual environment. The meaning and purpose of visits may be individualised and will vary depending on the perspectives and background of the different audiences. This includes, but is not exclusive to, people of different languages, ages, economic backgrounds, education and cultures who may value or view heritage in different ways. The increasingly participatory nature of the web also permits users the opportunity to engage directly with heritage by sharing, discussing and contributing

their own perspectives or content; by offering feedback, criticism or recommendations; or to take part in digital simulations and interpretations of the past. Digital heritage tourism, although representative in some respects, has many elements that involve transactions, interactions, meanings and cultural participation.

1.3.2.5 Digital Cultural Heritage Tourism

Digital Cultural Heritage Tourism, for the purpose of this thesis, is therefore defined as the use of digital technologies to present, promote, or participate within, a cultural heritage site, particularly during the tourist experience or heritage-tourism management context.

1.3.3 Overview of Digital Technologies used in Cultural Heritage Tourism

The technologies through which people can, and could potentially access, digital cultural heritage tourism are many and varied. Whilst not providing an exhaustive list of the various applications and technologies available in the industry as a whole, this section offers an overview of some of the most prevalent and high-profile digital technologies currently being used in the field, including a brief summary of their current uptake and potential. Most of the technologies listed, with the exception of virtual reality, online virtual worlds and Near Field Communication, were in use at one or more of the selected WHSs during the course of the research. The aforementioned technologies, whilst not in use at the WHSs at the time of the study, have potential for the heritage and tourism industries and have therefore been acknowledged below.

1.3.3.1 Virtual Reality

During the 1980s and 1990s interest was aroused by the prospect of ‘virtual reality’ (Cheong 1995, p.417). Virtual reality can be defined as ‘technology that creates the illusion that the user is immersed in a world that exists only inside the computer’ (Beekman 2005, p.580 as quoted in Buhalis et al 2006, p.134). Fully immersive virtual reality simulations could theoretically include exotic beaches with perfect weather or even ‘trips’ to fantasy worlds or past times, allowing the virtual visitor to experience another time or place. The media

excitedly predicted that virtual reality would revolutionise tourism and provide people with the opportunity to engage in simulated sensory environments (Cheong 1995, p.420). Cheong (1995) viewed the new technology as a ‘threat to travel and tourism’ (p.417), suggesting that people may favour convenient virtual trips to distant lands in an environment that would guarantee good weather and safety at a low cost (p.420). He notes the potential for heritage sites in particular to utilise the technology to reduce physical access to vulnerable sites such as parts of the Stonehenge and Avebury WHS (p.421). The widespread use of fully immersive virtual reality simulations (i.e. including body suits, visors) has not yet materialised and it may be some time before such technology will be widely available (Gale 2009, p.128). Nonetheless, the Digital Tourism Think Tank predicts that, with the rise in 3D graphics and the expected increase in virtual reality headsets for the latest generation of games consoles, virtual reality tourism may soon become more widespread (Digital Tourism Think Tank 2014). During the period of this study, however, there was no evidence of any of the selected WHSs making use of virtual reality yet the nature of VR has implications and relevance when considering other manifestations of digital tourism.

1.3.3.2 Online Virtual Worlds

Other forms of digital tourism include ‘real world’ interaction with a device, usually a Personal Computer. Gale (2009) has argued that tourism ‘penetrates the office and the home’ through the medium of the Internet (p.120). He observes that the Internet has created opportunities for virtual tourism and notes the existence of ‘virtual worlds’ (p.128). The popularity of so-called Massively Multiplayer Online Social Games (MMOSGs) suggests that people are willing to spend a considerable number of hours participating in and exploring the virtual worlds of online games (Gale 2009, pp.128-129). At the time of Gale’s study, he observed that the average user of these games spent between twenty and thirty hours a week logged in to these environments (pp.128-129). He argues that people use MMOSGs for play or pleasure and suggests that tourist attractions can be represented using

this interface (p.128). These ‘online worlds’, although less immersive than virtual reality, create digitally-mediated representations that can be explored, and participated in, by users.

1.3.3.3 The World Wide Web (Web 1.0)

The most widespread and accessible form of digital heritage tourism, however, is the use of the World Wide Web and heritage tourism websites. It is important to distinguish the World Wide Web from the Internet. The Internet, as we know it today, originated during the late 1960s as an electronic communication network for the Advanced Research Projects Agency of the United States Defense Department. ARPANET, as it was known, was launched in 1969 (Castells 2010, p.45). In the following decades various other scientific, academic and military networks were launched. These networks were eventually linked by ARPA-INTERNET and INTERNET, during the 1980s which served as ‘networks of networks’ (Castells 2010, p.46). The World Wide Web, which was developed by Sir Tim Berners-Lee in 1989-1990, marked a significant development in the popularisation of the Internet (Berners-Lee 2000, p.26). It allowed for the creation of ‘websites’, linked through hypertext, which could be viewed through a ‘browser’ from a personal computer (Berners-Lee 2000). During the 1990s there was a rapid increase in the number of websites (Berners-Lee 2000, p.65) this coincided with a greater availability of cost-effective, user-friendly ICTs and software produced and distributed by companies such as Microsoft and Apple (Castells 2010, p.43).

The offer of heritage tourism websites varies. Many organisations and businesses simply use the Internet as an online tourist brochure and marketing tool (Schwarz 2009, p.7). The Internet allows people to access a wealth of information from their own homes so tourism websites frequently contain information about attractions, events, accommodation, eateries, walking routes and other types of visitor information in what is essentially a one-way process (Smith 2006, p.67). Websites may include interactive elements, whereby people can contribute feedback, or may utilise forms of online interpretation such as virtual tours,

interactive maps, games or videos; whereas social media websites such as Facebook allow for real-time discussion, participation and the sharing and creation of relevant content.

1.3.3.4 Social Networking Websites (Web 2.0)

Since the early 2000s, an array of social media platforms has been created that provide different ways of allowing communication between people and organisations. These so-called web 2.0 technologies include sites such as Wikipedia, Facebook, Twitter and YouTube. Van Dijck, in her critical history of social media, notes that these innovations have been widely considered participatory and collaborative, increasing people's power to create, connect and communicate (2010, pp.10-11).

As of 2014, Facebook remained the world's largest social media platform, with over 1.15 billion users (Bullas 2014). Almost half of the UK population, some 31.5 million people, had a Facebook profile at the end of 2013 (Rose 2014). Whilst its growth appears to have slowed in recent years, Facebook remains a very important mainstream social media site. Its main demographic is the 25-34 age group, with over a quarter of users falling into this category (Rose 2014). As of 2014, Twitter had approximately 15 million British users and, according to analysts, was experiencing a modest growth rate (Rose 2014).

The ubiquity of social media is increasing, as the development of smartphones with social media applications makes it easy to access such services. Affordable technologies, with access to social media sites being free of charge, for most key features at least, makes them popular ways to communicate. Indeed, people are increasingly using social media technologies in their everyday lives. Pew Internet Research (2013) suggests that some 73% of American adults now use social media. 69% of men use such technologies in comparison to 78% of women. The highest usage is within the youngest adult demographic i.e. 18-29 years, with 90% of this age group having some sort of social media profile. However, well over half of those aged 50-64 years (65%) now use social media, with some 46% of over 65 year olds also connecting with social media. The research found that Facebook was the

dominant platform, with 71% of those interviewed using it, compared with 22% on LinkedIn, 21% on Pinterest, 18% on Twitter and 17% on Instagram (Pew Internet Research Project 2013).

The increased usage of smartphones and mobile Internet means that there is increased flexibility in the time and space in which social media can be engaged with. Pew Internet Research (2013) found that 40% of people use social media websites through their mobile phones, with 67% of 18-29 year olds doing so. The practice was much lower, however, among the older demographics, with 18% of 50-64 years doing so and just 5% of the over 65s. The research also indicated that Facebook usage is more concerned with trust, friendship and relationships than its competitors (Pew Internet Research Project 2013). Such issues are considered throughout this thesis, in the context of digital cultural heritage tourism.

1.3.3.5 Smartphone and Tablet Applications

The prevalence of mobile Internet devices also has an impact on the heritage and tourism sectors. While much of the content may be used by people in preparation of a visit, digital tourism services can now be accessed during the visit, without the need for a traditional Personal Computer. Mobile devices such as smartphones and tablet computers enable people to access the Internet remotely, even during a physical visit to a tourist attraction provided that an infrastructure of mobile Internet networks (3G/4G) or Wi-Fi networks are in effective operation. A range of technologies, including Augmented Reality (AR), Quick Response (QR) codes and Near Field Communication (NFC) tags, are being utilised for heritage and tourism purposes.

Quick Response (QR) Codes

QR codes were developed in 1994 by a company named Denso Wave as a system of tracking inventories in the car manufacturing sector but entered widespread use following the advent of smartphones. The technology is essentially a barcode that is readable by smartphones and QR-readers and serves as a hyperlink to online content such as webpages, email or audio-

visual content. QR codes are being increasingly used in advertising and marketing, including within a heritage and tourism context (Winter 2010, pp.13-23).

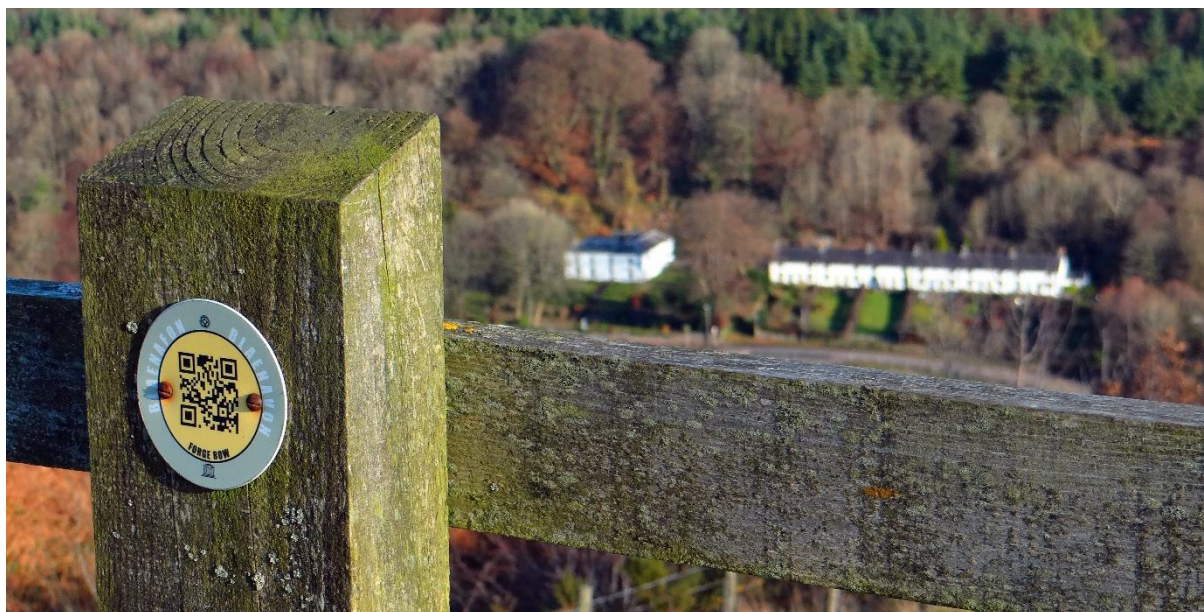


Plate 1.1. A QR code linking to interpretative information about Forge Row, Cwmavon, within the Blaenavon Industrial Landscape World Heritage Site

Augmented Reality (AR)

Cassella (2009) defines ‘augmented reality’ as ‘the interaction of superimposed graphics, audio and other sense enhancements over a real-world environment that is displayed in real-time’. The term ‘augmented reality’ originated in the aerospace industry in 1990 to describe the overlaying of digital graphics over ‘reality’ (Cassella 2009). The use of the technology is, however, increasing and is being used in a variety of contexts, including retail and advertising. Augmented reality can be used through smartphones, electronic glasses such as Google Glass and bespoke screens and displays (Thomas 2014). The increasing availability, popularity and capabilities of these devices has increased the reach and potential for augmented reality. Some applications have been used to overlay information, video and other online content onto real-time representations of places, buildings and even people. It has been used in tourism and hospitality contexts, for example overlaying reviews and information about restaurants and hotels in real-time (Arthur 2010). The potential for augmented reality within the cultural heritage sector has also been recognised, as various

innovations have been utilised to improve visitor experiences, enhance interpretation and diversify the visitor offer (Attila and Edit 2012).

Near Field Communication

Another technological innovation currently being utilised within the heritage tourism sector is Near Field Communication (NFC). NFC is a method of wireless communication between two devices, operating in close proximity (Hendry 2015, p.3). One of the devices is typically a smartphone, which can be used in conjunction with a second device, such as an NFC tag. NFC tags have been incorporated into a variety of items or objects, including information kiosks or advertisements. The smartphone can be ‘tapped’ on the NFC tagged object, which will result in an exchange of data, with information being transmitted onto the smartphone via an application (Hendry 2015, pp.3-4). Once scanned, NFC tags may launch programs or open links to relevant webpages (Pesonen and Horster 2012, p.11). Pesonen and Horster (2012) note that the technology has much potential in a heritage or tourism context, not least because NFC is quicker and more user-friendly than similar innovations (p.12). NFC has already been used for a diverse range of tourism functions, including hotel check-ins, tourism information and transport, as well as for heritage interpretation purposes in museums (Pesonen and Horster 2012, pp.15-16).

1.4 SPATIO-TEMPORALITY, DIGITAL TOURISM AND WORLD CULTURAL HERITAGE SITES

This thesis, through its literature review and methodology places much emphasis on the understanding of digital cultural heritage tourism as a temporal-spatial phenomenon. The approach taken by cultural heritage managers to the new technologies and the responses to their digital strategies by service users can be understood in temporal-spatial terms. The concept of the web as ‘space’ informs the research questions, for instance what forms does online, virtual space take? Who controls this space and for what purpose? Who uses virtual

space and what experiences are they seeking? Temporal-spatial theory raises ontological issues; for instance, does activity within the virtual space of the web impact on the relationship between people and their organisations and institutions?

Cultural heritage tourism is essentially a temporal-spatial industry as heritage sites serve as 'cultural connectors of time and space' (Castells 2001, p.433). The physical or material space of industrial heritage sites has undergone transformation across time. In the case of the Blaenavon WHS, the area made a transition from agriculture to industry during the late eighteenth and nineteenth centuries, before experiencing industrial decline during the twentieth century. More recently the space has undergone further restructuring as local stakeholders have attempted to exploit cultural heritage tourism to 'regenerate' the area (Blaenavon Partnership 1999). The heritage industry effectively involves using representations of the meaning and purpose of the heritage sites' material space, during previous times, to change the identity and perceptions of the post-industrial material space in the present day, while also allowing people to access representative and imaginative spaces associated with the past and their personal, family or national identity (Samuel 1994).

The selected WHSs attempt to represent the space of a previous time. In the case of the industrial WHSs, they try to represent the industrial revolution. The transformation in space can be seen in numerous heritage-led regeneration projects. For instance, the images below illustrate the evolution of the former Ironworks school in the Blaenavon Industrial Landscape from a state of dereliction into a visitor centre for the interpretation of the Blaenavon WHS.

Plate 1.2. Derelict Space – St. Peter’s School
© TCBC



Plate 1.3.



Reuse of Space invoking memory, and forging new meanings and identities through the use of simulacra – Blaenavon World Heritage Centre © TCBC

Plate 1.4.

The space now occupied by the Blaenavon World Heritage Centre has seen a change in meaning from making the transition from school, derelict building to heritage centre. In its latest incarnation the space provides the opportunity to inspire memory, emotion and personal identity thereby creating representative or imaginary spaces within the minds of the people of who visit i.e. prompting recollections and mental representations of previous times and places through memory. It is not just the physical or material space that has changed but also the meanings that it holds for people. Heritage does not just exist within a material space but can also be applied to perceived and imagined spaces within the minds of human beings (Harvey 1990; Smith 2006, pp.44-46). They can be sites to inspire memory and creativity based on what the ‘space’ was at a previous point in time. In this sense, heritage can create intangible spaces. The articulation of World Heritage through the virtual space may allow people to re-evaluate the physical space, in terms of value.

The research focuses on industrial WHSs because they are representative of the changing meaning of space through time. All of the selected WHSs have been recognised internationally as being important and influential sites during the industrial revolution. In the process of industrialisation, the space now occupied by these present-day WHSs was mastered and exploited to bring about economic impact through trade and commerce on a worldwide scale. The sites had global links through industrialisation, human innovation and productivity. Products, knowledge and ideas were sent around the world by ship, rail and human migration. Eventually, for various political, scientific and economic reasons, these centres of the industrial revolution deindustrialised to varying degrees and the purpose and meanings of the material space changed. Negative stereotypes became associated with former industrial sites and local and national economic policies advocated restructuring (Evans 2000, pp.143-177). Much of the built environment in industrial towns was demolished, redeveloped and put to new use. In some areas the former industrial space was not radically redeveloped yet solutions were still sought to revive depressed local economies (Evans 2000, pp.169-171). The rise of industrial heritage during the 1970s and 1980s occurred at the same time as the deindustrialisation of many communities across the United Kingdom. Smith (2006) has noted that some commentators argue that industrial heritage is a concession to deindustrialisation and provides some economic alleviation in depressed communities (p.196). Nevertheless, heritage involves the reuse of the material space and attempts to redefine it through invoking previous times.

1.4.1 Temporal-Spatial Technologies

A number of key inventions throughout history have resulted in the subjective compression of time and space. Contemporaries conceived these changes, brought about by technology, in temporal-spatial terms. For example, in 1838, following the invention of the telegraph, the US Commerce Committee of the House of Representatives, stated that the effects of the telegraph would mean that ‘space will be, to all practical purposes of information,

annihilated' (Vallee 2003, p.2). Similarly, the invention the railways had a profound impact on communication and trade networks. Sydney Smith, a journalist, said of his first rail journey:

Railroad travelling is a delightful improvement of human life. Man is become a bird; he can fly longer and quicker than a Solan goose... Everything is near, everything is immediate – time, distance, and delay are abolished (The Times, 8 June 1842).

The development of the Internet and the World Wide Web can also be viewed as attempts to use technology to reduce the barriers of time and space (Castells 2010). Sir Tim Berners-Lee, who invented the World Wide Web in 1989/90, states that the web was intended to be a 'space' in which 'anything could be linked to anything' (Berners-Lee 2000, p.4) and described it as 'a universal, all-encompassing space' (2000, p.33). The World Wide Web is a space that has been colonised similar to the way in which physical space was mastered and controlled by mankind. Whereas humans created towns, cities and empires spreading across the world, the virtual environment of the Internet and the World Wide Web has been, and is continuing to be, created and occupied by individuals, businesses, organisations and nations through millions of websites. It is pervasive as anybody across the globe with access to an Internet connection can potentially leave a mark on this virtual environment (Berners-Lee 2000, p.36). As with colonisation, people impress their own culture and identity on the newly discovered space. It can be used to create communities, with shared interests; it can be used to obtain information on almost anything and it can be used for trade and commerce, allowing people to buy and sell all sorts of items, products and services through a digital medium. Berners-Lee states that 'the web would not be an isolated tool used by people in their lives or even a mirror of real life: it would be part of the very fabric of the life we all help weave' (2000, p.97). In terms of heritage and tourism, the Web can allow for people to integrate their interests and identity with the diversity and connectivity offered by the Internet.

It is not just present day concerns that are of importance on the World Wide Web. Almost immediately the World Wide Web was used as a means of representationally and imaginatively ‘travelling back’ to the past. The educational and cultural value of the World Wide Web was quickly realised and some of the earliest websites focused on cultural heritage institutions such as museums. Virtual representations of places in distant times, such as Renaissance Rome, were launched and allowed people from all over the world to explore it (Berners-Lee 2000, p.64). This use of the World Wide Web was pleasing to its founder, who stated ‘the use of the web to bring distant people to great resources, and the navigational idiom used to make the “virtual museums”, both caught on and inspired many excellent websites’ (Berners-Lee 2000, p.64). The temporal-spatial nature of digital technology makes it an ideal partner for heritage tourism.

This thesis aspires to extend the application of temporal-spatial theories to further understand the impact of digital heritage tourism in UNESCO WHSs. It explores the forms that these virtual spaces take, how audiences engage with them, what WHS managers expect from digital technologies in a cultural heritage and tourism context, and how the contested nature of virtual space impacts on the experience of the actual and affects the relationship between the management of WHSs and their stakeholders.

1.5 STRUCTURE OF THE THESIS

This thesis is organised into eight chapters. The first four provide a detailed analysis of the nature of the research problem, the socio-economic and political context as well as an extensive literature review and methodology chapter. The second half of the thesis presents the findings of the fieldwork analysis. This section summarises the content and scope of each chapter and how it relates to the overall thesis.

1.5.1 Literature and Theory Review

In addition to being an area of growing strategic importance in a variety of macro and micro-economic contexts, digital economy, is an emerging field of interest within academia. Recent years have witnessed the development of a body of literature in the fields of both digital tourism and digital heritage (Minghetti and Buhalis 2010, p.271; Cameron and Kenderdine 2007; Parry 2010, p.2). Relatively little academic work has analysed the relationship between the supply and demand of digital tourism (Minghetti and Buhalis 2010, p.268) and Cameron and Kenderdine (2007) argue that notable gaps in the literature include the political concept and practice of digital cultural heritage; mobility in relation to the service users of digital cultural heritage; the relationship between cultural heritage institutions and communities through the use of digital technology; and ‘the reshaping of social, cultural, and political power in relation to cultural organisations made possible through communication technologies’ (Cameron and Kenderdine 2007, p.2). The second chapter of this thesis therefore provides a literature review and theoretical chapter to examine the temporal-spatial literature concerning ICTs. It highlights the gaps in respect of heritage tourism and introduces the concept of liminality as an organising theme in digital heritage tourism.

1.5.2 Policy and Strategy Review

The third chapter provides a review of the latest government policy in the fields of digital technology and the Internet, examining issues such as digital inclusion and exclusion. It introduces the strategic context in which WHSs operate and illustrates the external influences, policy and funding challenges that the WHS managers face. WHSs do not exist in isolation and are subject to a range of policies and strategies on various political levels. Digital policies and strategies are being delivered on all these levels. There are synergies between the aims of heritage and digital strategies. Heritage is being used strategically to engage such people with ICTs (and vice-versa), with the aim of achieving social inclusion for disenfranchised people, up-skilling them and allowing them the ability to participate in

the virtual space of the World Wide Web as active citizens. Moreover, the chapter looks at current strategy and perceived good practice beyond the selected WHSs and offers an original framework for looking at the types of policy in a cultural heritage tourism context.

1.5.3 Methodology and Analysis Chapters

In terms of the cultural heritage industry, the virtual, has allowed for the online promotion and presentation of sites, using real-time flows of information and data; it affords heritage tourism managers the ability to communicate directly with its audience and permits the users of heritage and tourism services to publicly express feedback about the visitor experience. The methodology chapter offers an explanation of the approach taken to data collection and analysis. In particular, it examines the need to employ a system to understand the qualities and cultures of digital, virtual space and proposes a number of qualitative methods to do this, also triangulating the research with some quantitative methods such as an online survey.

Based on a content analysis of strategy documents, WHS website content and qualitative interviews with WHS managers, the first analysis chapter examines and theorises the current approach that the industrial WHSs are taking in utilising digital technology in the presentation of their cultural heritage offer. It explores the motivations of site managers and the key influences and challenges that are faced in setting and delivering digital tourism within these WHSs. The second analysis chapter, employs the findings from qualitative interviews with service users of WHSs, an online survey and online ethnography and explores and theorises the expectations of the audience of digital tourism in respect of industrial WHSs. It looks at current engagement with the digital offer as well as considering the future potential.

The creation of virtual spaces such as websites and social media raises questions about the issue of control. In a physical heritage site, the control of exhibitions, interpretation and communications is largely with the site managers. Control of the virtual space, however, may be contested. The audience of heritage, in a virtual or online environment, arguably has

more power in relation to the service providers in that they can publicly express feedback, seek information independently and debate and publish their own interpretations of heritage (Van Dijk 2005, pp.11-13). This feedback and interpretation may conflict with the views and agendas of site managers. WHSs form part of ‘authorised’ heritage. WHSs, especially industrial sites, often have political imperatives behind their management. Therefore, it is possible that tensions could arise among heritage professionals due to the weakening of their power relationship with their service users through virtual space. Therefore, the third analysis chapter, which utilises data derived from an online ethnography, interviews and surveys, looks at the virtual as a contested space in which WHSs and their audiences interact. It looks at the current situation but moreover it looks at the potential for such interactions in the future and looks at ways in which the relationship between the management and stakeholders of WHSs may be transformed over time.

Finally, a conclusion is offered in chapter eight which reaffirms the original contribution to knowledge made by this thesis, provides an overview of the key findings and outlines potential areas for future research in the field.

1.6 CONCLUSION

This research attempts to make a timely contribution to the understanding of digital tourism both in an applied and academic context. This chapter has outlined the context and rationale for the research, highlighted its theoretical focus, introduced the research questions and stated its relevance in an applied context. Furthermore, the chapter has provided an overview of the structure of the thesis, introducing key issues that will be further debated and explored throughout the later chapters.

2 THEORY AND LITERATURE REVIEW

2.1 INTRODUCTION

Digital cultural heritage tourism is a relatively new research area. Its scope is broad and encompasses a range of disciplines. This thesis examines the relationship between the audience and provision of digital tourism in the cultural heritage industry through an examination of existing practice and impacts in UNESCO World Cultural Heritage Sites. The research needs to be cognisant of theoretical developments and academic work being undertaken in relation to the heritage and tourism industries along with an understanding of the theory concerning the meanings and nature of ICTs. It is necessary to take an interdisciplinary approach to the literature review, in order to ground this research in the existing body of academic theory. This chapter provides a detailed review of the main theoretical work undertaken in the relevant fields of digital economy, tourism and heritage. It identifies the main gaps in the literature and outlines the areas in which this thesis makes an original contribution to knowledge.

The 1990s and 2000s witnessed the development of a body of literature in the fields of both digital tourism and digital heritage (Minghetti and Buhalis 2010, p.271; Cameron and Kenderdine 2007; Parry 2010, p.2). Parry (2010) notes that research in the field of digital heritage is problematic as it involves numerous disciplines and debates as well as various evidence and literature sources (p.2). He argues that a study of digital heritage must include not only 'state of the art' research but must look at wider literature to discern long term trends rather than to predict the future development of the industry (2010, pp.2-5). Therefore, early works relevant to the heritage and tourism industries (Hewison 1987; Samuel 1994) have been included in this review in order to aid understanding of the organisational cultures of the industries under discussion within this study.

This literature review covers work carried out in a range of disciplines, including studies on technology and virtualities; tourism and mobilities; heritage and urban regeneration. Unifying themes, common among much of the relevant literature, both implicitly and explicitly are the concepts of time and space. Temporal-spatial theory became a prominent in many disciplines during the late twentieth century and into the twenty-first (Lefebvre 1974; Harvey 1990; Urry and Larsen 2011). Such a theoretical perspective may be employed as a concept to understand the relationship between ICTs, cultural heritage sites and their various stakeholders. This literature review examines the relevance of temporal-spatial theory to this thesis, outlines the strengths and shortcomings within existing theory and proposes an extension to this theory by drawing on theoretical concepts advocated in other disciplines, namely ‘virtuality’ and ‘liminality’.

2.2 INTRODUCTION TO TEMPORAL-SPATIAL THEORIES

2.2.1 Origins of Temporal-Spatial Theory

Information Communication Technologies, such as the Personal Computer, the Internet and the World Wide Web, are relatively recent inventions. Nevertheless, the theories which may be employed to understand them have well-established origins. Time and space have long been concepts discussed within philosophy and the sciences. Aristotle (384 BC – 322 BC) and his followers argued that both time and space were categories used by humanity to name and classify information detected by the five senses (Lefebvre 1974, p.1). The concept of space as intangible or virtual, namely space that exists in essence but not actuality, also has a theological basis (Shields 2003, p.1). For instance, Shields (2003) notes that Thomas Cranmer was put to death in 1556 partly due to his belief in the virtuality of the Eucharist (p.1). The mathematician Descartes (1596-1650) moved away from the Aristotelian philosophy and conceived space as an ‘absolute’, measurable and mathematical construct, that contained ‘all senses and all bodies’ (Lefebvre 1974, p.1).

Immanuel Kant (1724-1804) provided a revised version of the Aristotelian idea of space being a category. Kant went beyond viewing space in an empirical or measurable sense and extended it into intangible areas such as consciousness, viewing it as an ‘ungraspable’ and ‘transcendental’ structure (Lefebvre 1974, p.2). Nevertheless, there was a gradual shift from philosophical to scientific approaches to understanding space and time. According to Lefebvre, ‘mathematicians appropriated space, and time, and made them part of their domain’ (Lefebvre 1974, p.2). Mathematical approaches to space, however, did not adequately encompass both physical and social realities, and during the twentieth century, philosophers attempted to return to the study of the meanings and implications of time and space (Lefebvre 1974, p.2).

2.2.2 Late Twentieth Century Understandings of Time and Space

Lefebvre (1901-1991) made an important contribution to the understanding of time and space in his *La production de l'espace (The Production of Space)* (1974). Lefebvre attempted to link the intangible spaces of thought, imagination and representation to the empirical, measurable ‘real’ space. Although grounded in political philosophy, Lefebvre’s work took a multidisciplinary approach, incorporating science, mathematics, the arts, architecture and the built environment. Lefebvre (1974) argued that we are ‘confronted with by an indefinite multitude of spaces, each one piled upon, or perhaps contained within, the next: geographical, economic, demographic, sociological, ecological, political, commercial, national, continental, global’ (p.8). Despite this, Lefebvre believed that these could be categorised into three broad types of space, namely ‘the experienced’, ‘the perceived’ and ‘the imagined’ (Lefebvre 1974, pp.38-41; Harvey 1990, pp.218-219).

Lefebvre’s writings were influential and academics such as Harvey have incorporated elements of Lefebvre’s work within their own studies, developing the ideas further. Harvey noted that *La production de l'espace* was a ‘magisterial’ work by ‘one of the great French intellectual activists of the twentieth century’ (Harvey 1991, p.425). Other writers on the

theme included Bachelard (1964) who discussed ideas of 'poetic space', namely space that is created through the imagination and memory (Harvey 1990, p.217). Space has also been conceived in geo-political terms as something to be mastered (Agnew and Corbridge 1995). Harvey (1990) argues that space and time are important organising concepts for understanding the world and human existence (p.201). Although the material manifestations of space and time can be quantified, Harvey argues that both concepts are also subjective and constructed by humans (p.203). Space can refer to a material area such as a piece of land but space can also include mental constructions such as imagination, fantasy and fiction (Harvey 1990, p.203). Harvey identified three broad definitions of space: 'material space', including the built environment; 'representations of space', including maps, visual representation and communication; and 'spaces of representation', which includes imaginary space such as fictitious landscapes (pp.218-219).

Harvey argues that throughout history mankind has attempted to conquer space through making efficient use of time (1990, p.205). The development of the Internet and the subsequent invention of the World Wide Web during the late twentieth century further reduced barriers of space and time. Recent decades have witnessed profound changes in human communication. The rapid growth and development of ICTs between the 1970s and the 2000s may be considered revolutionary due to their impact on economic organisation and society (Castells 2010, p.29). Castells (2010) notes that the 'information technology revolution' is 'at least as major an historical event as was the eighteenth-century industrial revolution, inducing a pattern of discontinuity in the material basis of the economy, society and culture' (p.29). Castells observes that the industrial revolution was relatively slow in its spread throughout the world, whereas the 'information revolution' has 'spread throughout the globe with lightning speed in less than two decades' (p.32). He remarks on the pervasiveness of ICTs 'throughout the whole realm of human activity' (p.5).

It can be seen that the World Wide Web, on a fundamental level, facilitates the ‘spaces of representation’, ‘representations of space’ and ‘spaces of imagination’ as articulated by Lefebvre (1974) and Harvey (1990). For instance, the space of the web allows people to represent places or ideas, created through their imagination, into the virtual space of a webpage. The web has a representative role but it goes beyond this and impacts on how material space and human interactions are perceived and experienced. The following sections will elaborate on the role that technology has on our perceptions of time and space and theorises on the ontology of the space that is created through the World Wide Web.

2.2.3 Time-Space Compression and Impacts on Economy and Society

2.2.3.1 Technology and Concepts of Time and Space

Technology has been a major issue of discussion within the temporal-spatial literature since the 1960s. Marshall McLuhan (1964) argues that, across the ages, humankind has attempted to extend their bodies in space (p.3). He notes that with the developments set in train by the discovery of electricity, the significance of temporal-spatial barriers has been reduced (p.3). Academics have looked at technology as a means of controlling or influencing our experiences of time and space. So-called ‘space-time compression’ has been achieved by certain key technologies throughout human history such as the railways, the telegraph, the telephone, aircraft and televisions (Harvey 1990, p.232). The Internet and other ICTs represent a significant development in respect of space-time compression. The Internet raises efficiency, allowing people to communicate and transmit multimedia information, globally, in real-time. The technology reduces the spatial constraints between people and organisations and has implications for business and economic organisation (Youngs 2007, pp.50-51; Castells 2010).

McLuhan (1964), writing in the pre-Internet age of the early 1960s, argued that due to time-space compression the ‘globe is no more than a village’ (p.5) and that the next step in the process of technological development is the ‘technological simulation of consciousness’

(p.3). He argues that this extension will have consequences as ‘any extension... affects the whole physic and social complex’ (1964, p.4) and notes that our ‘extended beings’ may be found within our technology, meaning that the inventions of humanity reflect the identities of the creators (1964, p.6). These were bold claims, especially in McLuhan’s era. It is highly questionable whether there has been a ‘technological simulation of consciousness’ due to the rise of the Internet and the World Wide Web but certainly an increasing number of people are spending their time online for a multitude of purposes (ITU 2011, p.1). There is a relationship between human consciousness, imagination and the online world. The space of the web allows for the linkage of the various forms of space articulated by Lefebvre (1974), Harvey (1990) and others. The online ‘journey’ undertaken by a web-user may reflect the ‘train of thought’ of the imagination, allowing an individual to go from website to website and theme to theme, in a similar way to the mind’s journey, linking disparate themes, memories and ideas. The body does not move corporeally but the mind may ‘travel’ to various spaces.

Technological developments, such as the invention of the World Wide Web, were partly informed through a philosophical ideology of time, space and virtuality. Sir Tim Berners-Lee, the inventor of the World Wide Web, conceived his invention in temporal-spatial terms, describing it as ‘a universal, all-encompassing space’ (2000, p.33) in which ‘anything could be linked to anything’ (2000, p.4). Berners-Lee noted the value of the World Wide Web and the opportunity it presented to ‘bring distant people to great resources’ (2000, p.64) through a digitally mediated space. This includes the exploration of places (i.e. material spaces – Harvey 1990) through time, using the representative space of the World Wide Web (Berners-Lee 2000, p.64).

There has been debate over whether the Internet and the World Wide Web are substantially different from the various communication media and technologies that preceded them (Winston 1998). Technology, art and innovations to entertain have long created virtual

spaces. Shields notes that there has been a ‘history and succession of “virtual worlds”’ going back centuries that ‘make present what is both absent and imaginary’ (e.g. Baroque church interiors, the panorama exhibitions of the nineteenth century and the cinema of the twentieth century) (2003, p.11). The Internet, however, offers a new form of virtual space that is more ‘real’ and participatory than its predecessors. Horrocks notes that the concept of ‘cyberspace’ was coined by William Gibson in 1984 and argues that the definition of ‘cyberspace’ goes beyond science fiction and accompanies developments of post-modern ideas articulated by Harvey and Castells (Horrocks 2000, pp.32-33). Winston (1998), however, was sceptical about the revolutionary nature of the Internet and claimed that:

There is also little to support the idea that the net will become a crucial method for selling goods and services... One of the sillier facets of Information Revolution rhetoric is the belief that technology is urgently required to help people avoid going shopping or travelling on business... we do not need stories to be any more “interactive” than they have been since the dawn of time... why the slow, cluttered and inefficient Internet should be more significant than previous distant buying systems is not clear... Beyond the hype, the Internet was just another network. This is to say its social effects could (and would) be as profound as, for example, those of that far more ubiquitous network, the telephone. As profound... and as unrevolutionary (Winston 1998, pp.335-336).

Winston failed to appreciate the potential of ICTs and the ubiquitous role that they would come to play in society. Winston viewed the Internet merely as a tool, a somewhat unworthy successor to inventions such as the telegraph and the telephone. He failed to recognise that as a technology it had the potential to evolve and become more than what it was initially created to do. Within Winston’s discussion of the Internet he does not employ temporal-spatial theory to explain the essence of virtual reality and the Internet. The Internet must be perceived as a virtual space, defined by Shields (2003) as a space that exists in essence but not actuality if it is to be truly understood (p.1).

Parallels have been made between the Internet and the city (Aurigi 2005, p.4). There is merit in the metaphor as cities develop over time and grow due to the involvement of thousands

of people. People ascribe meanings to the space. Some spaces of a city take over a commercial function, others a spiritual, cultural, political or social role, whereas certain spaces are used for pleasure, recreation or learning. The Internet and the World Wide Web is a dynamic and multipurpose space that is constantly evolving. The web, which started as one man's creation in 1989, has expanded with tremendous speed in the space of two decades. It may be regarded as a 'virtual city' in which millions of individuals have created billions of webpages, constituting virtual spaces that may be ascribed similar purposes and meanings to those found within a city. Access to this space, however, does not necessitate corporeal movement. Instead it requires only the travel of the mind and the minimal effort involved in operating a digital device. The material world has been largely mastered by humanity but the virtual world is something which is potentially infinite and will continue to be contested. Winston was essentially looking at a city in the early stages of its development. He viewed it as a static tool rather than a space to be explored and colonised, featuring many tools, purposes and potentials. To compare the Internet to a mail-order catalogue indicates a misunderstanding of its very nature.

The Internet has spawned further innovation. Inventions, new technologies and new media resources continue to be created within the Internet. For example, emails, blogs, on-demand television catch-up services, social media, webcams, chat-rooms, forums, video streaming services, file sharing and online games represent just some of the inventions that have been introduced onto the Internet since its creation, providing a multiplicity of purposes (Introna 2007, p.314). Indeed, Van Dijck (2013), in her critical study of social media c.2001-2012, notes that the history of new media and social networking websites is one of change and evolution (pp.21-22). New spaces have therefore been created, and continue to be created, that are not only representative, perceived or imagined (Lefebvre 1974, Harvey 1990) but are virtual. Within these virtual spaces real commercial, social, political, communicative and economic actions may be made.

In particular, the rise of social networking websites (Web 2.0) in the 2000s has resulted in increased opportunities for greater collaboration, participation and communication between geographically dispersed people. Van Dijck (2013) notes that the networked and pervasive nature of social media websites, with their community and 'egalitarian' ethos would, theoretically at least, help realise some of the intentions of the World Wide Web pioneers of the 1990s (pp.10-11).

Hypertext allowed information and webpages to be linked but the fibre optic cables, wireless technology and ICTs have allowed people across the globe to connect their daily lives in the 'offline' world to a virtual world. A world, beyond the physical materials that constitute Central Processing Units, Visual Display Units and mobile phones, that is intangible and does not exist in actuality but is nonetheless real in essence and in the impacts and influence that it exerts. Therefore, the virtual space connects 'real' people in one 'real' place to other 'real' people in other 'real' places. It is a space in which 'real' money can be spent by 'real' people to purchase 'real' items that have 'real' value. The virtual is not simply a representative space; it is a real space in which social, cultural, political and economic practices can take place in real time globally (Youngs 2007, pp.50-51). It allows more than the representative and imaginative spaces presented by older media such as cameras, brochures and books.

2.2.3.2 Macro-Economic Impacts of ICT

The impacts of ICTs on the global economy have been a key concern of academic literature. Macro-economic factors create the environment in which the global cultural heritage industry operates. Academics such as Castells (2010), Malone (2004) and Mowshowitz (2002) have examined the global impact of ICTs on society and economic organisation and have indicated that the new technologies have enabled economic decentralisation, cross-national linkages and the strengthening of networks (as cited in Kallinikos 2007, pp.275-276). Castells (2010) argues that the widespread dissemination of ICTs has facilitated a

network society that transcends the boundaries of the traditional nation state, through overcoming the limitations of time and space (p. xviii). Mansell et al (2007) argue that ‘the network form has been heralded as the emerging dominant organisational form’ to replace ‘the hierarchical organisational pyramid’ of the industrial era (p.11).

The socio-economic impacts of ICT have received considerable attention in recent years, with issues such as the so-called global and domestic ‘digital divide’ attracting the interest of academics and policy-makers alike. The term was coined in the 1990s to describe the perceived gap between people with access to ICTs and those without (Compaine 2001, pp. xi-xiv). Debates among academics have questioned the significance of the divide and have argued whether or not it should be closed through government policy intervention or through a laissez-faire approach relying on market forces alone (Shelley et al 2004, p.257; Block 2004). Academics such as Van Dijk (2005) and Livingstone (2007, 2009) have attempted to apply their research into policymaking contexts, in terms of digital inclusion and the implications of young peoples’ usage of the Internet.

Scepticism exists over the transformative nature of ICTs within the economy and society (Mansell et al 2007, p.5; Winston 1998). Kallinikos (2007) urges caution over predicting a transition to the network society, noting that traditional institutions will offer resistance to the change and that established organisations are unlikely to become extinct in the near future (p.284). He observes that research in this area has resulted in contradictory and inconclusive results and calls for more studies on the impact of network structures within organisations and institutions (Kallinikos 2007, p.278). Nevertheless, the increasing use of ICTs throughout the global society is exerting pressure on institutions, businesses and governments to undergo change (Youngs 2007, pp.50-51). The influences behind such change and the extent to which organisations actually ‘transform’ warrants further investigation.

2.2.3.3 *Micro-Economic Impacts of ICT: The Heritage-Tourism Industry*

Buhalis (1998) has noted that, macro-economically, ICTs have had revolutionary impacts on the global economy and argues that on a micro-economic level, businesses and organisations have integrated ICTs into their strategic management (Buhalis 1998, p.409). He concurs with macro-economists that an ‘information society’ and knowledge economy are being created, both of which are being facilitated by the dissemination of increasingly sophisticated and user-friendly ICTs (Buhalis 1998, p.409). Buhalis argues that the significant advances in ICTs are pervasive and therefore all sectors of the economy, including the tourism industry, will feel their impact and need to restructure and adopt accordingly (1998, p.409).

Poon (1988) was among the first academics to link tourism to the development of ICTs and attempted to chart the diffusion of ICTs within the industry (p.547). Subsequent work carried out by Buhalis (1998) examined wider implications and perceived benefits for the use of ICT within the tourism industry. Buhalis observes that ‘information is the lifeblood of the travel industry’ and observes how the networked nature of the web may aid and impact upon the industry (p.411). Representation is a theme that may be discerned within Buhalis’ work. He proposes that the products of the tourism industry are often intangible or transitory and, as such, need to be represented through imagery or descriptions provided through media (Buhalis 1998, p.411). Implicit within his work is that the reduction of temporal-spatial barriers, afforded by the web, allows these representations to be transmitted to disparate people across the globe. These ‘representations of space’ (Harvey 1990), and the ability to quickly gather relevant information and make bookings at a low cost from the comfort of their own homes may influence the decision of a person to visit a site (Buhalis 1998, p.411). The concept of time-space compression as advocated by Harvey (1990) and others is also evident within the work of Urry and Larsen (2011) who argue that tourism, as an industry, has been closely linked with technology since its emergence as a mass pursuit in the

nineteenth century (p.14). Urry and Larsen note that the process of industrialisation resulted in, among other things, the creation of the railways and the development of coal-powered steamships that allowed greater mobility as temporal-spatial barriers became compressed. Such technology allowed for the widespread travel for a large proportion of the population for the first time in history. The invention of the camera, for example, allowed people to capture and share representations of their experiences with friends and family (Urry and Larsen 2011, p.14). Since the 1990s there has been further time-space compression as the Internet and mobile telephony have transformed the way in which we communicate (Urry and Larsen 2011, p.23).

Urry and Larsen's discussions of digital tourism give primacy to the visual and representation. 'Vision', Urry and Larsen argue, is 'central to the tourism experience' (2011, p.155). Images, they note, especially photographs, 'activate both "imaginative mobility" and memory travel' and are therefore 'blocks of space-time' (Urry and Larsen 2011, p.155). The rise of ICTs means that representations of places, in particular times, can be transported across space in a rapid period of time (Urry and Larsen 2011, p.167). Through visual media the potential tourist can see representations of the space or place that they may be considering visiting (Urry and Larsen 2011, pp.2-4). These media inform the imagination and Urry and Larsen suggest that people become tourists in order to 'experience "in reality" the pleasurable dramas they have already experienced in their imagination' (2011, p.51). This places much emphasis on the role that 'spaces of representation' (Harvey 1990) play in determining tourist behaviour. Urry and Larsen (2011) argue 'it is virtually impossible to visit places which people have not travelled to "imaginatively" at some time' (p.116).

Urry and Larsen propose the concept of the 'tourist gaze' to explain tourism activities. They argue that the experience of tourism is informed through the 'tourist gaze'. The 'gaze' is a social and subjective construct that varies from person to person based on individual experience and attitudes (Urry and Larsen 2011, p.1). They maintain that:

People gaze upon the world through a particular filter of ideas, skills, desires and expectations, framed by social class, gender, nationality age and education. Gazing is a performance that orders, shapes and classifies, rather than reflects the world (Urry and Larsen 2011, p.2).

Urry and Larsen (2011) argue that ‘what people see is selective, and it is this focused gaze that is central to people’s appropriation’ (2011, p.111). They note the multimedia and multisensory nature of the tourist gaze and argue that it changes according to time period, the type and nature of society, and social grouping (p.2). Websites through the presentation of positive imagery and content can provide a selected, focused gaze that can portray an idealised landscape or destination.

While these arguments have merit, the concept of the ‘tourist gaze’ is primarily visual and focuses on spaces of imagination and representation. The concept does not adequately do justice to the significance of virtual, digital space within the tourism experience. Urry and Larsen argue that the computer monitor may be viewed as a frame or lens through which a representation of a tourist attraction or site may be viewed (2011, p.113). While this is correct, to a certain extent, it underplays the ‘real’ aspects of the virtual space. Virtual space is not purely a visual or imaginative exercise; online media permits discussion, interaction, transaction and the possibility to bring about change in actuality. The thesis of the ‘tourist gaze’ is important for understanding the tourism industry but it suggests too passive a role for the service user. The latest edition of the book, however, takes into account the potential of Web 2.0 technologies to bring about greater interaction (Urry and Larsen 2011, pp.58-59) but nonetheless the discussion still focuses on control of the visual gaze rather than the full socio-economic and cultural experiences that can take place through a virtual space.

The literature of the digital heritage industry follows a similar pattern to that of the digital tourism industry. Much of the early literature examined the diffusion of ICTs within the heritage sites and museums and highlighted practical uses for such technology within the industry (Dave 2008, p.43; Parry 2010, p.1). Dave (2008) notes that the digital cultural

heritage literature is largely biased in favour of the actual technologies rather than providing conceptualisation of the changes that have impacted upon cultural heritage in consequence of digital technology (p.43). Cameron (2008) claimed that there had long been a lack of conceptualisation and critical discourse in respect of digital heritage (p.171). She notes that the focus of the literature, until the late 2000s, had largely centred on debates concerning 'authenticity', preservation and the impacts of digital technologies on intellectual property laws (Cameron 2008, p.171).

Temporal-spatial theory is also evident within the literature but again, primacy is given to visual or representational elements of space. Benjamin (1936) argued that technologies such as the camera and cinema had the potential to provide access to artwork to disparate people, regardless of their position in space (Malpas 2008, p.13). The technologies meant that cultural heritage was not confined to one particular space and could be experienced, in some form, through the new technologies (Malpas 2008, p.13). Benjamin's work has influenced the research of academics such as Malpas, who have researched the impacts of ICT on the cultural heritage industry. Malpas (2008) accepts that time-space compression has taken place as a consequence of technologies such as the Internet but has argued that accessing heritage through the medium of a computer screen reduces the sense of place that is experienced through a corporeal visit to a cultural heritage site (pp.13-14). Malpas' understanding of temporal-spatial nature of ICTs and the cultural heritage industry views the processes of time and space in a largely representational and visual form.

Greater consideration could be afforded to the 'real' processes that can take place through a virtual space. In reference to the museums sector, Bandelli argues that academics need to look beyond viewing virtual museums as 'just graphic representations of existing spaces' (Bandelli 1999, p.152). Bandelli notes that the experience of the physical space of the museum can be expanded by the virtual, allowing it to fulfil a range of socio-educational functions (1999, pp.148-150). Such principles may also be applied to heritage sites. The

'real' processes associated with heritage can include the invocation of memory, discussion, debate, financial transactions and the creation and articulation of identities. The user is not necessarily simply viewing images of a cultural heritage site as a passive and non-participatory spectator. Malpas acknowledges that technology allows greater engagement with cultural heritage but argues that it alters 'the thing reproduced' (2008, p.19). Yet digital cultural heritage tourism is not simply about reproducing or creating simulacra of physical spaces and sites, it is also about creating new spaces, with new meanings and identities that enhance and add value to the physical site.

Dave (2008) noted the potential for the 'media rich representations to offer passages through time and space that are qualitatively different from what may be possible using traditional media and narratives' (pp.40-41). Despite its title 'Mediating Space, Time and Perspectives', Dave does not make reference to the wider literature concerning the nature of time, space, virtuality and their relationship to ICTs. The discussion made of space, confines it a representative and largely visual space. Similarly, Champion (2008) argues that 'virtual heritage' is 'a visualisation or recreation of culture' (p.187). He argues that the practice is visual as digital heritage projects involve attempts to represent the past using photographic material, animation or modelling (Champion 2008, p.187).

Interestingly, Dave (2008) notes that the temporal-spatial nature of ICTs challenges existing forms of interpretation. He argues that the first uses of digital media within the cultural heritage industry presented the interpretation of heritage in a linear form, as articulated by the traditional media and observes that gradually, virtual heritage has moved towards a non-linear approach, allowing multiple ways to enjoy and explore content (Dave 2008, p.44). This suggests that virtual space can grow and that individual negotiation may take place within this spatial environment at the discretion of the service-user. Dave also observes that digital heritage is becoming more interactive and allows for 'Wiki-based' 'shared annotation environments' in which people can comment and share information (Dave 2008, p.45). Yet

this discussion is not approached in temporal-spatial terms. For instance, these interactions represent real-time engagement with heritage and tourism, through a virtual medium.

The idea of extending the space of museums or heritage institutions beyond the physical confines of a building has also been considered. Arvanitis (2005), through research into digital practice in museums, has considered the concept of a 'museum without walls'. He has explored how the utilisation, by museums, of mobile technologies allows the space of the museum to be extended or stretched into the lives of service users at times and places remote from the actual space of the museum (pp.170-171). Whilst the selected WHSs are more complex and multifaceted than a single museum, the idea of virtual spaces being used throughout the heritage site, and not just confined to tourist attractions or heritage institutions, has a strong relevance to this thesis. Such technologies allow heritage interpretations to be presented to audiences in times and spaces outside the boundary of a visitor attraction.

Cultural heritage is not just about material space and tangible sites; it also incorporates intangible spaces such as peoples' memories, stories and emotions associated with the material space of a heritage site across time. The notion of a 'sense of place' is subjective and much intangible heritage comes from peoples' experiences at a heritage site across time. The virtual space of the digital allows for such intangible heritage to be articulated. Digital technologies and corporeal visits are not mutually exclusive and one does not necessarily detract from the other. The sense of place experienced by a physical visit may still be felt yet deeper understandings of the space of the heritage site, across time, may also be explored. Augmented reality, smartphone applications and digital heritage interpretation technologies allow for tourism and heritage services to be accessed in real time during a corporeal visit and theoretically allow individual negotiation, participation and engagement with the material space of the heritage site using virtual space.

For example, Galani et al (2011), in a study of the interpretation of Bronze Age and Neolithic ‘rock art’ in on the landscape of Northumberland, consider the potential of mobile applications to enhance appreciation of the archaeological features. Their findings suggest that mobile digital applications can adopt an ‘experience-centred design’ to form a space for people to reflect on archaeological or historic sites, whilst ensuring intangible, emotive and personal experiences associated with the heritage site are retained and articulated in the interpretation. This suggests that digital technology can be employed in a way that helps create a temporal-spatial experience associated with both tangible and intangible heritage features (Galani et al 2011).

2.2.3.4 *Participatory Digital Spaces*

In recent years, amid the rapid proliferation of social networking websites, there has been an increased conceptualisation offered by scholars in respect of digital heritage (Parry 2007, p.9). In particular, much attention has been shown towards the web as a participatory space in which cultural heritage activities can be undertaken (Parry 2007; Simon 2010; Silberman and Purser 2012; Kidd 2014). The literature, which has been influenced, to an extent, by contributions from media theorists such as Henry Jenkins, has explored the participatory nature of social media, the development and culture of virtual communities, and the impact of participatory practice on the management of cultural organisations and user experiences of heritage (Parry 2007, p.9; Kidd 2014, pp.12-16). This literature is considered in greater detail later in this chapter in a discussion on the changing relationship between the audience and provision of digital cultural heritage tourism.

This thesis contributes to the emerging literature which views the web as a participatory space. However, the current theoretical work concerning the digital cultural heritage tourism industry can be further developed to explain more fully the temporal-spatial complexities presented by ICTs in a cultural heritage context. In particular, the relationship between representative, imaginative, material, participatory and virtual space warrants further

investigation in the context of the digital. The concept of ‘liminality’ has applicability to digital cultural heritage tourism as its central theme of transition and transformation within a time or space ‘betwixt and between’ positions (Turner 1967, pp.93-97) is one that has relevance for the use of new media within the cultural heritage industry. The next section will introduce the theory of liminality and will outline its relevance to the heritage industry and its numerous stakeholders. It will examine the World Wide Web as a liminoid space and outline how digital heritage tourism relates to liminality.

2.3 LIMINALITY

The concept of ‘liminality’ was introduced into academia by the French academic Alfred Van Gennep in 1909 (Thomassen 2009, p.5). Van Gennep used the theory in an anthropological context to study the middle stage in rituals (Thomassen 2009, p.5). Van Gennep observed that ‘the life of an individual in any society is a series of passages from one age to another and from one occupation to another’ (1960 [1909], pp.2-3). He argued that there were three main stages to so-called ‘rites of passage’, namely ‘rites of separation’ (pre-liminal), ‘transition rites’ (the liminal stage) and ‘rites of incorporation’ (post-liminal) (Van Gennep 1960 [1909], p.21).

Van Gennep’s thesis initially received little attention within academia (Thomassen 2009, p.7). The work of the British anthropologist Victor Turner resulted in a reappraisal of the concept of liminality during the 1960s in a paper entitled ‘Betwixt and Between: The Liminal Period in Rites of Passage’ (1967). Through a study of the Ndembu tribe in Zambia, Turner (1967) applied the theory of liminality to rituals he encountered during his anthropological observations. Focusing on the ‘liminal stage’, Turner noted the significance of times spent ‘betwixt and between’ differing social statuses and how this state of being impacted on personality and relationships (Thomassen 2009, p.14). He argued that liminality was the state of ambiguity and transformation encountered by anyone or anything that is ‘betwixt and between’ positions (Turner 1967, pp.93-97).

2.3.1 Applicability of Liminal Theory Beyond Anthropology

Liminality is a concept that was originally applied in respect of rituals but it has since been extended to include other contexts such as psychology, therapy, religion and socio-political theory (Thomassen 2009, pp.18-22). Thomassen (2009) has observed that the theme of liminality has also been explored in studies of arts and leisure (p.15). Turner noted the differences in the manifestations of liminality in different types of society, arguing that, in a modern society, liminal experiences have been largely replaced by 'liminoid moments' (Thomassen 2009, p.15). According to Thomassen (2009), liminoid experiences are different from liminal experiences in the respect that they 'are optional and do not involve a resolution of a personal crisis or a change of status. The liminoid is a break from normality, a playful as-if experience' (p.15). Activities such as drug taking have therefore been conceptualised as liminoid (Thomassen 2009, pp.18-19).

Shields (2003) applied the concept of liminality into his study of virtuality. Shields notes that the mind can be 'tricked' into believing it has been transported to a different time or space and activities such as day dreaming, remembering past events, or utilising media such as books, film or games may facilitate this experience (Shields 2003, p.11). Shields has argued that ICT, through its virtuality, is a liminoid space where people can occupy a 'time out of time' (2003, pp.11-13). Shields argues that virtual spaces are 'liminoid' because they exist outside actuality; participation within these spaces is temporary (2003, p.13). Due to the liminal nature of virtual space, it is flexible and not rigid like material space. It can be manipulated and changed and there are many opportunities for its development (Shields 2003, p.78).

Whereas some liminal experiences may be considered life changing such as marriage ceremonies or other rituals, Shields argues that not all liminal moments are quite so significant. He notes that common liminoid spaces include the World Wide Web, themed holiday destinations and certain religious or national events (Shields 2003, p.13). He argues

that these liminoid experiences are largely commodified and lack the ‘transformative’ impacts that were evidenced in rituals and pilgrimage (Shields 2003, p.13). Using Shields’ extension of what may be considered liminal or liminoid, it is clear that synergy exists between the heritage industry and liminality.

2.3.2 Liminality and Digital Cultural Heritage Tourism

2.3.2.1 Heritage Sites: ‘Betwixt and Between’ Past and Present

The concept of liminality has yet to be extensively applied within the context of the digital cultural heritage tourism industry, although it can be seen that the concept has applicability in a number of respects.² Castells (2001) described museums and heritage sites as ‘cultural connectors of time and space’ (p. 433). Silberman (2008) argued that the past is a virtual reality, which is impossible to accurately recreate in its entirety. He states that the past ‘is an untouchable phantom: a once-lived reality that survives only in fragments and can be experienced only in retrospect’ (p.82). Aspects of the past are represented through heritage. Such sites are liminal in the sense that they exist ‘betwixt and between’ different historical eras. Within many heritage sites, including the Blaenavon Industrial Landscape WHS, modern, living communities continue to occupy the material space. Such sites contain tangible and intangible reminders of the past. Heritage sites therefore exhibit a blend of both past and present.

The need to achieve modern objectives also results in liminal or liminoid manifestations. The management priorities of a heritage site frequently involve economic imperatives and, as a consequence, the economic base of the space undergoes (or at least aims to undergo) a transition from a post-industrial and economically depressed state into a space associated with socio-economic regeneration and cultural tourism. Lash and Urry (1994) bring attention to the changing role of space in British towns to accommodate the restructuring of the

² Parry (2007) notes briefly the potential of virtual reality to provide museums with a ‘liminal’ space ‘between the tangible and the imaginary’ (p.72).

economy and the increased mobility of the population (pp.214-215). They note that ‘in Britain [during the early 1990s] there is scarcely a free-standing town or city that does not have the encouragement of tourism... as one of the central planks of its economic development strategy’ (Lash and Urry 1994, p.215). Cultural tourism was cited as being a significant factor in the regeneration and economic development of Wigan, in consequence of the success of the Wigan Pier Heritage Centre (Lash and Urry 1994, p.215).

Hewison (1987) notes that the rapid development of the cultural heritage industry took place during the 1980s as traditional heavy industries went into decline. Hewison (1987) argues that by the mid-1980s ‘heritage’ had become a manufactured commodity, created and maintained at public and private expense, to be sold in a way which was intended to replace ‘real’ industry (1987, p.9). He argues that industrial heritage provides a symbol of the end of the industrial era and the end of the society and structures which accompanied it (1987, p.20). Industrial heritage reflects the re-use and re-evaluation of material space in the sense that former industrial sites are being ‘repackaged’ into tourist attractions. During this transition stage there may be co-operation or conflict between various stakeholders as they themselves undergo liminal experiences as a result of this wider socio-economic transformation. The material space of the tourist attraction is a changing and contested area.

2.3.2.2 Cultural Tourism as a Liminoid Activity

Pilgrimage has been categorised as a liminal activity as, to the participant, it represents a journey in which spiritual development takes place (Collins-Kreiner 2010, p.445). Such activity could form a major transformative experience in an individual’s life (Shields 2003, p.13). Shields has noted that such liminal processes have become rare but liminoid moments still exist in which people undergo less transformative moments in their lives but still aim to escape ‘everyday’ time and space (2003, p.13). Urry and Larsen argue that social scientists have struggled to adequately theorise the ‘fun, pleasure and entertainment’ experienced or anticipated in tourism (Urry and Larsen 2011, p.7). Tourism can be conceived as liminoid in

the respect that people travel to different places and devote time away from their everyday routines. To the service user, a visit to a heritage site may reflect a desire to enjoy a liminal experience. While many people may engage in tourism simply to disrupt their usual temporal-spatial experience, others may travel in order to gain a deeper, more personal or even transformative experience in a similar way to the pilgrims of old. Heritage sites have resonance with the identities of their audience. People may make a corporeal visit to a heritage site in order to enjoy the liminoid experience of being physically within a ‘themed’ space that is ‘betwixt and between’ different times. They may be engaging on a journey of self-discovery, especially if the heritage site has a personal or familial connection to the individual visitor (Samuel 1994, pp.356-359; Boyd and Timothy 2006, p.58).

Samuel (1994) viewed heritage sites as ‘theatres of memory’. He examines personal or family heritage and argues that the practice of displaying photographs or artefacts connected with an ancestor represents a desire to create an imagined ‘space’ in which a long forgotten person can be made more ‘real’ than just a ‘distant and occasional name’ and to help ‘reaffirm family roots’ (Samuel 1994, p.352). The exploration of imaginative space is an idea prominent in Samuel’s work and reflects themes discussed in earlier works such as those by Harvey, Lefebvre and Bachelard. He argues that the use of old photographs and images of the past may be a way of people creating an ‘Eden’, an ideal representation of the past. He argues that the popularity of family history allows people to create spaces or ‘dreamscapes’ of the past in which their ancestors lived (Samuel 1994, p.356-359). Therefore, the symbols and images presented by the heritage industry, whether as personal, local, national, or world heritage, can help foster personalised meanings and form a liminal or liminoid experience for participants.

2.3.2.3 *‘Life Stages’ and Liminality*

Another key market for cultural heritage is the older demographic. While the more able-bodied of this group are likely to make corporeal visits to a heritage site, older and more frail

people within this age group are less able to visit. Research by Nicholson et al (2012) has conceptualised the frailty of the elderly as being a liminal period “betwixt and between” active living and clinically recognised dying’ (p.1426). Through carrying out a series of interviews with older people, Nicholson et al argue that frail elderly people attempt to deal with this state of ‘persistent liminality’ by attempting to maintain links to their environment (i.e. material or physical space) and by retaining their social networks through communication and friendship (2012, p.1426). Elaborating on this argument, Nicholson et al note that the elderly people encountered within the research, spent their time ‘maintaining and sustaining their place in their immediate world’ (2012, p.1429). The research also found that elderly people actively sought familiarity and stability and valued possessions and aspects of their lives that ‘anchored’ them to their own personal histories and social relationships (2012, p.1429). The inevitable outcome of the liminal period of old age is death but how people deal with the period of liminality varies. Marginalisation of the elderly can be overcome and a relatively good quality of life can be maintained in spite of physical decline.

Nicholson et al (2012) found that elderly people sought escapism from their everyday lives, especially if they lacked physical mobility to engage in corporeal travel. Participants claimed that activities such as reading, being read to, or watching television allowed them to ‘see’ the world again and to get outside the confines of their immediate material environment (p.1429). This suggests a desire to explore ‘liminoid’ spaces of representation and spaces of imagination in order to compensate for the restrictions placed on them by their own bodies in extending themselves into material space (Lefebvre 1974; Harvey 1990; McLuhan 1964). Memory is an imaginative space in which elderly people may occupy much of their time, reflecting upon their lives. Heritage is therefore likely to have resonance with older people if it concerns their personal stories or the history of an area in which they have a connection. Research by Thompson (2000, pp.12-13) indicates that engagement within heritage

activities, such as group work and oral history, have positive social benefits in the lives of the elderly participants.

2.3.2.4 The Web as a Liminoid Space

The above discussion has briefly explored the liminal experiences taking place within a heritage site or within the lives of its various stakeholders. The role that digital technology can play in the experience and practice of cultural heritage tourism warrants serious consideration and the idea of the World Wide Web as a liminoid space should be returned to. Turner (1967) stated that ‘liminality is the realm of primitive hypothesis, where there is a certain freedom to juggle with the factors of existence... there is a promiscuous intermingling of event, experience, and knowledge, with a pedagogic intention’ (p.106). McWhinney and Markos (2003) conceived it as a ‘no-place’ in which an individual is removed from ‘normal’ activity (pp.25-26). Websites are liminal in that they exist outside ‘everyday life’ i.e. they are not present in actuality other than as a collection of digital files on computers and servers. The virtual space created through imagination and textual-visual representation goes beyond a purely representational role and assumes, and becomes part of, social, cultural, political and economic functions. This space is liminal because it is not constant, it is fluid, heterogeneous and open to interpretation and reinvention. Existing hierarchies and power structures may be challenged and renegotiated (Marlin-Bennett and Thornton 2012, p.493; Madge and O’Connor 2005, p.92).

A person’s experience of the web is largely individualised. People generally select the websites and services that they use out of personal taste and interest. Individuals at various points in their lives find themselves ‘betwixt and between’ social statuses and their use of the web may reflect this (Shields 2003, p.45). The virtual space of the World Wide Web has a role for people experiencing liminal moments within their lives. The virtual space of the Internet allows people with shared specific, marginal or even ‘deviant’ interests to meet and communicate to an extent to which they would not be able to in ‘everyday’ life (Shields

2003, p.60). The participation within the virtual space may impact on the liminal or liminoid processes being experienced in the individual's life and help form, shape or change personal perspectives and identities. Madge and O'Connor (2005) applied the concept of liminality to explain the role of the Internet in supporting new mothers i.e. women making the liminal transition from childlessness into motherhood. The research found that the online communities that exist within the virtual space of the Internet provided guidance, companionship and information in a non-judgemental environment, enhancing the self-esteem of the participants and broadening their social networks during a liminal, and often isolated, time in their lives. The web did not replace offline communication, it complemented it and the interactions made online frequently served a different and more specific purpose. Nevertheless, the study found that the Internet provides complementary and 'added dimensions' to peoples' lives (Madge and O'Connor 2005, pp.87-89).

Madge and O'Connor (2005) suggest 'that future studies of cyber/space draw on notions of liminality' in order to 'capture the simultaneity of the actually real and the actually virtual' (p.92). They also call for Internet studies to go beyond generalisation and to apply research to specific contexts, combining both theoretical and empirical evidence (Madge and O'Connor 2005, p.84). Cultural heritage tourism is a broad area and is not a specific liminal experience in the same way that the transition to parenthood may be considered, yet, as has been demonstrated above, the cultural heritage industry does encompass a range of liminal and liminoid factors, both in its provision and among its audience. The application of the World Wide Web in the cultural heritage tourism industry therefore warrants further research.

2.3.3 The Audience and Provision of Digital Cultural Heritage Tourism

Transition and transformation are key themes within the liminality literature and have relevance for the digital cultural heritage industry. This review has highlighted that the web is a liminoid, virtual space (Shields 2003). The forms which this liminoid space takes, the

purposes it fulfils and the impacts it has on the heritage tourism experience need to be understood through an examination of the audience and provision of digital cultural heritage tourism and their interrelationship. Indeed, Minghetti and Buhalis (2010) call for a greater exploration of both the supply and demand of digital tourism (p.268). Numerous questions are raised by this issue, namely, who creates and controls the liminoid spaces and why? Who is using the liminoid space of the web for heritage/tourism purposes and what sort of experiences are these service users looking for? Do the imperatives and objectives of the heritage site management impact on the manifestation of the liminoid space and experiences and is this what the service users and other stakeholders want? This section summarises the coverage made by existing literature to the audience and provision of digital heritage tourism and the ways in which new technologies are impacting on the relationship.

2.3.3.1 Motivation

Smith, Carnegie and Robertson (2006) claim that, with the introduction of compulsory WHS management plans, 'WHSs are now obliged to set themselves the ambitious task of being all things to all people' (p.112). They state that WHSs now have to attempt to be 'beacons of conservation and sustainability; international tourist attractions; educational institutions encouraging local engagement; and catalysts for regeneration and business development' (Smith et al 2006, p.112). Smith et al (2006) argue that to meet these aspirations proves quite a challenge for sites as the objectives tend to conflict with each other (p.112). These themes are indeed common among the WHS management plans of the selected WHSs and therefore such themes are among likely to feature prominently in any web based media sponsored by a WHS. Whilst Buhalis et al (2006) provided some insight into the application of digital technology in single-sited UNESCO WHSs, no substantial work has yet attempted to research and document the challenges that multi-sited, industrial WHSs have in articulating their complex objectives in the digital environment.

In terms of cultural heritage provision, Hewison argues that traditional museums had long been used by the authorities to exercise a degree of social control over the working class, especially when the institutions were sited in industrial areas. The museums were ‘to raise the moral and educational tone of cities’ (1987, p.86). Hazan (2007) notes that the traditional museum can be viewed a non-profit making organisation which serves society through preservation, conservation, research, education and the communication of heritage assets (p.134). The modern day cultural tourism industry heritage is also used to provide education and positive activities for people but heritage sites, especially WHSs, are more complex than museums and face numerous challenges. Industrial heritage sites, along with more basic industrial heritage sites, are frequently associated with post-industrial decline and the heritage site is therefore managed in such a way as to bring about socio-economic regeneration, prescribing a particular role for the articulation and use of selected elements of an area’s history. The web strategies may reflect these aspirations and represent a digital representation of social control through heritage.

The lofty principles of the value of history, the arts and heritage to the cultural wellbeing of society may still be theoretically held among WHSs (UNESCO 1972) but there is a contrast in the way that the heritage industry organises itself in comparison with the traditional functions of museums. Many museums and heritage sites are paid attractions (although the Blaenavon WHS is largely free of charge). Profit and sustainability are important concerns and marketing professionals are employed in order to sell heritage ‘products’ to customers to generate income rather than to just foster love and appreciation of the site. Hewison argued that as a result of such managerial priorities ‘the goods that we are being offered becomes more and more spurious, and the quality of life more and more debased’ (1987, p.129). Moreover, he states that this managerial culture ‘narrows the imagination and cramps the spirit’ (Hewison 1987, p.129). Hewison was writing before the advent of the World Wide Web and the rise of the digital tourist but the culture he identified, with marketing and profit

generation at its heart, is likely to influence any web strategy that a cultural tourism attraction may have. Web-based marketing and promotion rather than the articulation and exploration of the historical values and identities that heritage conveys to its audience, are likely to be the overarching aims of the approaches cultural tourism managers take to their use of the World Wide Web.

In terms of digital heritage, Silberman (2008) notes that ‘stunning historical environments’ have been created but argues that motivation is a key factor in the manifestations of such projects (p.85). He argues that the primary motivation for digital heritage is economic rather than scholarly interest (Silberman 2008, p.85). Economic imperatives, according to Silberman, shape the medium and message and therefore controversial historical themes may be excluded for fear of driving away visitors (2008, p.85). Motivation is a key area to research when considering the provision of digital tourism. Buhalis (1998) examines the reasons why businesses may invest in ICTs and notes that organisations hope to benefit from competitive advantage, lower costs and the opportunity to generate improved perception of their services (Buhalis 1998, p.410). He acknowledges that ICTs do not automatically guarantee success but notes that ‘ignoring and under-utilising ITs could be disastrous as it would create strategic vulnerability and competitive disadvantage’ (Buhalis 1998, p.410). Tourism attractions undoubtedly use the Internet as a promotional tool in the hope of achieving greater visitor numbers and visitor spend but tourism attractions, WHSs in particular, have wider agendas in which digital media can play an important part.

In respect of service-user motivation, Parry (2007) calls for more research to understand the behaviour and motivations of online service users of digital heritage (p.98). Similarly, Kidd (2014) notes the need to develop understandings of how digital heritage is experienced or received by audiences (p.8). Through their study of the users of the Indianapolis Museum of Art Museum website, Filippini Fantoni et al (2012) have identified the need for qualitative approaches to develop insights into motivation and usage. For instance, they observe that

relying on statistical data derived from website analytical software does not provide a sufficient level of understanding into user motivation, experience or satisfaction. They argue that more insightful approaches are required to generate data that will be valuable for heritage organisations in planning and developing digital strategies (Filippini Fantoni et al 2012).

Furthermore, Giaccardi (2012) argues that within the cultural heritage literature ‘little emphasis is given to people’s autonomous engagement with cultural heritage in the context of their own lives and in association with the unique character of the places and communities in which heritage comes to matter.’ (p.2). She adds:

There is little understanding of how emerging technologies are powerfully connecting heritage experience to people’s lives and settings. Even though increasing attention is being paid to the construction of personally and socially meaningful experiences, issues of heritage value and its wider social significance have not yet been placed at the core of the design, management and renewal of heritage experience’ (Giaccardi 2012, p.2).

Such issues are of key relevance in industrial WHSs, where cultural heritage tourism has become an important part of the economy and identity of the host communities. To this end, this study looks at how WHS managers attempt to utilise digital technologies, how its audiences respond to WHS digital strategies and how audiences and interested stakeholders use digital technologies autonomously in their engagement with the WHSs. Such a study allows for the relationship between WHS managers and their audiences to be explored, looking at the virtual space of the web as a mediating space in which this relationship is conducted, sometimes influencing perceptions and interactions with the heritage site in actuality.

2.3.3.2 *Engagement*

This literature review has highlighted numerous ways that people may wish to engage with cultural heritage tourism, corporeally and virtually, in the quest of liminal or liminoid experiences. The propensity of the audience of cultural heritage to engage with the virtual and liminoid digital space to achieve this varies. Much of the digital economy literature has

focused on the so-called 'digital divide', the gap between people with access to ICTs and those without (Van Dijk 2005). Minghetti and Buhalis (2010) note that despite a growing body of work on the so-called 'digital divide' there has been 'no evidence of research on the implications of ICT disparities for the tourism sector' and no work which assesses the 'effects of the digital gap on the relationships between the tourist demand and supply' (p.268). Minghetti and Buhalis attempt to highlight this gap in the literature. They bring attention to the skills and effectiveness of the actors within the tourism industry to utilise ICTs in their personal or business practices and also looks at global and domestic divides and their impacts on tourism (Minghetti and Buhalis 2010, p.278). Minghetti and Buhalis attempt to build on earlier models and frameworks designed to understand the digital divide (Van Dijk 2005, 2006; Wilson 2006, Shade 2002) and adapt such principles for a tourism context (Minghetti and Buhalis 2010, pp.272-273). They emphasise the economic risks of digital exclusion for individuals and businesses alike and call for more comprehensive work to be carried out in this area (Minghetti and Buhalis 2010, pp.278-279).

2.3.3.3 Impacts of ICTs on Tourism Management

Despite the persistence of digital exclusion among some stakeholders, an increasing number of people are engaged with ICTs and, in the context of the heritage industry, this has an impact on the relationship between the management of cultural heritage tourism and its audience. Urry and Larsen (2011) argue that the tourist environment has traditionally been controlled by tourism service providers (p.8). This is a phenomenon which can largely be attributed to the model of tourism popularised by Thomas Cook during the nineteenth century, who encouraged tourists to relinquish the decision-making and organisation of holidays to a travel agent (Urry and Larsen 2011, p.52). The providers of tourism in a heritage environment include heritage experts, planners, historians, archaeologists, tourism and marketing officers, local councils, academics, travel agents, hoteliers, photographers and travel writers (Urry and Larsen 2011, p.18). There is a power relationship between the

service provider and the service user (i.e. the tourist) in which the agency of the latter is reduced. The service provider controls the liminoid experience, especially in packaged holidays, and the objects of the 'tourist gaze' are largely predetermined and set by the service provider (Urry and Larsen 2011, p.8).

The advent of digital heritage tourism means that the traditional model of tourism provision is being challenged. Even during the early 1990s, Poon (1993) observed a shift from standardised packaged holiday to a more flexible and customised experience (Urry and Larsen 2011, pp.52-53). This traditional structure has been challenged by the Internet but, in terms of official websites, the 'gaze' is still largely set by the service providers. The content is still largely a one-way process in that the service user views a website and sees what is presented to them by the service provider. This will then inform what the visitor 'gazes' at during an actual visit thereby keeping control of the tourist experience in the hands of the tourism managers. Yet the interactivity and participation offered through Web 2.0 technologies has the power to change this relationship (Urry and Larsen 2011, pp.58-59). This evolution of the World Wide Web is allowing it to become the type of interactive environment which was intended by its inventor (Berners-Lee 2000). The tourist gaze and experience may be tailor-made using interactive itineraries, and user-generated trails therefore giving tourists more control of the gaze but these services are still created in an environment that is culturally dominated by the tourism managers.

In terms of the inter-relationship between the audience and provision of digital tourism, Buhalis argues that the Internet, the World Wide Web, convergence media and mobile telephony results in greater levels of interaction between tourism operators and the service users (1998, p. 413). He argues that there is a paradigm change in the way that tourism services are marketed, noting that the interactivity between the supply and demand needs to be embraced to reflect the changes of the information age (Buhalis 1998, p.414).

2.3.3.4 Participatory Space and its Impact on Heritage Management

The impacts of participatory digital technologies on authority and control within the heritage sector has been considered within the literature (Parry 2007; Simon 2010; Kidd 2014). Indeed, Giaccardi (2012) observes that, due to the rise of social networking websites in the first decades of the new century, there is a ‘questioning of boundaries between official and unofficial heritage, reshaping and creating new relations between audiences and institutions’ and ‘fostering grassroots understandings and manifestations of heritage practice’ (p.4).

Amid increased opportunities and calls for participation, Simon (2010) explores the potential for cultural institutions to embrace digital and non-digital approaches that will allow them to become spaces of participation ‘where visitors can create, share and connect with each other around content’ (Simon 2010, p.ii-iii). However, Simon acknowledges that in order to realise such an institution, there would need to be a shift in the managerial cultural of organisations to permit greater levels of audience participation (Simon 2010, p.322). This section considers how heritage organisations are responding to this evolving, participatory culture.

In a digital context, participation often takes place through online communities. Waterton (2010) understands online ‘community’ as social groupings that may be conceived in ‘the minds of participants rather than the geographical spaces they occupy’ (p.6). She notes that such communities exist in a virtual space, where relationships and identities may be formed and expressed (p.6). Relevant to this thesis are online communities which form around particular themes or sites associated with heritage, giving people opportunities to discuss, interact and participate.

Valtysson (2010) notes that the participatory and networked nature of ‘new media’ allows for the expression and articulation of a huge variety of cultures through ICTs (p.202). He argues that ‘cultural expression and public opinion will increasingly be mediated through electronic communication networks’ and will ‘alter the way people access and participate in

culture' (Valtysson 2010, p.202). Moreover, Valtysson explores how 'cultural policy makers' can utilise the participatory nature of Web 2.0. technologies to 'create accessible digital cultural public spheres' (p.200). Similarly, Jenkins et al (2013) contend that the ubiquity of digital media necessitates the 'rethinking of social relations' and the 'reimagining of cultural and political participation' (p.3). Indeed, Waterton suggests that the Internet can provide spaces in which marginalised groups and the disenfranchised can find a 'voice' (2010, p.8).

There is a degree of scepticism, however, over the extent to which online spaces currently allow for meaningful participation and democracy in respect of heritage. Issues about the value of virtual space are important in not only how such space is perceived by participants but also how it is viewed and engaged with by the managers of cultural heritage institutions. For instance, Waterton notes that the prevailing culture of the heritage sector considers 'real-world' communities as 'more worthy' than ones that exist virtually (2010, p.8). She concludes that, whilst the Internet 'proposes to be a legitimate space for community self-expression in terms of reclaiming authority and authenticity of voice', the web remains a 'space where conventional and powerful voices, when it comes to heritage issues at least, remain at the forefront' (p.9). This would suggest that there are missed opportunities in terms of online participation and engagement.

Kidd (2014) observes that there is now pressure on museums to be more 'audience-centric' and to involve audiences through engagement, consultation and collaboration (p.41). She notes, however, that despite the potential of the social media technologies, organisations simply use it to obtain 'word-of-mouth publicity' and online marketing (Kidd 2014, p.45). Kidd found little evidence of the technologies being used to increase 'openness, democracy and debate' (2014, p.48). This thesis contributes to the field by exploring the implications of participatory, digital media in the context of multifaceted and complex WHSs. It evaluates

the extent to which virtual spaces or online communities allow for greater stakeholder involvement with World Heritage and its management.

The recent literature also explores the culture that exists within online participatory spaces, and the implications of such culture on the power relationship between cultural organisations and their audiences. Jenkins (2008), in the context of popular culture, explores and demonstrates the influence of ‘grassroots fan communities’ on ‘entrenched institutions’ (p.22). He notes how traditional hierarchies, practices, structures and laws have been challenged and contested, and have resulted in organisations making efforts to ‘connect’ with consumers (Jenkins 2008, p.22). Jenkins employs the concept of the ‘adhocracy’ to understand the organisational culture of virtual communities (2008, p.262). He notes that whilst there is no clear or official hierarchy within such communities, participants assume roles and positions based on their skills or knowledge. As a consequence, positions of leadership and influence can change over time depending on the activities or discussions currently taking place within the community (Jenkins 2008, p.262). Jenkins adds that virtual communities can benefit from the ‘collective intelligence’ of its members. He argues that such communities, with their combined knowledge and experience, can ‘exert a greater aggregate power’ in their relationship with businesses, organisations or institutions (2008 p.27). The impact of this changing power dynamic is considered in this thesis by examining the implications of online communities on the relationship between WHS managers and their stakeholders.

Jenkins et al (2013) observe that there is a culture of reciprocity and goodwill between participating members within online communities (pp.62-64). Indeed, Jenkins (2008) notes that the communities are ‘held together through the mutual production and reciprocal exchange of knowledge’ (Jenkins 2008, p.27). Jenkins et al (2013) view the interactions as being part of a ‘gift economy’, which relies on altruistic and social motivations (p.67). Although there are often no financial benefits for people to contribute to virtual

communities, Jenkins et al (2013) suggest that social incentives may explain this 'altruistic' behaviour. They postulate that the seeking of attention or appreciation within a virtual community or the formation and strengthening of a personal or community identity are among the social motivations of online participation (Jenkins et al 2013, p.74). Similarly, Van Dijck (2013) argues that the pursuit of popularity, capturing attention and developing a good reputation are crucial priorities for individuals, businesses and organisations in utilising social media platforms such as Facebook (p.62). She notes that notions of trust, quality, friendship and respect are key values within the culture of these social networks (Van Dijck 2013, p.62).

Kidd (2014) applies such theories to online participatory practice within the museums sector. Evoking the arguments of Jenkins et al (2013), she suggests that participation in virtual groups associated with museums also exhibits elements of the 'gift economy' as people give freely their time and expertise. This gift economy, she argues, poses challenges to organisations (including those in the heritage sector), who wish to enter these virtual spaces and engage with audiences, as users will question the motivations of institutions in participating in such spaces (Kidd 2014, p.12). She suggests, however, that if museums or cultural institutions are able to successfully enter these participatory, virtual spaces, it may allow them to play a role within a 'cultural public sphere', in which political discussion, debate and discourse may be conducted concerning cultural heritage (Kidd 2014, p.13).

Arguably, the impact of increased use of participatory technologies is being felt within the field of heritage interpretation. Parry (2007), in his history of the use of computers and ICTs within museums, acknowledges that museum curatorship is being challenged as audiences can now use digital media to 'create, collect and interpret, in their own time and space, on their own terms' (p.102). This is a pertinent issue for the heritage industry more generally. Silberman and Purser (2012) argue that the rise of participatory web 2.0 technologies means that the heritage industry will be transformed to the extent that the role of curators will be

reduced to ‘that of facilitators rather than authoritative scripters and arbiters of authenticity’ (p.13). These are somewhat bold predictions and this study considers how far these claims have merit and relevance in the specific context of industrial UNESCO WHSs.

The rise of social media has brought these institutional challenges to the forefront of digital heritage research but academics have long been conscious of the implications digital technologies pose for heritage institutions. Walsh (1997) argued that the traditional role of the museum and its ‘unassailable voice’ of authority would be threatened in the age of the World Wide Web whereby anybody could set themselves up as an authority, despite not necessarily having the appropriate qualifications (Walsh 1997, pp.231-235).

Hazan (2007) has examined the role that digital media plays in changing the power dynamics between the authorised provider of heritage, namely the heritage institution, and the audience in terms of education or knowledge provision. She notes that historically, museums were somewhat exclusive and elitist whereas the recent advances in ICTs have allowed heritage institutions to provide global access to their collections (Hazan 2007, pp.137-141). The significance of this, Hazan argues, is that the emphasis on the material space of the museum or heritage site is reduced as the virtual space of the web takes precedence and can be viewed through any device with a web access (2007, p.145). While this may encourage greater numbers of people to enjoy heritage and may encourage follow up visits to the actual museum, it represents a shift towards the virtual space of the Internet. Moreover, the usage of ICTs may challenge not only the importance of the physical heritage site or institution but also threaten the primacy of the heritage professional as a source of authority, theoretically allowing greater levels of individual participation in heritage interpretation.

History and heritage, however, have long been open to interpretation and non-professional participation. Practices in the heritage sector, such as oral history, have allowed people to tell their own stories (Samuel 1994, pp.161-163). Roegiers and Troyen (2008) note that history is not a definitive discipline and is open to interpretation, which will vary according

to an individual's background (p.74). Virtual spaces therefore represent a continuation of this exploration and articulation of 'people's history'. To an extent, people are free to interpret whatever they regard as heritage and can use such interpretations to express their personal or community identity. However, this may prove problematic for WHSs in the respect that they have a clearly defined statement of OUV, which prescribes the elements of their heritage that are globally important. This global heritage may conflict with local heritage. Such issues are considered within this thesis.

The growth of the heritage industry represented a rise in the popularisation of history yet control of these representations of the past remained largely with heritage professionals. With the advent of the Internet, further popularisation and democratisation of the past is possible. The authority of cultural heritage institutions is challenged by digital media, as individuals can go online to seek information and alternative interpretations or make their own (Cameron and Kenderdine 2007, p.8). It is debatable whether this is something which would be welcomed by the managers of cultural heritage.

Parry (2007) evaluates the extent to which organisational structures within museums have adapted to address new technologies, their implications and their potential (Parry 2007, pp.13-14). He concludes that organisational change has been slow (p.130). Similarly, Simon (2010) suggests that the managerial culture of heritage organisations is likely to offer resistance to change, as heritage professionals may be uneasy about relinquishing elements of control (pp.324-330). This thesis explores these issues in respect of industrial UNESCO WHSs and examines the level of transformation or change that has been experienced by site managers in the context of increased usage of ICTs.

2.4 CONCLUSION

This chapter has reviewed the main themes and issues currently being debated within the cultural heritage tourism industry concerning the impacts and challenges of the global

dissemination of converging ICTs. It has noted the merit of employing temporal-spatial theories to conceptualise and understand the practice and impacts of ICTs within the cultural heritage industry and the potential implications new media has for the management and audience of digital cultural heritage. The review has attempted to combine relevant aspects of a range of disciplines and has identified gaps within the literature which this thesis addresses through fieldwork and analysis.

To this end, it can be seen that this thesis aspires to make an original contribution to knowledge by extending existing temporal-spatial theories to move beyond viewing the virtual space of the Internet and the World Wide Web in purely representative terms. It examines the degree to which the concept of 'liminality' may be applied to digital heritage tourism. The currently under-theorised elements of 'supply' and 'demand' within digital cultural heritage tourism (Minghetti and Buhalis 2010 p.268) have been examined to understand the relationship between ICTs and the audience and provision of digital heritage in the context of the United Kingdom's industrial UNESCO World Heritage Sites.

Existing practice of cultural heritage tourism, audience expectations and organisational change within the cultural heritage tourism industry, influenced by the dissemination of ICTs, has been examined. This thesis, through an analysis of the digital, tourism and heritage strategies on local, national and global level identifies the main themes and agendas for WHSs in respect of digital heritage and provides an evaluation of the degree to which ICTs have pervaded the managerial priorities of WHSs and an examination of the changing relationship between WHS management strategies and the audience of cultural tourism in light of the diffusion of ICTs within the industry.

3 THE STRATEGIC CONTEXT

3.1 INTRODUCTION

The introductory chapter noted that there are two essential elements to digital tourism, namely its provision or ‘supply’ and its audience or ‘demand’. The provision of digital tourism in UNESCO WHSs is largely determined by the site management teams through formal or informal digital heritage strategies but the approaches being implemented by industrial WHSs, on a local scale, do not exist in isolation from the wider national and global context of digital, heritage and tourism policies. This chapter provides an overview of the development of digital policy in recent decades and examines the main strategies and practices currently influencing the provision of digital tourism in UNESCO World Cultural Heritage Sites. It also provides horizon scanning of the political, economic, social and cultural environment and the key developments within the field of digital cultural heritage tourism, looking at relevant developments in associated fields such as education. The chapter synthesises the various themes present in policy at all levels and offers a framework for understanding digital cultural heritage tourism in temporal-spatial terms.

3.2 POLICY BACKGROUND

Guillén and Suárez (2005, p.681) have observed that ‘the growth of the Internet has captured the imagination of users, policymakers, entrepreneurs, corporate managers, military strategists, social commentators, scholars and journalists’. Moreover, policy at local, national and international level has been devised to regulate and exploit the opportunities offered by ICTs in many aspects of life. A major driver of digital policy has been the desire to overcome the so-called ‘digital divide’, a term coined in the 1990s to describe the perceived gap between people with access to ICTs and those without (Compaine 2001, pp. xi-xiv). The Organisation for Economic Co-operation and Development (OECD) described the phenomenon as:

the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities (OECD 2001, p.5).

The distribution of digital technology and ICTs has not been equal around the world, with most digital access being concentrated in democratic countries with developed economies (Guillén and Suárez 2005, p.681; Milner 2006, pp.195-196). In 2013, an estimated 75% of the population of Europe were Internet users, compared with 61% in the Americas and just 16% in Africa (ITU 2013, p.2). In terms of household access to computers and the Internet, it was estimated that 78% of households have material access in the developed world, with just 28% enjoying such access in the developing world (ITU 2013, p.3). Academics and policymakers have identified two divides, namely the ‘global digital divide’, the disparities between countries in their use and access to digital technology, and the ‘domestic digital divide’, namely the digital inequalities within developed countries (Maurer and Lutz 2011, p.266; Minghetti and Buhalis 2010, p.268; Shade 2002, p.1).³

The digital divide has provided an impetus to policymaking on a national and international level. Whilst some commentators (Shelley et al 2004, p.257; Block 2004, pp.401-402) have questioned the significance of the digital divide and challenged the role of state intervention in this regard, Goodwin and Spittle (2002, p.226) note that the widespread media rhetoric concerning the ‘information revolution’ meant that it was ‘politically untenable for governments to be seen to be doing nothing’ concerning the unequal dissemination of ICTs in society. Milner (2006, p.183) argued that democratic governments have been keen to preserve their political positions by promoting, or at least not inhibiting, technological developments that may foster economic growth. By the late 1990s it was clear that disparities

³ For the purposes of this thesis a ‘developing’ country is a country where most of the population has little money and has few public services. They may have poorly equipped health and education provision, poor transport infrastructure, poor sanitation, a predominantly agrarian economy and very high levels of Government debt. ‘Developed’ countries have richer populations, with greater standards in public services (World Bank Group 2012).

in Internet access were becoming a concern of governments and supranational organisations (Guillén and Suárez 2005, p.681; Dasgupta et al 2005, p.229) and during the first decade of the twenty-first century research into the digital divide was undertaken and published by a number of international organisations, notably by the OECD and the International Telecommunication Union (ITU) (Maurer and Lutz 2011, p.266). The OECD report (2001) urged governments to make policy reform in a number of areas to allow their economies to benefit from electronic commerce (OECD 2001, p.5). Governments across the globe have since attempted to implement wide ranging digital strategies and policies (Golding and Murdock 2001, p.112). The strategic emphasis is showing no signs of abating as the digital assumes a greater presence in everyday life.

3.2.1 Digital Policy in the Heritage and Tourism Sectors

The potential of ICTs in tourism was recognised early in the so-called ‘digital revolution’. In 1988, Poon stated that ‘at first sight, information technology and tourism seem to be very unlikely, if not unthinkable, partners’ (p.531). Yet, even by the late 1980s, the tourism industry was beginning to utilise computer technology in the form of electronic booking systems as well as planning and analysis devices (Poon 1988, p.532). The rapid development of ICTs in the subsequent decades has offered a range of tourism services that would have been almost unimaginable during the 1980s. At the end of the twentieth century Buhalis (1998, p.411) noted that that the impact of ICT on the tourism industry had been revolutionary and had compelled tourism operators to radically adapt their business practices. The process of transformation, however, is not yet complete and research and further development is being advocated through national and international policies. For instance, the Welsh Government in its Digital Tourism Business Framework Project aims to move Wales from ‘relative e-business immaturity firmly into the digital age’ by the end of 2014 (Welsh Government 2012a).

Digital tourism has evolved considerably since the 1990s and 2000s. Increased levels of digital inclusion throughout the globe, technological developments, the widespread use of social media and the growing ubiquity of Internet enabled devices have provided an impetus to the development of digital strategy within the tourism industry. These strategies do not necessarily come from governments, although they may be supported politically. The policies are frequently devised by individual visitor attraction, tourism operators and destination management organisations (DMOs). Tourism operators of all varieties have devised and implemented digital strategies in recent years based on global trends and the individual needs of the destination.

Within the tourism industry, a Digital Tourism Think Tank was established in autumn 2012, led by SE1 Media Ltd in a partnership incorporating academic and industry expertise, to take into account of technical and economic developments in the field and to provide networking opportunities for stakeholders within the tourism industry. To this end, the think tank aims to identify best practice within the industry and to provide leadership in terms of strategy formulation (Digital Tourism Think Tank, undated, v). As of May 2014, some 21 case studies had been uploaded on the website to illustrate examples of current best practice within the industry. Although none of these examples are WHSs or necessarily target the same audiences as the industrial sites selected as the case studies for this thesis, an analysis of these instances of perceived 'best practice', provides a wider perspective on the practice within the industry on a global scale. The methods employed within these destinations may also influence the decisions of marketing officers and digital strategists within the selected WHS so the themes identified from the analysis are still relevant at a policy formation level.

At the same time, developments have also taken place in the cultural heritage sector. By the late 1990s funding bodies had adapted to meet growing interest and recognition of ICTs in a cultural heritage context. By 1998, the Heritage Lottery Fund (HLF), one of the UK's leading funding bodies for cultural heritage, focused its ICT funding on making heritage

information and material freely available to the public through digital media. Collaboration and partnership working were identified as positive ways in which these digitisation projects could work. Infrastructural developments and research and development, however, were not funded (Parry 2007, p.135).

Early in the new century, the European Commission's DigiCULT initiative represented a significant landmark in the development of national and international digital policy in the cultural heritage sector. The DigiCULT Forum, supported by the European Commission's Information Society Technologies Programme, was established in 2001 to monitor and assess 'research and technological developments in and for the cultural heritage sector in Europe' (European Commission 2003, p.9). The DigiCULT report (2002) highlighted that cultural organisations such as museums, archives and libraries had no choice but to adapt to meet the demands of the digital age (European Commission 2002, p.11).

Intended as a 'tool for future planning' in cultural policy, the study provided a series of recommendations to guide the use and development of digital technologies in the cultural heritage sector in the period up until 2006 (European Commission, pp.12-13). The report called for the greater exploitation of the educational potential of digitisation projects within the archives, libraries and museums sector and advocated increased co-operation and partnership working between cultural institutions and other sectors (European Commission 2002, pp.14-15). Wider issues such as the preservation of digital files and the digitisation methodologies were also considered (European Commission 2002, pp.15-16).

Subsequently, DigiCULT established a 'Technology Watch' to ensure that the cultural heritage sector had access to vital data and information concerning the development and introduction of relevant technologies, including those still in the 'early stages of gestation' (European Commission 2003, pp.9-10). Through a series of Technology Watch Reports, DigiCULT provided descriptions of the emerging technologies and identified areas where

they could have positive or negative implications on the cultural sector (European Commission 2003, pp.9-11).

Funding opportunities for digital projects increased in the 2000s, with streams of money becoming available for projects that met government digital inclusion policies. Schemes including the New Opportunities Funding (NOF) Digitisation programme, the IT Challenge Fund, the Designation Challenge Fund, the DCMS Culture Online project and Curriculum Online project for schools, injected tens of millions of pounds' worth of funding into the cultural heritage sector within the first years of the new century (Parry 2007, p.135). The end product of such funding, incorporating collaboration between a range of partners working through co-ordinated strategies, resulted in projects such as the '24 Hour Museum', a DCMS funded, virtual national museum (Parry 2007, p.135).

In the 2010s, an important funder of digital cultural projects was the Digital Research and Development Fund for the Arts. The multi-million-pound funding scheme supported collaboration between cultural and arts organisations throughout Britain, working with the Arts Council England, Creative Scotland, the Arts Council Wales, NESTA and the Arts and Humanities Research Council (Digital R&D Fund for the Arts, undated). The scheme funded scores of projects that have been used to develop business models and engage audiences with the arts (NESTA undated, a). It has also provided, through its annual forum, valuable networking opportunities between academics, arts and cultural organisations and developers of technology (NESTA undated, b).

The changing nature of ICTs within society has also led to funding bodies re-evaluating their approach to digital heritage. In 2010, the HLF commissioned a report into the current practice of digital heritage in the United Kingdom. The report informed a review of the organisation's funding of digital projects. In 2012, the HLF announced it would also fund projects in the period 2012-18 which had exclusively digital outputs for the first time, rather than only including digital elements within a wider heritage project (Crosby 2013, pp.17-18;

HLF 2012). Previous HLF policies were drawn up in an age before digital technologies had become so pervasive within UK society. The report took a very broad and holistic approach to the heritage sector and focused on the use of digital technologies in a wide range of settings, including museums and galleries, the natural landscape, archives and libraries and the historic environment (Flow Associates 2010, p.10). The report was produced in the context of the climate of public sector spending cuts, especially in the low priority area of arts and culture; but also in the context of increasing political impetus to digitise government services and to increase digital inclusion (pp.20-24). The study concluded that the economic situation means that the heritage sector is looking for greater financial sustainability. Digital inclusion, promoted through government, is encouraging initiatives to engage people with ICTs. It argues that access to digital technology is increasing but people still have a desire to visit real places and have real experiences. Enthusiasm within heritage organisations was observed, as was the potential for communities and ‘citizen researchers’ to be involved in the creation of content and digital archives (pp.71-72).

Subsequently, the HLF published a good practice guide to encourage prospective grant applicants to take a considered approach when deciding to utilise digital technologies. It stressed that the funding should be used to provide a way to engage people with heritage, beyond simply promoting organisations and services. It also encouraged applicants to decide on the purpose of the ICTs in the heritage context (i.e. conservation, interpretation or administration of heritage) and to provide an evaluation or audit of skills of staff required to deliver and implement the project. Importantly, the guide stressed that the needs of the potential audiences need to be considered at the outset of a project (HLF 2012).

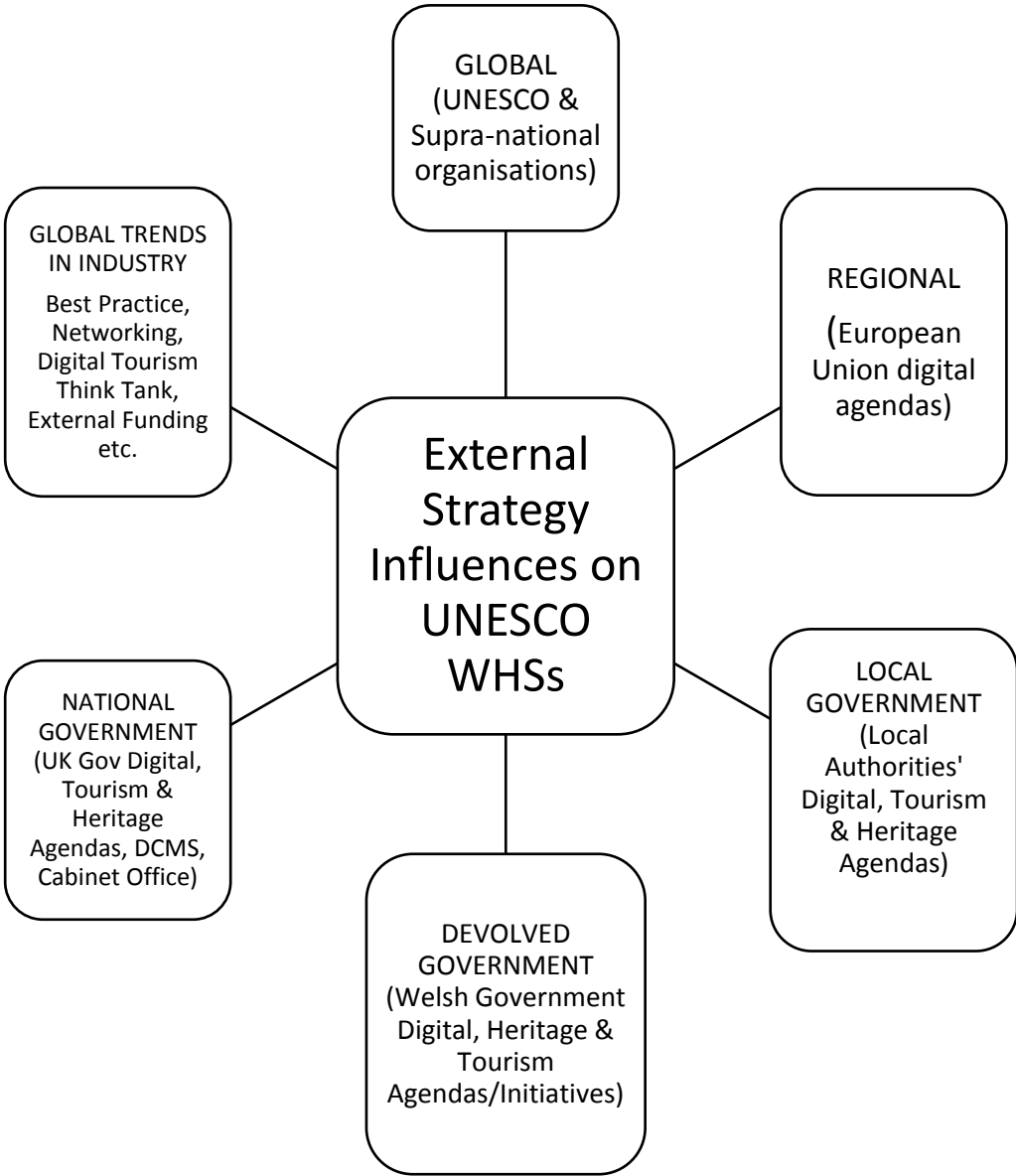
In terms of best practice and the sharing of ideas, industry-specific conferences have been established in recent years. In Wales, the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), which has undertaken a range of digital projects across Wales, including the development of Geographic Information Systems and 3D modelling of

historic buildings, has led on the delivery of the annual Digital Past Conference, which has been held at different venues across Wales each year since 2009. The conference allows for networking opportunities between academics, the museums sector, archives and local authorities (RCAHMW 2014a).

The use and proliferation of digital technologies are therefore having an on-going impact on policy, funding and practice within the tourism and cultural heritage sectors, as well through wider-reaching strategies. Through an analysis of such policy documents at government level, case studies and perceived instances of best practice in a number of relevant contexts, key themes can be identified. These themes have pertinence to the selected WHSs that will be explored in more detail in subsequent chapters and provide the context in which local strategy is devised.

The local, national, global and industry-specific strategies and best practice case studies analysed as part of this policy review are identified in full in Appendix D. The following diagram provides a summary of the strategic areas and levels explored within this chapter.

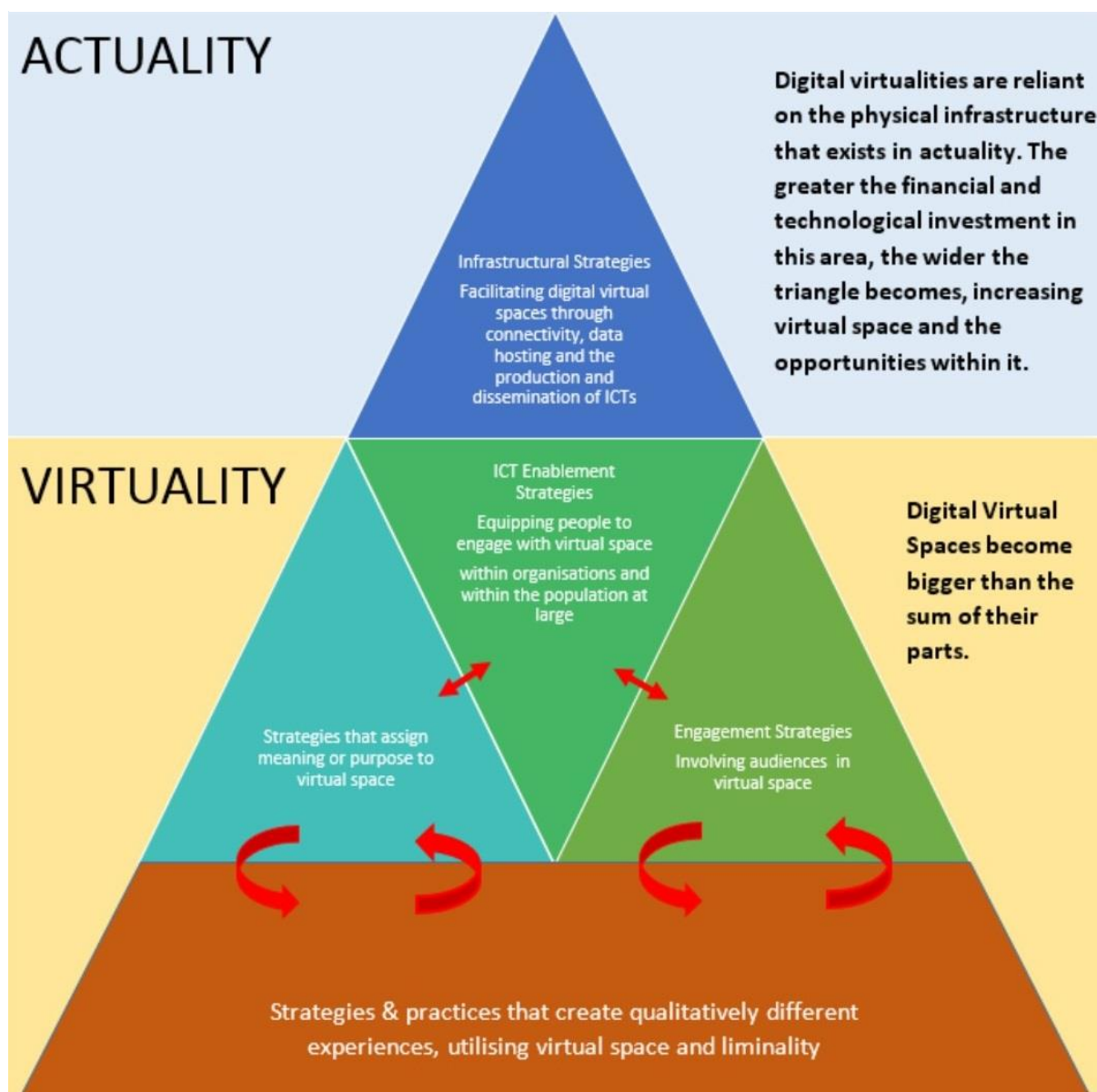
Figure 3.1: The external strategic influences on UNESCO WHSs when considering the development of digital heritage tourism strategies.



3.3 CURRENT STRATEGY AND PRACTICE IN DIGITAL HERITAGE AND TOURISM

The following diagram illustrates the themes that have been discerned from the analysis of relevant strategies and best practice and is elaborated on throughout this section.

Figure 3.2: Types of Digital Strategies and their Interrelationship



What follows is an explanation of the different segments within the above pyramid diagram, commencing with an understanding of the infrastructural strategies.

3.3.1 Building the Infrastructure: The Physical Facilitation of the Virtual

The introductory and theoretical chapters note that digital technologies create virtual spaces where a range of social, economic, cultural and political activities can take place. The virtual, as defined by Shields (2003), exists in essence but not in actuality. The virtual spaces formed by the digital are seemingly infinite and are given their meaning and purpose by the billions of people who participate within them. Nevertheless, despite the liminoid nature of the web, physical installations and the production and dissemination of ICTs in actuality are required to facilitate the virtual. Digital virtualities are constrained by the limitations of the technological infrastructure that support and sustain them. To this end, governments and supranational organisations have been anxious make infrastructural investments to ensure that the potential of virtual space can be fully exploited. This is to foster digital inclusion through ‘material access’ to the Internet (Van Dijk 2005). In the western world, with the exception of certain geographically remote areas, material access to ICTs and the Internet is now readily available, provided people actually wish to access the technology. Nonetheless, as the popularity and uses of this technology multiply, the increasing demands on the World Wide Web necessitates the updating of the infrastructure to ensure that these virtual spaces can be technologically sustained, enjoyed by increasing numbers of users, and allowed to develop further. Government policy and strategy therefore continues to play a role in facilitating the virtual.

In order to bring about a ‘digital society’, in which e-tourism and other online services can be made available to the world’s population, policymakers on all levels emphasise the need to strengthen and develop the ICT infrastructure in order to ensure that there is an adequate supply to meet the demands of the public and businesses. Connectivity is a theme consistent in digital policies, with each calling for a particular country, county or region to be the ‘most connected’ (DCMS 2009, p.4; Welsh Government 2010, p.3; Welsh Assembly Government 2006, p.13; TCBC 2010, p.6). In western countries, broadband services have been improved, local authorities have increasingly provided free Internet access in public buildings and

public areas, and schemes have provided free or cost-effective computer equipment for certain groups in society (Welsh Assembly Government 2010, p.14). Coupled with the substantial contribution of the private sector, an environment has been created in which the information age and the network society can develop, ensuring that people have the opportunity to participate and engage online. Economic gain is a key driver for improving the material access. It provides people with the tools and the equipment to join an international market, where they can buy and sell, thus helping the economy.

The UK Government observe, based on predictions by Intel, that by 2020 there will be some 31 billion Internet connected devices, including household appliances, which will form an 'Internet of Things'. The UK Government recognise that, to support this expansion of the Internet, a modern, superfast broadband network is required to underpin it, along with an appropriate evolution and review of laws pertinent to the field of digital economy (p.8). To this end, significant investment has been made to upgrade the UK's broadband connections and to support mobile telecommunications (DCMS 2013, p.15). In March 2014, the UK Government launched its Spectrum Strategy in order to increase the efficiency of Spectrum (the airwaves over which wireless communications devices communicate) so that the existing £50bn a year it contributes to the UK economy will be further increased by 2025. The strategy calls for international co-operation and research regarding Spectrum and aims to create a 'ubiquitous mobile broadband' infrastructure in which a whole range of devices will communicate with each other in the Internet of Things (DCMS 2014).

In order to ensure that UK citizens are able to exploit the benefits of the web in their personal and business interests, the UK Government have invested in the transformation of broadband access, with the aspiration that by 2017 some 95% of the UK population being able to access speeds of up to 24Mbps, with everyone reaching speeds of at least 2Mbps. A particular concern has been to improve material access to broadband in rural areas, where speeds are

far lower than the urban centres (DCMS, 2013b).⁴ The government is investing £530 million to encourage private sector involvement in expanding the provision of broadband to rural areas and investing a further £250 million to increase access to superfast broadband. Furthermore, £150 million is to be invested to create ‘super-connected cities’ across the country, with an additional £150 million to be spent on a Mobile Infrastructure Project to improve the coverage of mobile Internet. An attempt to reduce bureaucracy is planned to make it easier to install broadband infrastructure, allowing actual and material spaces to be adapted to facilitate the virtual (DCMS 2013, p.20).

The primary concern of policymakers at government level is therefore to ensure that an infrastructure is in place to ensure that public services, businesses and organisations can effectively communicate and transact with their principal stakeholders. Governments therefore are employing strategies that create a favourable economic and legal environment in which the virtual can flourish. To an extent, it is reminiscent of the United States Government sponsoring and encouraging the development of the railroads during the nineteenth century. Whereas the railroads allowed people to corporeally travel into new, underexploited spaces, where they would go on to develop social, cultural and economic systems, the creation of a digital infrastructure allows the creativity, curiosity and desires of the human mind to enter virtual spaces where real socio-economic interactions can take place. The focus on infrastructure also draws attention to the fact that these virtual spaces are grounded in actuality. Digital virtuality may be greater than the sum of its parts but without the infrastructure, funding, investment, business, skills training, innovation and enterprise, which underpin the Internet and ICTs, the virtual would be very difficult to sustain. Strategy of this nature therefore helps create, extend, sustain and improve access to virtual space and the multiplicity of activities that takes place within it.

⁴ Within Wales, the Superfast Cymru project, funded through government, the European Union and the private sector, is seeing an investment of £205m in upgrading broadband services. (Superfast Cymru 2014, <http://www.superfast-cymru.com/home>).

3.3.2 Enablement: Equipping People, Businesses and Organisations to Enter and Engage within Virtual Space

Another strategic priority at government level is to ensure that the population is equipped with the necessary skills to use ICTs and the Internet effectively. Computers have become more affordable and user-friendly since the 1980s and therefore they have become more accessible for wider sections of the population (Van Dijk 2005, p.71). According to Van Dijk (2005), several types of skills are required to benefit from ICT. Operational skills concern the ability to actually use the technology efficiently whereas other key competencies include ‘information literacy’ and strategic skills (Van Dijk 2005, p.92), namely the ability to identify a need for information, to obtain it, analyse it and to use it appropriately in order to achieve objectives. In the ‘Information Age’ the amount of information offered by the Internet is huge and users need to be able to identify relevant information and to discern between reliable and unreliable material (Van Dijk 2005, p.72).

In order to achieve digital inclusion, digital strategies consistently articulate the importance of education and training (TCBC 2010, pp.23-28; DCMS 2009, pp.165-187; European Commission 2010, pp.24-27). The importance of ICT skills training was stressed by the OECD in 2001 (p.6) who argued that education, especially in ICT, was the best way to overcome the digital divide in the long-term and that government should intervene to achieve this. The focus of the training is on both schoolchildren and ‘excluded’ adults who lack the knowledge to use ICTs effectively. Livingstone (2009) notes that strategy places high emphasis on the digital skills not so much because of the need to operate the technologies but also to accrue the wider benefits of digital inclusion and media literacy:

This is not because ICT skills are important in and of themselves but because, like print literacy, they constitute the means by which people can access information of all kinds, learn in a multimedia environment, communicate creatively and, not least, obtain employment in a competitive knowledge society (Livingstone 2009, p.65).

It is not just skills training that is provided but also schemes to motivate people to utilise the technologies and to demonstrate how ICTs can have beneficial uses within their lives. The UK Government have strongly advocated digital inclusion through its policy agenda and calls for collaboration between the public, private, charitable and voluntary sectors to get people online (DCMS 2013, p.15). Digital inclusion is also a pertinent issue in Wales, where the Welsh Government have incorporated digital inclusion into wider approaches to social justice, equalities and the 'Tackling Poverty' agenda. Consequently, the focus has been on support for older people, residents of social housing, the unemployed and other marginalised groups that have been identified as most likely to be digitally excluded (Welsh Government, 2013a). Schemes have been run through local Communities First organisations and related initiatives include Communities 2.0., a Welsh Government programme, largely funded by the European Regional Development Fund and delivered by a partnership of interested organisations. The programme aims to increase digital inclusion in the Convergence area of Wales through sharing best practice and providing training to individuals and support for businesses (Communities 2.0. undated).

The strategic emphasis on skills, illustrates that policymakers intend that people should take advantage of the opportunities presented within virtual spaces to ensure that they can retain active citizenship, social, economic and cultural engagement and key employability skills in an era where the digital is assuming a ubiquitous role in everyday life. The strategies recognise that government alone cannot deliver skills engagement but a range of public, private and charitable sector organisations should be included. This therefore raises opportunities for cultural institutions and tourist attractions to deliver projects that have synergies with the digital inclusion objectives of the governmental organisations and benefits for the institution or attraction itself.

3.3.2.1 Organisational Change

It is not just the general population that need to equip themselves to enter the virtual space. Businesses and public sector organisations have restructured and developed their operations and culture to take into account the challenges and opportunities presented by digital technologies. In a tourism context, the centrality of the digital has been recognised by a number of destination management organisations.

The various DMOs, identified by the Digital Tourism Think Tank as case studies, explicitly recognise the need for a digital strategy and place new media at the heart of their operations. In a financial climate of low funding levels, the digital offers a cost effective solution to a destination's marketing needs. Certain DMOs such as Visit Greenland have moved to a marketing strategy that is exclusively digital (DTTT undated, s) whereas others have placed increased emphasis on the importance of digital marketing. The Myrtle Beach case study revealed that over a five-year period the percentage of the organisation's marketing budget spent on digital had risen from 10% to 60% (DTTT undated, g). Whilst some DMOs still acknowledge the need to maintain traditional marketing (DTTT undated, k, l & t) the centrality of the website is a common feature among the case studies.

The increased focus on the digital has had an impact on the internal organisation of the DMOs. The recognition of the centrality of the digital necessitates that appropriate staffing is put in place to deliver these strategies. In the Visit Norway case study, staff with broad skills in digital technology, content creation and marketing are employed (DTTT undated, a). 'MySwitzerland' appointed a dedicated social media manager in a full time role in 2011, whereas the Cape Town DMO recognises that its staff need to be able to dedicate appropriate levels of time and effort into its digital activities (DTTT undated, k; o). Indeed, in small organisations such as the 'Visit Greenland' DMO, where under ten people are employed, allowing staff to be involved in the virtual social networks is viewed as making effective use of staff resources (DTTT undated, s). In Sørlandet the DMO works in partnership with other

local organisations and this presents an opportunity for shared training, collaboration and networking (DTTT undated, j). Additional support has also been brought in from the private sector. ‘Visit Norway’, for instance, contracted a local ICT company to develop an app for the destination, thereby utilising local expertise and benefiting the economy through the creative industries (DTTT undated, a).

Within the public sector, the digitising of services is being identified as a solution to increase efficiency and to reduce the cost of transactions. A PricewaterhouseCoopers report in 2009 argued that contact and transactions with public sector organisations, especially government services, can be made more efficient by being carried out online, with possible savings of £3.30-£12 per transaction. The report concluded by arguing that the total economic benefit of complete digital inclusion within the United Kingdom is potentially in excess of £22 billion (PricewaterhouseCoopers 2009, p.2). Subsequently, in 2010, Martha Lane Fox, the UK Digital Champion, influenced by these findings, recommended to the UK Government that public services should be ‘digital by default’ (Cabinet Office 2010). In her review of Directgov, the official UK Government website, which was broadly accepted by the UK Cabinet Office in November 2010, she noted the website’s potential to ‘empower, and make life simpler for, citizens and at the same time allow government to turn other things off’ (Lane-Fox 2010, p.1). The report claims that transferring 30% of contact with government services to a digital platform would save £1.3 billion per annum, increasing to a potential £2.2 billion pa if half of contacts were digitised (p.3). Indeed, savings have been identified at local government level as well as central government. A Socitm study in 2012, found, in research with 120 local authorities, that the cost to carry out a face-to-face transaction was an average of £8.62, a telephone enquiry £2.83 but an Internet transaction just 15 pence (Cabinet Office 2012, p.8). Therefore, there are clear financial incentives for public services to utilise online solutions.

Public sector heritage organisations have attempted to transform in order to ensure a coherent, strategic approach to the use of these new technologies is utilised to improve the efficiency of an organisation and to help it deliver high quality services for their audiences. English Heritage is making a deliberate attempt to transform the way it deals with digital issues. To this end it has established a digital board and various working groups to provide leadership on digital issues throughout the organisation. The new structure allows for a less fragmented approach to digital strategy; permits web content to be rationalised, following a consistent brand; and fosters a culture in which digital-specific projects are planned and implemented utilising, and making available, rich content derived from archives, collections and research, based on real user needs (DCMS 2012, p.32).

In a tourism context, the increasing digitisation of services has caused local authorities to consider restructuring to make more efficient use of resources. The climate of public sector budget cuts has applied pressure on tourist information provision and Tourist Information Centres (TICs) have been closed across the United Kingdom as the web can provide a more convenient and cost-effective solution.⁵ Such restructuring has proved controversial. In Monmouthshire, in which just under half of the Blaenavon WHS lies, the county's TIC provision has been under review on a number of occasions since 2009, with closures being considered in 2011 and 2014 (Monmouthshire County Council 2009, p.7; *Free Press*, 1 Apr 2011; *South Wales Argus*, 23 Feb 2014). Although, due to public pressure, the provision continues to be retained, the precarious position of these traditional forms of tourism information provision is clear to see. Indeed, it has been recognised that TICs will need to adapt to the demands of the digital age in order to survive (DCMS 2011, p.31).

⁵ <http://www.uktic.co.uk/category/closures/> provides examples of some of the TICs that have been forced to close in the UK in recent years.

3.3.3 Assigning Meaning to Virtual Space

Government organisations have employed strategies to provide the infrastructure for virtual environments to be maintained and extended. Furthermore, they have encouraged and sponsored attempts to aid people's adoption and access to such technologies. Yet, the meanings and purposes of the web are, to a large extent, created and defined by the people engaged within it. The virtual spaces can be established for positive purposes, providing support, help, education or charity towards others. Alternatively, the online pursuits may be considered banal, immoral or even criminal, but, to the users, these spaces have meaning and purpose. Government policies are not necessarily neutral towards web use and certain online activities have been outlawed and pursued through the legal and policing systems. Strategies and policies, however, are not just implemented to restrict the meanings, purposes and identities that the virtual spaces have. Government policies have also attempted to give direction on the type of content that is provided through the web in an attempt to articulate various agendas and 'positive' usage of the web as an educational or cultural interface. At an organisational level, individual businesses and organisations follow their own strategies to impose their identity on virtual spaces.

3.3.3.1 Educational and Cultural Uses of Virtual Space

The role of the digital as a space in which cultural ideas can be expressed and articulated is evident in strategy, even if these cultures are not dynamically being expressed at a grassroots level. For instance, the underrepresentation of the Welsh language on the web is a concern to the Welsh Government and they have provided funding in an attempt to bring Welsh identity and culture into the virtual space. The Welsh Government supports the generation of 'Welsh content, culture and creativity' as part of its digital strategy (Welsh Assembly Government 2010, p.8). More specifically, the government has expressed concern that little Welsh language content or software is being developed so, in line with its Welsh language Technology and Digital Media action plan, the government has provided funding of up to £50,000 for digital projects that utilised the Welsh language in innovative ways (Welsh

Government 2013b). The Welsh Government aim to support activities in the private, public and third sectors that raise awareness of or promote the use of Welsh language software and content, apps and digital services, thereby increasing the level of digital content available online through the medium of Welsh (Welsh Government 2013b). To an extent, this represents the state actively trying to impose its political and cultural agenda into the virtual space but also presents opportunities in which the web and other digital technologies can be used innovatively to create new uses and engagement with the digital, including in a cultural heritage tourism context (Welsh Government 2013b). This issue is not one which is exclusive to Wales, UNESCO also are anxious that certain languages and cultural identities are not marginalised on the web (Pimienta et al 2009).

Governmental organisations, local authorities and charities have supported and funded high quality digital content that meets ‘approved’ and ‘respectable’ purposes, typically projects that have educational merit and potential economic benefits. The Department for Culture, Media and Sport (DCMS) in its digital strategy (2012) note that the United Kingdom’s world-class museums, galleries and heritage sites have great potential to serve as delivery bodies for exciting and interesting digital services. Public bodies, such as the British Library, are working in partnership with the private sector to create innovative digital services that, using the connected and geo-spatial nature of the Internet, revolutionise the experience of its service users by preserving and presenting the essence of historical materials on an unprecedented scale (DCMS 2012, p.19). Digital heritage has permeated the Welsh Government’s agenda and has been incorporated into the policies of Cadw, its historic monuments department (Boys 2013, p.11). Cadw: Welsh Historic Monuments has obtained some £19m of European funding to deliver a Pan-Wales Heritage Interpretation Plan, which includes elements of digital interpretation at sites across Wales (Welsh Government 2012b, p.13). The strategy aims to use interpretation to improve the visitor experience and ensure

greater linkage between heritage sites in Wales in the hope that visitors will stay longer and make a larger contribution to the Welsh economy (Lewis 2013, p.24).

National Museum Wales, as part of its vision map 2013-2016, notes the potential for the use of digital technologies as a way to present Wales, locally and globally, through a 'Virtual Museum of Wales', improving the performance and effectiveness of the museum (AC-NMW 2013, p.6). New media solutions will be sought by the museum in order to develop educational opportunities. During the period up to 2016 a comprehensive digital strategy is to be developed and will reflect the priorities of the Welsh Government's *Delivering a Digital Wales* (2010) strategy. Furthermore, the National Museum will lead on the delivery of the People's Collection Wales, an extensive repository of images and material related to the history of Wales. It will also develop new digital content and work on other digital projects, where appropriate (AC-NMW. undated; Welsh Government 2010, p.12).

Using the Internet for heritage based studies, such as online genealogy, allows people to gain ICT skills; learn more about history and their personal heritage; develop research skills and may translate into actual visits to a site. The example of the BBC series *Who Do You Think You Are?* is cited in the UK Government digital policy, which notes that the success of the television series correlated with increased visits to the BBC Family History website as well as an 18% increase in first-time visitors to the National Archives website (DCMS 2009, p.44). The popularity of family history has resulted in the National Library of Wales making available free Internet access to genealogical resources in public libraries across Wales. Such approaches were advocated by the OECD (2001, p.6), who believed that Internet accessibility could be improved through ICT provision in public institutions.

The British Library, in collaboration with genealogy business 'findmypast', has utilised £3m funding from JISC, to digitise approximately 40 million pages from its newspaper collections to form a digital, fully searchable British Newspaper Archive that can be searched by the public, students and researchers, using the website from the comfort of their

own homes (British Library, undated). The British Newspaper Archive requires that its users pay a subscription or usage fee but similar projects in Wales are available free of charge for anybody to use. The National Library of Wales, utilising the Strategic Capital Investment Fund and the European Regional Development Fund via the Welsh Government, aspires to scan and upload searchable copies of the over a million Welsh local newspaper pages and, as of June 2014, has made substantial progress in this regard (National Library of Wales, undated).

The funding and creation of these projects provides remote access to a wealth of high quality content, including simulacra of representations of time and historical records. Government or funding priorities therefore have some impact on the development of local digital strategies and, by extension, on the identity of virtual spaces. Access to these documents and materials can inspire creativity, learning (formal or informal) and further our understanding and appreciation of the past. It represents a ‘colonisation’ of virtual space by cultural institutions as, aided by grant funding, they attempt to transform their business models to take into consideration the challenges and opportunities of the digital age. WHSs are not mentioned explicitly within these strategies but it is clear that the OUV that these cultural sites are considered to possess can be exploited and presented using digital media. The management of such sites have enormous opportunities to meet their obligations under the 1972 UNESCO World Heritage Convention by embracing the emerging digital culture.

3.3.3.2 Business and Organisational Identity in Virtual Spaces

The nature of online space is not just prescribed by government strategy. Organisations of all kinds wish to articulate their identities and agendas through the web and have established strategies to do so. In a digital tourism context, the case studies identified by the Digital Tourism Think Tank demonstrate that it is best practice for destination management organisations (DMO) to develop a clear brand identity and for the intangible values associated with this brand to be disseminated through the organisation’s marketing channels.

The DMOs typically identify the unique selling points (USPs) of their destinations and use these to rationalise and develop content as part of their digital offer. In the case of ‘Visit Norway’, themes associated with the country such as its natural beauty and famous sons have been identified as its USP. This has filtered through into the digital marketing with strong attempts at using visual depictions of the country (DTTT undated, a). By utilising digital spaces to articulate a brand identity, the DMOs are attempting to foster positive perceptions of the destinations and to raise awareness of the visitor potential in these areas in the aim of bringing about economic impact. The ‘Backin’ Belfast’ campaign in particular attempted to change brand perceptions of Belfast, in the wake of political unrest and a loss in customer confidence in the city. Social media was employed in order to present positive understandings of the city (DTTT undated, f). There is therefore recognition that the web forms a virtual space in which intangible values and identities such as brands can be conveyed.

Economic impact is also a key government priority and, provided state aid regulations are adhered to, grants have been made available to aid business transformation in respect of digital technology. A Welsh Government Digital Development scheme to support the creative industries with grants of between £5,000 and £50,000 per project was launched in 2013 in order to help businesses involved in the creative industries to attract new markets through the innovative use of new media. Projects that have the potential to generate commercial impact were prioritised under the scheme, especially if they were aimed at a global market. Non-commercial creative products were not supported by the scheme. It included the digitisation of non-digital services to make them available on a range of digital platforms (Welsh Government 2014).

3.3.4 Engaging with Virtual Audiences

The interest of government and business in the web and digital technologies is largely due to the fact that increasing numbers of people across the globe are accessing and participating

within virtual online spaces. Opportunities to communicate, trade and influence opinion have been recognised. The web does not form a single space, it provides a multiplicity of spaces, fulfilling a plethora of functions. The socio-spatiality of the digital means that virtual places have been formed in which people (and potential customers), meet in essence, interact and communicate. With the massive increase in the popularity of social media and so-called web 2.0 technologies in recent years, there are a wide range of social media services available, with Facebook, as of 2014, being the most dominant (Bullas 2014). People assign meanings to these virtual spaces. Geo-spatially dispersed people with similar interests, irrespective of whether they know each other in actuality, can form communities on special interests too numerous to quantify. They can also maintain, develop and enhance social networks with family, friends, colleagues, businesses and organisations. Whilst it can create new relationships, it also helps to maintain old ones and enhance existing ones (Pew Internet Research 2014). The connectivity of virtual space means that the people within it can engage in a variety of activities, in real time, irrespective of their geo-spatial position. This presents opportunities for the mass sharing of content, global participation and collaboration. Strategy at local, national and global levels by the public and private sector alike therefore attempts to exploit the social hierarchies and networks of the web in order to achieve economic, social, cultural or political objectives.

3.3.4.1 Marketing in Virtual Space

The web has become a space in which people discuss, buy and sell products and services. Businesses therefore use it to advertise their wares. This is also true of tourism, as destination management organisations (DMOs) and tourism operators use the space to persuade people to make corporeal visits to their destinations. The DMOs within the case studies identified by the Digital Tourism Think Tank have typically taken the decision to enter these virtual spaces, with certain organisations, such as Visit Norway, occupying and becoming active across the full range of social media platforms (DTTT undated, a). Others, however, are

more selective and focus on particular websites (DTTT undated, l). The digital has been recognised as having potential for business to customer (B2C) marketing as it allows businesses and organisations to communicate directly with their audiences and to learn about their needs.

The existence of geographically dispersed virtual communities also changes the environment in which markets are identified. Rather than appealing to general audiences and demographics, many of the case study DMOs now see the potential in focusing efforts on so-called ‘niche’ markets and audiences. The Flanders DMO, for example, utilises social networks to identify specific audiences. The followers of certain music blogs were seen as a potential audience for a music festival the DMO was promoting (DTTT undated, q). Indeed, the Stockholm Sounds project developed a smartphone app, tailored towards the needs of a particular audience, namely young gamers and music fans. The app therefore exploited this interest and formed a product that focused on Swedish music and engaged the user with quizzes and games (DTTT undated, b). Visit Greenland, which follows an exclusively digital strategy, uses niche marketing to its advantage, linking its promotions and marketing to its brand identity, namely to appeal to adventurous travellers or ‘extreme tourists’ keen to enjoy and experience the ‘Be a Pioneer’ brand (DTTT undated, s).

Marketing publicity is therefore centred on presenting the image of Greenland as a destination that will meet the needs of that particular audience segment. Content can also be targeted at particular localities, for instance, certain social media sites allow for posts to be made to users in specific countries. The use of Customer Relationship Management Databases (CRMD) and Destination Management Information Systems (DMIS) are also employed so that content and promotions can be tailored towards people who have identified themselves as having particular interests (DTTT undated, s).

Viral marketing, in which users share content and information within their own personal networks, has been identified as a useful means of attracting people’s attention. Visit

Norway, with its 'Scream Experience' and Colombia, with its viral campaign to end the confusion about the spelling of the country's name – i.e. 'it's Colombia not Columbia', have proved popular (DTTT undated, a; DTTT undated, d). In the Cape Town case study, the DMO ran a social media campaign entitled '#LoveCapeTown' in which people were asked to use social media to recommend good places to visit (DTTT undated, o). Similarly, Visit Sweden, in the period 2007 to 2013, ran the 'Community of Sweden' which utilised online forums in which people and visitors could discuss the destination and share ideas (DTTT undated, r). Visit Sweden have taken the radical step of even allowing members of the public to take editorial control of the brand via Twitter. Known as the 'Curators of Sweden' project, launched in December 2011, the guest editor provides their individual perspective on the country for a period of one week. The DMO reports that the initiative attracted high levels of interest, with 65,000 followers in 120 countries, thereby having a massive reach for minimal financial investment (DTTT undated, r). It can therefore be seen that various DMOs are employing a wide range of innovative marketing techniques in light of the increased use of social media and digital technologies.

3.3.4.2 Civic Engagement, Feedback and E-Democracy

Academic debates have emerged about the effectiveness of the Internet as a tool for civic engagement and democracy (Sylvester and McGlynn 2010, pp.66-67). Sylvester and McGlynn (2010, p.72) have concluded that Internet access provides people with greater contact to politicians and decision-makers and therefore advocate that government should promote the use of technology to aid participation in society. Such access would also weaken the dominant positional power of the decision-makers in relation to the public (Van Dijk 2005, p.17). E-governance and empowerment are themes common among local, national and international digital policies. Electronic participation has a role in tourism as customer feedback and interaction are important for visitor management. The British Government, for instance, has recognised the power that individuals may exert over the tourism industry

through using the Internet as a tool of enfranchisement. Its tourism strategy declares that ‘websites make customers king’ and notes the importance of online services such as Trip Advisor and Expedia in providing feedback about tourist experiences at attractions, accommodation or eateries (DCMS 2011, p.29).

The government argues that the online feedback provided by customers is an increasingly used and trusted service. It notes that the advent of such customer feedback is making traditional rating schemes less relevant in customers’ decision-making processes and provides challenges to tourism service providers, prompting them to learn from candid public feedback (DCMS 2011, p.29). Such principles suggest that online tourist communities can influence people’s travel intentions and have enfranchised the users of tourism services, allowing their opinions and voices to be heard and to have an impact on the management of tourist destinations. This is a phenomenon which has developed from the ‘bottom-up’ and is beyond the direct control of policy-makers and the tourism industry. The Internet has meant that it is now easy for tourists and tourism service providers to interact and communicate (Baglieri and Consoli 2009, p.354). It affords the tourism industry an opportunity to learn about the needs of tourists and their feedback in order to improve and develop their services and their competitiveness (Baglieri and Consoli 2009, pp.353-354). The Internet, in this instance, would strengthen the power position of the tourist in relation to the tourist provider (Van Dijk 2005, p.11).

3.3.4.3 Crowdsourcing of Content, Virtual Volunteering and Virtual Ambassadors

In the field of cultural heritage, volunteer effort can also be utilised using digital technology. People’s passions and personal interests in heritage can be harnessed to create products and resources. Since the 1990s, for example, a charitable organisation comprising of globally dispersed volunteers has been actively transcribing and making freely available thousands of birth, marriage and death records (Free UK Genealogy. undated). The Welsh Government and European Development Fund supported project ‘Cynefin’ encourages the

crowdsourcing of virtual volunteer effort in order to align historic Tithe maps to modern maps, to transcribe apportionment documents and to digitally link them to the maps (Gruffudd 2014). Similarly, other schemes such as the People's Collection Wales, supported by the Welsh Government, and the 'Lives of the First World War' project, led by the Imperial War Museum, necessitate the support of a virtual audience to build up significant databases and digital collections (People's Collection Wales, undated; Imperial War Museum 2014). Such projects illustrate just some of the ways in which large scale activities can be undertaken by geographically dispersed people to aid organisations achieve objectives and also create high quality and meaningful products and resources that will be accessible and valuable to global audiences.

The concept of finding ambassadors to promote tourist destinations is something that is increasing in popularity with a number of the DMOs sponsoring so-called 'ambassador blogging'. Bologna, in its 'Social Media Free Trip' campaign, users with large social networks and a reputation for producing good quality content were selected to have a free trip to the destination, facilitated and funded by partner organisations, in exchange for social media updates about the visitor experience. The posts were visible within the individual's social media feeds but also the DMO's official feed (DDDT undated, e). In Catalunya, Guam, Cape Town and Flanders similar trips have been sponsored in which key influencers, particularly within special interest communities, have been selected and given remits to blog about the destination (DTTT undated, h, o, q & r). This recognition of the social hierarchies that exist within virtual communities, where people who may not necessarily hold positions of influence in actuality, form important roles in the virtual.

People, trust and authenticity are key themes evident in how individuals and organisations interact within the socio-spatial. It is the meanings of space, rather than the technologies that facilitated it, that gives the virtual its importance. DMOs have taken the opportunity to enter into this space and have engaged directly with its audience, involving them in conversations

and seeking to develop social capital. Trust and reciprocity underpin this moral economy and that is why the recommendations of ‘ordinary’ people hold a sense of genuineness and authenticity, meaning they are more likely to be trusted than the marketing messages and publicity material of destinations or organisations (Vaynerchuk 2013; Germann-Molz 2013; Zeng and Gerritsen 2014, p.31). Of course, brands and publicity still have an influence, but they can be publicly scrutinised and evaluated through the web and that is why destinations are keen for positive ‘word-of-mouth’ comments to be disseminated. This is influenced partly through an emphasis on good customer service. The Sørlandet DMO, for example, believes that good customer service online and offline will inspire positive feedback and recommendations (DDDT undated, j).

3.3.5 The Creation of Qualitatively Different Experiences

Government policy recognises the potential of digital technology in the creative industries and the potential economic benefits it may have to the economy, noting the success of the nation’s film and television industry that brings in £1.4billion to the UK economy and supports many jobs within the sector (DCMS 2013, p.9). In September 2013, the UK computer games company Rockstar North, based in Dundee, launched its hugely popular but highly controversial *Grand Theft Auto 5*. It was an overnight commercial success and quickly set a number of world sales records, as it sold over 11 million copies within 24 hours and generated over \$1 billion in sales within three days of its launch (Lynch 2013). Whilst a success for the British creative industries, it also bore testament to the growing importance of the digital gaming industry and the popularity of open-world games. The UK Government highlights the importance of using legal measures for the creative industries to flourish and innovate. This includes the investment in ‘high-quality content’ and measures to support the industry with tax relief, better regulation of intellectual property, and schemes to nurture talent in the sector (DCMS 2013, p.9).

Investment and innovation is being made to provide digital content within the cultural heritage, education and tourism sectors. In Merthyr Tydfil, for example, a smartphone and tablet application entitled 'Irontown Interactive' was launched in 2014, developed by the Centre of Excellence in Mobile Applications and Services (CEMAS), at the University of South Wales. The app allows the user to assume the role of nineteenth century teenager who can negotiate and explore a 3D graphical interpretation of Victorian Merthyr. The product, which was made available free of charge, was primarily produced in order to provide an educational tool (BBC News 2014).

The role that apps and computer games can play in education is being increasingly recognised. Nolan Bushnell, who invented the Atari games console in the 1980s, has established a US-based company called BrainRush. He argues that, like computer games, education can be made addictive and engage the mind, aiding the significant retention of information (BrainRush, undated.). Thomas Butt (2012), president of BrainRush and creator of Adaptive Practice™ Technology, argues that computer games provide a useful space through which to educate. 'Adaptive Practice' games attempt to focus the learning on what people need to learn and set challenges accordingly (Butt 2012, p.8). Whilst such claims do provide a degree of excitement, caution must be exercised about the value of such approaches. Livingstone (2009), for example, casts doubt on the assumption that simply because children enjoy computer games there can be a transfer between entertainment games and education, noting that, through her research, educational games tended not to be popular learning activities (Livingstone 2009, p.79).

ICT has largely been used to improve traditional teaching methods but organisations such as the British Educational Communications and Technology Agency (Becta) note the potential for ICT to transform the educational experience (Livingstone 2009, p.64). Schools, in many respects, follow a nineteenth century paradigm, but ICT allows for a paradigm shift (p.82). The developments taking place globally, but particularly in the United States, indicate that

qualitatively different educational experiences are being created and will continue to develop as virtual space is harnessed and exploited for educational purposes.

Within the United States, increasing strategic attention has been given to the ways in which digital technology can transform education delivery. Initiatives such as the Khan Academy, founded by Salman Khan and backed by Microsoft founder Bill Gates, provide innovative ways to extend access to education and to also change models of education. Lessons and content are made freely available online through video-sharing sites such as YouTube, allowing anyone with an Internet connection to access the material. Some US schools have embraced the technology and have enrolled their pupils at the virtual academy. Through an educational model known as 'Flipping the Classroom', the traditional curriculum content is delivered at home via Internet videos, whereas the actual class time spent with a teacher is dedicated to practical work to reinforce learning (akin to the traditional 'homework') yet, under the new system, the teacher is available to help pupils with specific areas they are having difficulties with or set challenges for the more advanced pupils (BBC Radio 4, 24 Feb 2014).⁶ The scheme allows for an individualised educational experience that is qualitatively different from that traditionally experienced within the classroom. Despite some scepticism over recent activities within the field, Livingstone (2009) argues that there are strong indications that practices will profoundly evolve within the sector, allowing for greater creativity and access to expert guidance and material (Livingstone 2009, p.90).

The applications of the digital technology can also change qualitative experiences within the heritage and tourism sectors and do more than simply replicate traditional paradigms. The Stockholm Sounds app, for example, contains more scope for interaction and engagement than a traditional guidebook whereas 'Visit Brasil' exploits 'gamification' trends by using gaming apps to encourage people to learn about Brazilian cities – i.e. quizzes, games,

⁶ Livingstone (2009) highlights a concern that the increasing emphasis on ICT within all areas of educational curriculums means that children without personal devices and ICTs within the home are likely to become educationally and socially disadvantaged (p.81). Therefore, policymakers and educationalists need to be cognisant of this form of exclusion.

interesting facts (DTTT undated, b; i). The case studies also illustrate that destinations are increasingly concerned not just with using digital technology for advertising, promoting or raising awareness of sites, but also with creating qualitatively different experiences. The use of augmented reality, in particular, creates new spaces and visitor attractions by adding virtual layers to the actual. The Stockholm Sounds project, for example, creates a new tourism experience in a digital format. By combining music and video content, augmented reality, stories and history with the physical space, a new, liminoid, visitor attraction is formed where one previously did not exist (DTTT undated, b).

There is also evidence of the virtual being ‘stretched’ into the actual. The Visit Belfast visitor centre makes extensive use of ICT and web technologies in the physical space of the visitor centre, with tourist information kiosks and touch screen devices, interpreting the main themes associated with the brand. A social media wall allows for the integration of the DMO’s social media feed within the actual visitor destination. Representations of space and spaces of representation are featured through the use of digital interactive maps of the city and video walls, showing the latest online content and promotional videos. Furthermore, free Wi-Fi is included throughout the destination to allow for visitors to access the Internet and to be involved in the virtual spaces. At the same time, traditional customer service can be maintained by the staff of the centre, who can aid visitors and answer enquiries (DTTT undated, c).

Virtual museums, which can be accessed remotely, continue to be developed. The Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) was awarded £60,000 from the Visit Wales Digital Tourism Framework Programme, HLF and Cadw, to develop a virtual resource to interpret the history of Welsh religious nonconformity as part of a wider scheme to restore Yr Hen Gapel, Llwynrhydown, a Unitarian chapel. In a context where chapels are closing frequently across Wales, the project allows for them to be recorded

and interpreted using graphical visualisation, photography and geographic information systems, even though the actual sites are threatened or have been lost (RCAHMW 2014b).

In 2014, significant new interpretative experiences were launched at the Stonehenge and Avebury WHS, and at the Battle of Bannockburn visitor centre. Both of which make significant attempts to stretch virtuality into actual spaces, facilitating and inspiring liminoid experiences amongst their service users. In the case of the Stonehenge interpretation, the use of audio-visual projection allows for immersion into a 360-degree environment that provides a simulacra of Stonehenge (Campbell 2014, p.5). The Bannockburn project similarly provides a qualitatively different, virtual and liminoid experience that interprets the Battle of Bannockburn 1314. It utilises the latest technologies and provides a three-dimensional environment that recreates the preparation for battle and the conflict, allowing the visitor to assume a temporary identity, namely that of a medieval military strategist. This temporary immersion into a simulated version of the past provides a liminoid space in which people can empathise with historical characters, test ideas, play and learn about the past through an elaborate strategy game (Clark 2014, p.6).

3.4 CONCLUSION

This chapter has identified themes in digital strategies currently being implemented within the fields of digital inclusion, public sector efficiency reform, cultural heritage, education and tourism. All of these areas have relevance for the selected industrial UNESCO WHSs yet a deliberate attempt has been made throughout this policy review to examine the strategic influences and practices of digital technology in a context wider than the principal case studies for this thesis. This is to ensure that activities taking place in the selected WHSs are not seen in isolation and that the thesis demonstrates cognisance of global and national trends in the relevant digital fields. The strategies referenced within this review consist of a mixture of government and public sector documents and industry-recognised instances of best practice in digital heritage and tourism. Whilst government priorities influence funding

decisions and provide some degree of direction, these strategies generally have no prescriptive or binding authority over WHSs, although funding imperatives and good practice are likely to prove quite persuasive for largely publicly funded WHS management organisations when it comes to setting their own digital strategies. Indeed, the synergies in all of the above areas, coupled with the wider and overarching aims of WHSs, it would appear that, theoretically at least, WHSs are well poised to take advantage of the advances in digital technology.

It can be seen that since the dawn of the twenty-first century government and international organisations have displayed increasing levels of attention towards the role of potential uses of digital technology in society. It is a rapidly moving area and in the period in which this thesis has been compiled (October 2011 to December 2014) there has been much change in field as organisations of all kinds are attempting to transform or at least adapt their structures and operations to take into account the macro-economic and socio-cultural impacts of the digital throughout the developed world. Policies have attempted to address both the global and the domestic digital divides with the overarching aim to achieve socio-economic regeneration on local, national and international levels. Policies on all levels indicate an acceptance that providing access to the Internet through infrastructural improvements and by encouraging greater engagement with technology can allow people to enjoy greater freedoms as citizens and consumers. Therefore, policymakers hope that training, and providing incentives for people to go online, will endow people with the skills and the ability to use the Internet as a research tool and to engage in so-called 'e-commerce' (European Commission 2010, p.25).

Strategies have been far-reaching, covering a range of areas in which it is perceived that digital technology could bring about economic gain. The tourism and heritage industries have increasingly recognised the potential of ICTs and are beginning to implement new strategies to make the most of computer technologies in terms of marketing, promotion,

access and interpretation. Policies are consistent in that it is intended that economic improvement, inclusion, education and enfranchisement be achieved through digital technology, heritage and tourism. Such policies can be viewed in temporal-spatial terms and this chapter has provided a new framework to understand the development of digital strategy in temporal-spatial terms.

4 METHODOLOGY AND METHODS

4.1 INTRODUCTION

This chapter provides an exploration of the methodology and research methods that have been deployed within this study to answer the overarching research questions and produce an original contribution to knowledge. It evaluates the strengths and shortcomings of qualitative and quantitative research and discusses the relevance and appropriateness of various methodologies and methods to this project. The chapter outlines each research method that was applied during the data collection process and explains how the research was implemented, noting the rationale of the research tools and any ethical issues concerning them. It justifies the need for triangulation of methods to ensure a robust and objective research project that will adequately find answers to the three research questions identified in chapter one.

4.2 METHODOLOGY AND RESEARCH DESIGN

The realm of social activity, including people's everyday lives and work practices, has long been a focus of academic interest. Phronetic research approaches have been made to understand such behaviours and to apply the findings to improve specific 'real-world' problems (Merriam 2009, p.1; Tracy 2013, p.4). The research design for this study adopted an interpretivist epistemological methodology to the overarching research questions. Such an approach advocates that the social world, including humans, their institutions and their organisations, is essentially different from the natural world and, as such, natural science methodology alone is insufficient to explain and understand human action (Bryman 2012, p.28). The research also favoured the constructivist ontology in the respect that the researcher presupposed that social actors have the power to influence changes within organisational structures and society. Nevertheless, the research questions were designed to

allow for a variety of factors influencing the development of digital strategy and practice to be expressed, allowing for a reconsideration of the ontological position if necessary.

Inductive, qualitative research was held to be the most appropriate way to answer the research questions as such an approach allows for detailed, intuitive research, concentrated on specific social phenomena (Merriam 2009, p.1). Qualitative research seeks to understand 'meaning in context' (Merriam 2009, p.2). Furthermore, it has the potential to produce findings that can have positive and useful impacts within social and organisational situations (Merriam 2009, p.1). Due to the applied nature of this study, a predominantly qualitative approach was considered suitable in generating evidence that would prove useful to the needs of the Blaenavon Industrial Landscape WHS.

Qualitative social science research has its origins in anthropology, where researchers would enter communities and observe practices and activities within them. They would participate within that community, talk to and interview the people within it, and analyse the documents and literature that informed its culture and organisation (Merriam 2009, p.7). Qualitative research also allows for non-intrusive, observational studies into 'real world' situations and since the 1960s, the field of qualitative research has matured as a wealth of publications have provided a plethora of research methods (Merriam 2009, p.7).

Quantitative research, with its focus on generating statistical evidence, is frequently viewed as more scientific and rigorous than the qualitative approach yet it has limitations in that it does not allow the researcher the freedom to employ his or her own insight, interpretation and intuition in the same way that qualitative research does (Dawson 2009, pp.14-15; Walle 1997, p.525). In this respect, quantitative research methods are more suited to the positivist and deductive approaches as such methods are perceived to be closer to the methods of the natural scientists (Bryman 2012, p.36). Qualitative research is more appropriate for inductive and interpretivist research as it allows for the gathering of text, words, ideas and opinions rather than being preoccupied with the scientific quantification of data. Theory is expected

to emerge from the data as it attempts to acquire a descriptive and emic (rather than etic) understanding of the participants' view of a phenomenon (Merriam 2009, p.14). It can take the form of a flexible research design that can change in accordance with the emerging research findings (Merriam 2009, p.16).

Quantitative research methods, however, have been the dominant approach to social science research since the Second World War. Indeed, much tourism research has favoured the quantitative approach in order to provide seemingly more scientific and statistical evidence to account for a phenomenon (Walle 1997, p.524). The need to provide statistical evidence to complement the data generated by qualitative methods is recognised in this study. The use of quantitative research would allow for themes identified within the qualitative methods to be examined and quantified on a larger scale. The statistical data generated may aid decision-making in organisations in a way which would not be perceived as overly subjective as it provides a check on the qualitative data. There is value in both qualitative and quantitative research methods and, to this end, a mixture of the two approaches has been incorporated into the research design in order to triangulate the research. These are explored and justified below.

4.2.1 Influences on Research

The role of the researcher as the principal research 'instrument' is crucial in qualitative research (Tracy 2013, p.3). Human skills in collecting data, analysing and interpreting it are key to the qualitative paradigm (Merriam 2009, p.2). Social researchers, however, will frequently and perhaps inevitably, enter their study with certain preconceptions informed through their own experiences, world views and knowledge. Theoretically, all bias should be removed from the research process and the researcher should act objectively and impartially. Nevertheless, such an approach is virtually impossible within the social sciences because researchers themselves, as social actors, can never be truly removed from their research subjects. Researcher bias is therefore a criticism that can be levelled at qualitative

research. These biases, however, can be kept in check through self-reflexivity and can, and should, be monitored and acknowledged (Tracy 2013, pp.2-3). Nevertheless, such preconceptions themselves are often generated inductively through ongoing learning and activity in the academic discipline and in everyday life (Merriam 2009, p.16).

This research project attempts to display reflexivity and to explicitly acknowledge the biases, values and influences impacting upon the researcher. Indeed, the fieldwork work research for this study cannot claim to be carried out without preconceptions. The literature and policy reviews, provided in chapters two and three, were continually updated throughout the research process. This was a necessity due to the rapidly shifting nature of the research area. Therefore, throughout this iterative and inductive process, the researcher was exposed to the major contributions, theoretical insights and practices within the subject area. This may have implicitly or explicitly informed the design and implementation of the fieldwork methods but more data was required before credible theories or a hypothesis could be compiled. The researcher therefore approached the subject in an open-minded manner, accepting that the wider theoretical background may not necessarily apply to the research area or that new theories and perspectives may emerge from the data.

The above sections have already outlined the researcher's stance on epistemological and ontological issues and there were efforts throughout the methodology to ensure these values were kept in check and that the researcher remained as objective as was reasonably possible (Bryman 2012, p.39). The areas of this research that have been influenced by values and external imperatives include the selection of the research topic, the formulation of the research questions and the choice and application of methods. In respect of the research topic, the funding area of this project had significant implications for the direction of the research.

The research was funded by the European Social Fund through a Knowledge Economy Skills Scholarship. The research had to be related to the policy priority area of digital economy and

applicable to the needs of a project partner. The partner for this project was Shared Resource Service (SRS) Business Solutions Ltd. The SRS contains three major shareholders, Torfaen County Borough Council, Monmouthshire County Council and Gwent Police. Responsibility for supervising the applied elements of the PhD was delegated to the EU Convergence based Torfaen County Borough Council, which was in the process of delivering a borough wide digital agenda and co-ordinates the management of the Blaenavon Industrial Landscape WHS.

The research area and the research questions were devised in collaboration with the Economy and Enterprise Department of Torfaen Council. The research was designed in a way to generate data and knowledge which will have practical benefits for the Blaenavon WHS and inform digital and regeneration strategies for the wider area. The research was expected to examine the Blaenavon WHS and its specific needs. Theoretical and academic interests were not overlooked or compromised but certainly imperatives set by the project sponsor influenced the approach taken to the research.

As part of the applied research, the funding arrangements necessitated that a ninety-day work placement be carried out with the partner organisation throughout the life of the project. This work, generally carried out on a weekly basis between September 2012 and March 2014, inevitably brought the researcher into close contact with the objects of the study, namely the personnel who devise and implement digital heritage tourism in the Blaenavon WHS. It also generated practical experience of working on specific projects in the field of digital heritage tourism, which inevitably resulted in the researcher developing opinions and perspectives on so-called good practice. As a consequence of these factors, the researcher may have conscious and subconscious attitudes to the organisation and its staff, which had potential to influence the way in which the research was conducted. Whilst this, in itself, is an inductive process, objectivity and impartiality were aspired to throughout the research process and the

methods sections detailed below, fully explain how such preconceptions or bias were overcome or mitigated in the research design.

4.2.2 Case Study Research Design

In order to structure a framework for the collection and analysis of data, a research design must be defined, including qualitative and quantitative methods. This research project has utilised a case study research design as this approach allows for in depth exploration, detailed description and analysis of phenomena in a specific context, such as an individual location or organisation (Merriam 2009, p.40). Case studies are particularly useful in generating solutions for research questions that ask how or why a phenomenon is taking place so are therefore appropriate for this study (Yin 2009, p.9). Case study is a common methodology within tourism research (Beeton 2005, p.37) and Hoaglin et al (1982) note that case studies provide a number of benefits.

Case Study Methodology:

1. Can explain why an innovation worked or failed to work.
2. Has the advantage of hindsight, yet can be relevant to the present and to the future.
3. Can illustrate the complexities of a situation by recognising more than one contributing factor.
4. Shows the influence of personalities and politics on an issue.
5. Can show the influence of the passage of time through longitudinal studies.
6. The reader may be able to apply it to his/her situation.
7. Can evaluate alternatives not chosen.
8. Can utilise information from a wide variety of sources.
9. Can present information in a wide variety of ways.
10. Can illuminate a general problem through examination of a specific instance.

(Hoaglin et al 1982, as cited in Beeton 2005, p.38)

Deploying the case study research design to the study of digital tourism made it possible to employ an idiographic approach to understand, in detail, the practice and impacts of digital cultural heritage tourism, in each of the selected UNESCO WHSs. It permitted an investigation into the perceived successes and shortcomings of digital cultural heritage tourism strategies in specific sites, looking at a variety of factors and using a variety of sources relevant to the individual WHS.

Caution was exercised as case studies have been criticised for being unreliable due to being too specific towards one subject, thereby casting doubt over their ability to provide a more general application (Beeton 2005, p.38). Concerns have been raised that the methodology lacks quantification and objectivity and may result in complex findings that can be overly long and detailed. Therefore, clearly defined boundaries were set for the study and triangulation of methods, using both qualitative and quantitative approaches, were used to help overcome some of the shortcomings of the case study design (Beeton 2005, p.39). The case study research design is replicable in the sense that the same approach can be applied to a range of sites. The same methods can be applied to multiple WHSs and generate results that are comparable.

4.2.2.1 Comparative Case Studies

A criticism made of case study methodology is the perception that they are vulnerable to researcher bias as the qualitative and interpretive nature of the investigation and analysis is likely to be influenced by the researcher's value system (Beeton 2005, p.39). Multiple case studies were therefore used in this project to compare the experiences within the WHSs and whether certain phenomena witnessed are unique to one particular site or if there are general trends and patterns among the selected WHSs.

As part of the funding arrangements for this PhD, applied research had to be undertaken within the Blaenavon Industrial Landscape WHS. As outlined above, the research findings were expected to be applicable to the needs of the WHS management partnership and this

priority impacted on the selection of comparable case studies. In terms of researcher neutrality, it has been discussed above that the relationship between the researcher and the Blaenavon WHS exposed him to preconceptions and potential bias. The use of multiple case studies, looking at sites with similar backgrounds and challenges to the Blaenavon WHS, allowed the researcher to look at comparable situations with a fresh perspective. Practical considerations, such as time and financial resources, meant that a sample of four WHSs were compared. This sample included the Blaenavon WHS and three others.

Selection of Comparable World Heritage Sites

The selection consisted of cases that are representative of United Kingdom industrial UNESCO World Cultural Heritage Sites. ‘Extreme’ or ‘unique’ cases were not selected, as the project aimed primarily to understand the practice, impacts and potential of digital tourism in a specific context rather than to seek contrasts. Selecting extreme cases would not necessarily generate results that would be appropriate and transferable to the needs of the Blaenavon WHS. For instance, St. Kilda WHS, a volcanic archipelago exhibiting both natural and cultural features of OUV, is an example of a site that makes use of digital technology for heritage and tourism purposes. For example, it places emphasis on providing remote access to the WHS and intends to provide a visitor centre that will interpret areas of the site that visitors may have difficulty in physically visiting (National Trust for Scotland 2012, p.68). Virtual access is also provided to the site through the web and other media to provide alternatives to corporeal visits to the islands (National Trust for Scotland 2012, p.29). Prima facie it would be an ideal case study as it could demonstrate an example of how ICT is being exploited within a WHS yet the management aims and objectives of the St. Kilda site are different from an industrial site like Blaenavon in a number of respects.

St. Kilda is a fragile site that is ‘threatened to a degree by a range of remote and local environmental and anthropogenic factors such as climate change and unsustainable tourism’ (National Trust for Scotland 2012, p.38). This means that issues such as conservation, visitor

management and the provision of remote access are key concerns for the management of the WHS. St. Kilda has not been inhabited since August 1930, when the final thirty-six residents were voluntarily evacuated to the mainland (Huxley and Smith 2009, p.243). Consequently, although the site has numerous stakeholders such as the National Trust for Scotland, Historic Scotland, Comhairle nan Eilean Siar Local Authority Area, the Ministry of Defence and the people who visit and are employed at the site, it does not have the breadth of stakeholders that industrial sites such as the Blaenavon Industrial Landscape has (National Trust for Scotland 2012, pp.16-18). Industrial sites are frequently spread over wide areas, they are in multiple ownership, and are home to local populations comprising of thousands of residents. The management of such sites therefore take into account the needs of such stakeholders and the sites' use of digital technologies may reflect such objectives.

Each of the selected WHSs represents a transition from industrial, to post-industry to heritage and (attempted) regeneration. They are all promoted as tourist attractions, using their temporal-spatial nature in a bid to bring about economic and social improvements. The material space of the four selected industrial WHSs was transformed during the Industrial Revolution of the eighteenth and nineteenth centuries, creating new meanings and identities for these places in the process. In the twentieth century loss of industry and economic depression resulted in parts of these areas becoming representative of post-industrial decay, with associated negative stereotypes. In all four of the selected sites, WHS status is being used to revive the economies of the associated towns and villages and to change perceptions of the areas through a reappraisal and re-evaluation of the past through heritage.

World Heritage Site Status and UK Industrial Heritage

To further illustrate why the selected case studies have been chosen, it is necessary to explain the context of World Heritage in respect of the industrial sites. WHS status is a prestigious accolade and, initially, sites were nominated for this reason alone or to benefit from increased expertise on heritage issues (Leask 2006, p.12). In recent years an increasing number of sites

have been nominated in order to reap potential economic benefits from WHS status (Leask 2006, p.12; PricewaterhouseCoopers 2007, p.10). The inscription of industrial WHSs during the 2000s reflects domestic political agendas concerning the role the legacy of industry in the modern economy and society (Hart and Johnston 2000, p.136). The first stage in the WHS nomination process is for the 'States Party' (i.e. a nation state that has ratified the World Heritage Convention) to select sites to be included on a 'tentative list', which it feels contains sites that potentially display OUV (Leask 2006, pp.8-9). The list is at the discretion of the States Party, rather than UNESCO and its expert bodies, and therefore the tentative list often reflects political imperatives (Leask 2006, p.8). In 1994 the World Heritage Committee, initiated its 'Global Strategy for a Representative, Balanced and Credible World Heritage List' which aimed to inscribe a wider range of sites onto the World Heritage List. The United Kingdom re-joined UNESCO in 1997 and published a tentative list of potential WHSs in 1999, its first list since 1986 (DCMS 1999, pp.4-5). The Labour government made a deliberate effort to include a range of under-represented properties on the list, most notably sites exhibiting industrial heritage:

These [proposed sites] include the impact of mankind on the landscape as a whole and our interaction with nature, as well as the inception and process of industrialisation which has changed and moulded the way in which all the peoples of the world now live. That process began here in Britain and it is right that it should be marked more prominently in the World Heritage List (DCMS 1999, pp.4).

The government noted that 'industrialisation is one of Britain's major contributions to the world' and selected 'outstanding sites' that bore witness to the United Kingdom's former industrial might (DCMS 1999, p.12). The Blaenavon Industrial Landscape was one of a number of industrial sites to be included on the United Kingdom's tentative list in 1999. Within a decade the Blaenavon Industrial Landscape, the Derwent Valley Mills, Saltaire, New Lanark, the Pont-Cysyllte Aqueduct and the Cornwall and West Devon Mining Landscape were all inscribed as UNESCO WHSs. These sites joined Ironbridge Gorge, the United Kingdom's first industrial WHS, inscribed in 1986. There is no coincidence that

industrial heritage has featured so strongly on the United Kingdom's tentative list. It reflects a political agenda, reappraising the significance of the nation's industrial legacy and an attempt to change perceptions of Britain's post-industrial towns through a re-evaluation and re-use of space.

Rebanks Consulting Ltd (2009) noted that recently inscribed WHSs were most likely to place socio-economic regeneration as a management priority. The research identified the Blaenavon Industrial Landscape and the Derwent Valley Mills as industrial WHSs 'that have from the start of the process had a clear socio-economic motive and a new perspective on using natural or cultural heritage as a key economic driver' (Rebanks 2009, p.19). From the outset, the aim of the Blaenavon Partnership in seeking and obtaining WHS status was to use the heritage assets of Blaenavon to achieve socio-economic regeneration and tourism:

The prime aim of the Blaenavon Partnership is to protect and conserve this landscape so that future generations may understand the contribution that South Wales made to the Industrial Revolution. By the presentation and promotion of the Blaenavon Industrial Landscape it is intended to increase cultural tourism and assist the economic regeneration of the area. (Blaenavon Partnership 1999b, p.50)

The desire to use WHS status as a positive socio-economic influence can also be seen in other industrial WHSs. The Derwent Valley Mills Partnership, in its WHS management plan, states that its overarching aim is to:

To conserve the unique and important cultural landscape of the Derwent Valley Mills World Heritage Site; to protect its outstanding universal value, to interpret and promote its assets; and to enhance its character, appearance and economic well-being in a sustainable manner (Derwent Valley Mills Partnership 2007, p.2)

Similarly, the Cornwall and West Devon Mining Landscape management, in its vision for the WHS, declares:

We believe that by protecting, conserving and enhancing the outstanding universal value of the Cornwall and West Devon Mining Landscape World Heritage Site it will reinforce cultural distinctiveness, and become a significant driver for economic regeneration and social inclusion. (Cornwall and West Devon Mining Landscape Partnership 2005b, p.2)

Ironbridge Gorge, one of the United Kingdom's earliest WHSs, has established itself as a popular visitor attraction which helps bring economic sustainability to the area. In 2010 the Ironbridge Gorge WHS attracted a record 567,000 visitors (Ironbridge Gorge Museums Trust Ltd 2010, p.5). The management note that one of its key objectives is to use WHS status 'to achieve appropriate regeneration of the WHS for all those who live in, work in and visit it' (Ironbridge Gorge Strategy Group 2001, s1.3.3). Economic enhancement and sustainability through the use of heritage and cultural tourism are therefore key objectives for WHS management in the selected sites.

The selection of these sites, using a replicable research methodology, was designed to provide a deeper understanding of the practice and impacts of digital tourism within the context of British industrial WHSs. Including a diverse range of case studies, chosen from the disparate World Heritage List, was considered likely to have increased the number of contrasts that could be made but it would also have increased the number of variables, which may have resulted in difficulties in the analysis and the identification of causal links.

4.3 RESEARCH METHODS

Within the case study research design, a variety of qualitative and quantitative methods were employed. The design was replicable and the same methods were typically employed within each of the selected case studies, with the option of replicating the method in further case studies. The following table summarises the methods that have been used in order to address the three research questions:

Figure 4.1. Allocation of Research Methods to Research Questions

Research Question	Research Method(s)
How and why are industrial World Heritage Site managers using digital technology to present their WHSs?	Content analysis of strategy/policy documents
	Content analysis of official WHS websites
	Content analysis of official WHS Facebook pages
	Qualitative interviews with WHS managers
What does the audience of the industrial WHSs expect from digital technology in a cultural heritage tourism context?	Qualitative interviews with selected service users
	Quantitative online survey/questionnaire
	Qualitative questions on online survey
	Virtual ethnography of online heritage communities
	Content analysis of official WHS Facebook pages
How and why does the use of digital technology impact on the relationship between industrial WHSs and their audience?	Content analysis of official WHS Facebook pages
	Qualitative interviews with WHS managers
	Qualitative interviews with selected service users
	Quantitative online survey/questionnaire
	Virtual ethnography of online heritage communities

This section outlines the rationale for utilising various methods and outlines how the research was practically implemented, along with ethical considerations relating to the methods.

4.3.1 Qualitative Analysis of Strategy Documents

The fields of digital inclusion, digital heritage and digital tourism are attracting increasing attention at policy level. In the three years in which this study has been undertaken new strategies have been devised and implemented on global, national and local level. Similarly, the academic literature on the subject is rapidly developing so the research had to be cognisant of the changing nature of the field in order to ensure the findings remained at the ‘cutting edge’. To this end, a policy, practice and literature review was conducted throughout the life of the project, ensuring that up-to-date strategic and theoretical developments in a wider context are evaluated as part of the research. The finalised version of these reviews can be seen in chapters two and three.

The fieldwork research also involved a qualitative analysis on documents specific to the implementation of digital heritage in each of the selected WHSs and examined how these approaches relate to the wider policy framework as set out in chapter three. The study incorporated public domain documents, made available by each of the management

organisations and typically include WHS Management Plans and other marketing or interpretation strategies relevant to the particular WHS, where available. As with the wider policy review, themes were identified and compared. The analysis of such documents provides some formal indication of the extent to which digital issues are viewed as priorities within the selected WHSs and allows for a comparison with the wider strategic context and practice being undertaken in the field. The themes discerned within the review of the policy documents were therefore used to inform, in part, the questions asked of WHS management in the qualitative interviews.

4.3.2 Qualitative Interviews with WHS Personnel

4.3.2.1 Rationale

The research attempted to facilitate understanding of the reasons why WHS management organisations engage in the practice of digital cultural heritage tourism. In order to address this issue, an interpretivist approach was employed to understand the motivations, objectives and preconceptions that WHS personnel have towards the use of ICTs within their respective WHSs. The most appropriate method to achieve this was to hold discussions with members of individual WHS teams, which was best accomplished through semi-structured qualitative interviews. Siedman (2013) advocates the use of interviews as a research method because they allow people to tell their own stories and provides a process in which people consider their own experiences, rationalise them in their own minds and then articulate them through words (p.7). Storytelling, Siedman argues, is a natural act of human communication and therefore engaging in verbal dialogue and enquiry is a useful way of discerning how people subjectively make sense of phenomena (2013, pp.7-8). Interviews were therefore held to allow individual participants the opportunity to explain their perspectives of the practice of digital tourism in their WHSs. This section explains the procedure for the interview, along with the interview schedule and explanation of how the interview questions relate to the overarching research questions.

4.3.2.2 *Formulation of an Interview Schedule*

The data generated from the interviews needed to be comparable with information provided in other interviews, both within the same WHS and the other case studies (Dawson 2009, p.28). Therefore, similar questions were asked in each interview to ensure comparability and, as far as was reasonably practicable, the questioning followed a predetermined schedule that contained specific questions (Dawson 2009, pp.28-29). This permitted a degree of consistency and focus, ensuring that all areas in need of discussion were addressed (Dawson 2009, p.71). A predetermined list of questions, as opposed to spontaneous questioning, also helped increase the confidence of the researcher and reduced hesitation or perceptions of uncertainty, thereby making the researcher appear professional towards the participant (Dawson 2009, p.71). Although a schedule was followed, there was enough flexibility and scope to adapt questions, follow new lines of enquiry and ask additional questions, if interesting or unexpected issues emerged during the dialogue.

4.3.2.3 *Sample Selection*

The participants selected for interview were actively working, or have had experience, in the formulation or implementation of digital heritage tourism strategy or practice within the selected WHSs. This included the nominated WHS Co-ordinators, who are responsible for overseeing all aspects of the management of a particular WHS. The co-ordinators are responsible for ensuring the implementation of the World Heritage Convention within their site. As part of their obligations to UNESCO, sites are expected to present their 'outstanding universal value'. In practice this includes the delivery of education and the marketing, promotion and interpretation of the WHS as a tourist attraction. Therefore, wherever possible attempts were made to interview officers responsible for overseeing the holistic strategy of a WHS, as well as officers responsible for delivering education, interpretation, marketing and promotion programmes.

In the first instance, the nominated WHS Co-ordinator for each site was approached by email, explaining the rationale of the project and its aims and objectives. A request for an interview was made. The WHS Co-ordinator in each case was invited to act as a ‘gatekeeper’ and to nominate other appropriate officers for interview, particularly those with responsible for education, marketing and the implementation of the site’s digital heritage or tourism offer. Where available, individual officers were then approached.

With two exceptions, all officers approached were willing to be interviewed. Interviews were held with the following officers in 2013:

Table 4.1. Details of WHS Personnel Interviewed within this Study

Name	WHS	Responsibilities at the time of interview	Date and Place of Interview
Rebecca Hartley	Blaenavon Industrial Landscape	Strategic direction of the WHS, WHS Management and Co-ordination, responsible for Blaenavon World Heritage Centre visitor interpretation centre. Responsible for WHS information on the Visit Blaenavon website.	24 April 2013, private office, Blaenavon World Heritage Centre
Adrian Farmer	Derwent Valley Mills	Heritage Co-ordinator for the Derwent Valley Mills. Was responsible for establishing the site’s first website. Role includes strategic planning and community engagement.	3 May 2013, outside Derby Silk Mill, Derby.
Anonymous	Ironbridge Gorge	Tourism and marketing in the Telford and Wrekin county, including the management of the Visit Ironbridge website	5 June 2013, Telford and Wrekin Civic Centre
Anonymous	Ironbridge Gorge	Strategic planning in the Ironbridge WHS, including participation on the site Steering Group.	5 June 2013, Telford and Wrekin Civic Centre
Deborah Boden	Cornish Mining	WHS Co-ordinator for the Cornish Mining WHS with strategic responsibility for the site, including the ‘Explore the Extraordinary’ website.	12 June 2013, in a private office at Cornwall Council County Hall, Truro
Ashleigh Taylor	Blaenavon Industrial Landscape	Community Heritage Development Officer for Torfaen County Borough Council with responsibility for developing educational and interpretive resources for the WHS	24 June 2013, private office at Blaenavon World Heritage Centre

At the outset, it was anticipated that a greater number of interviews would have been made. It became apparent through discussions and correspondence with the WHS managers that the staff resource for these sites is somewhat limited, typically with small teams of multidisciplinary officers carrying out different roles within the WHS. The remit for overseeing digital strategy is often with the co-ordinator or other nominated officer. Although, seemingly a small sample, it is representative of the staff involved in delivering the digital strategies in these selected industrial WHSs.

4.3.2.4 Implementation of Interview

Whilst the use of a schedule provides uniformity and consistency within the research, there was also a risk that it could introduce a degree of rigidity. Therefore, the interview schedule was amended after each interview to take into consideration new issues and perspectives that emerged during the interview (Dawson 2009, p.29). If an interesting and unexpected issue was highlighted by an officer within a certain WHS, questions relating to this issue could then be asked to officers within another WHS. Most of the participants were willing to take part in follow up research if requested, therefore any queries or further questions could be made to them, if necessary.

Audio digital recordings were made of each interview. This allowed the interviewer to concentrate purely on what was being said by the participant, permitted greater levels of eye-contact and rapport-building and provided a complete and accurate record of what was said, which aided the creation of transcriptions, quotations and the subsequent analysis (Dawson 2009, p.67). There was a risk that the recording equipment could have failed to work during the interview or that the digital file may become corrupted. This potential problem was avoided through the testing of equipment at the start of the interview, such as recording a statement and then immediately playing it back. The researcher also ensured he was fully confident and competent with the recording device before the interviews were conducted; this included making sure that the audio files were readable by the researcher's computer

software. Handwritten notes were also taken, in respect of significant or interesting points made by the participant as this provided a back-up should the audio recordings have failed (Dawson 2009, p.67). A full transcription of each interview was made as soon as possible to allow for interesting points to be identified and incorporated into subsequent interviews if necessary.

The needs of the participant were deemed to be important, as if he/she felt at ease the chances of useful results were likely to be more forthcoming. The interviews took place in a space decided upon by the participant, in which they were comfortable and familiar. This was typically a private office or meeting room within the premises of the WHS management organisation. Rapport had to be established with the participants. To achieve this, the interviews were not rushed. Time was spent with the participant in advance of the recording and the researcher accepted offers of refreshments, where appropriate. Communication with participants in advance of the interview, whether through email, telephone or in person, allowed for the building of rapport and for an explanation of the project to be given. Therefore, both the researcher and participant were more likely to feel comfortable during the interview. The researcher was conscious of appropriate attire for all interviews to ensure that an impression of professionalism and respect was maintained and to reflect the identity and appearance of the smartly dressed local government officers who were interviewed (Dawson 2009, p.73). An appropriate time and length of interview and meeting was agreed with the participant in advance, which did not exceed more than two hours in any case. This ensured that fatigue among both participant and researcher was avoided.

4.3.2.5 Ethical Considerations

As outlined above, the researcher had a pre-existing relationship with the personnel at the Blaenavon Industrial Landscape WHS as a consequence of PhD funding arrangements. The transition of the researcher from a research placement student to an interviewer is likely to result in a temporary shift in the power relationship between the two parties, which had

potential to cause unease for all concerned and impact upon the quality of the interview. Therefore, it was important that the researcher ensured that the participants were fully aware of the purpose of the interview, its aspirations towards objectivity and the interview procedure. The fact that the research may pose challenging questions to the participants' organisation had to be made clear. The use of multiple case studies also helped ensure that any bias shown in the research with the Blaenavon WHS was mitigated.

It was not anticipated that the research would involve any physical risks to the health and safety of the researcher or the participants. Recognition that the research related to people's lives, work and careers necessitated that the project had to operate ethically to ensure that risks to the financial and psychological well-being of participants were minimised. All participants were capable of giving informed consent and had to sign consent forms before the interviews were conducted. This form also gave an option not to be named within the report. An information sheet was produced and provided to all participants prior to interview. Separate sheets were produced for both the service-providers (i.e. containing more information relating to WHS management) and service-users (i.e. more focused on the potential benefits to tourists). Providing this information enabled participants to be aware of the purposes of the research and of any benefits or risks to them and/or their organisations.

Copies of the information sheets and consent forms to be given to the participants in advance of the research are provided in Appendices B and C.

4.3.3 Qualitative Interviews with Service Users

4.3.3.1 Attempts to Arrange Focus Groups with Families

Through the analysis of the strategy documents and the interviews with the WHS managers, it became apparent that WHSs attempt to appeal to numerous audiences in respect of their marketing, interpretation and visitor experience. An understanding of how disparate audiences engage with digital technology in the cultural heritage context was necessary so an exploratory stage of the research was planned. The original intention was to undertake a

series of focus groups with the family market in the WHSs, thereby developing a greater understanding of people's use, or non-use, of ICT within the cultural heritage tourism context. A multigenerational approach would also have presented the opportunity to understand differences in ICT usage between the generations. Advertisements through flyers and posters, as well as direct approaches to visitors at the Blaenavon World Heritage Centre, were made over a period of approximately two months during the spring of 2013. With the consent of the Blaenavon WHS management, the front of house staff handed out flyers advertising the focus groups to the various families who were visiting the site. Leaflets were also distributed within the World Heritage Centre café, at children's activities taking place at the attraction, and, with the permission of the head teacher, at the reception of the local primary school.

Despite this, the response rate was lower than anticipated. The tourists, in particular, were not willing to disrupt their visit to take part in a research project, especially if they were on a tight schedule. Although some families took the flyers and stated they would consider participating in the research at a later date, they generally did not contact the researcher in regard to this. Of the three families who did respond, the age of the children tended to be inappropriate for the study, typically being aged between three and six years. It was therefore considered that the focus group approach would be inappropriate for participants at such a young age. The risk of boredom and restlessness, as well as the issue that some participants may have been too young to understand the nature or purpose of the research, meant that the data generated from the focus groups may have been compromised. It was therefore decided that the approach should be abandoned in favour of a series of qualitative interviews with selected service users.

4.3.3.2 Selection of Participants

As an alternative to the focus groups, attempts were made to find a small but varied sample of service users with whom it would be possible to discuss their usage of ICT in terms of

heritage and tourism. Two of the participants were selected from the aborted focus group sample and further visitors in various age groups were approached via the Blaenavon World Heritage Centre, where each of the interviews took place. The implementation of the interviews and consent procedure was the same as the interviews held with WHS managers, detailed above. In the case of the service users, however, it was felt that there was no need to include the name the individuals in the report, so each of the participants was anonymised and provided with an appropriate pseudonym.

An interview schedule, consisting of open-ended questions, was followed, allowing the participants to discuss their use of digital technology within heritage, tourism, leisure and information-seeking situations. This exploratory element of the research helped aid understanding of how ICT impacts on aspects of people's lifestyles. Elements from the various WHS websites and digital strategies, such as apps and virtual tours, were also incorporated into the sessions to aid discussion and to ensure relevance to the WHSs.

Although the sample size was relatively small, it was not intended to be a scientific, representative sample of all of the visitors to the WHS. Livingstone (2009) noted that even a small selection of case studies, although not necessarily typical or representative of wider populations, can provide a useful way of understanding the personal qualities of Internet usage by individuals (p.41). The diversity and synergies in peoples' Internet use could be discerned from the interviews and raised questions about usage within virtual environments, which were subsequently explored through the quantitative online survey.

Table 4.2. Details of Participants in Qualitative Interviews (Service Users)

Name	Age Group (years)	Occupation/Background	Residence	Date of Interview
Peter	66-74	Retired teacher; educated to postgraduate level. Two adult children.	Monmouthshire, south Wales	9 August 2013
Mary	36-45	Retail/Clerical. Mother of three children.	Torfaen, south Wales	10 August 2013
Polly	16-25	University student. No children.	Caerphilly, south Wales	16 August 2013
William	16-25	Maintenance engineer. No children.	Torfaen, south Wales	9 September 2013
Julia	36-45	School teacher; educated to postgraduate level; mother of two young children	London, England	29 August 2013
Maureen	56-65	Retired. Two adult children.	London, England	31 August 2013

Shortly after the recording, the interviews were transcribed, coded and analysed thematically. It became clear, at an early stage, that rich qualitative data had been generated. It was also evident that there was much diversity in people's use of digital technologies, with issues such as digital inclusion being particularly pertinent. The range of responses in even a small interview sample identified a need to focus on a more specific element of the cultural heritage audience, namely current users of digital heritage tourism. It was considered that this would generate useful data for the project partner in relation to how digital technologies are currently being used in a cultural heritage context. The online questionnaire was designed to target this segment of the audience.

The qualitative data highlighted the issue of digital inclusion and the disparities that now exist within the audience of cultural heritage tourism in respect of the use of digital technologies. Indeed, 'digitally excluded' participants within the sample demonstrated a strong interest in heritage tourism. They were clearly within the 'traditional' demographic audience of industrial heritage, which each of the industrial WHSs recognises as a key market segment. The interviews were therefore used as an important 'check' when analysing

the data from the quantitative survey, which only focused on a digitally included sample. This qualitative data provided a reminder that certain segments of the audience of cultural heritage tourism do not embrace digital technologies, prompting a cautious analysis concerning the applicability of the survey findings to a wider population.

The variety of experiences identified within the qualitative interviews also highlighted that levels of digital inclusion exist on a spectrum and there are significant differences in usage even among a digitally included sample. The online survey was therefore deployed to provide a greater, quantitative insight into people's usage of digital technologies. Questions asked within the interviews, relating to devices used and the uses of technology for heritage or tourism purposes were incorporated into the online questionnaire accordingly and allowed for comparisons and the identification of trends among a larger sample.

The survey provided quantitative data concerning the types of devices people owned and used; the uses people made of digital technologies in a digital heritage context; and people's use of technologies or innovations such as QR codes, augmented reality, bespoke apps, on-site digital displays etc. during a corporeal visit to a heritage tourism site. Such behaviours and usage could then be analysed in relation to demographic information, including age, sex or educational attainment. Moreover, the importance of qualitative insights within this digitally-included audience was also recognised and a series of open-ended questions were added to the survey. The results were subsequently analysed in conjunction with the qualitative responses to the interviews.

4.3.3.3 Sampling Issues in Respect of World Heritage Site Research

As discussed above, the interviews with the service users revealed diversity in people's online activities and varying levels of digital inclusion, especially in regard of usage. To some of the participants, the digital had assumed a ubiquity within their everyday lives whereas others made little or no use of ICT. Due to the heterogeneous nature of the audience of cultural heritage tourism, there are likely to be significant differences in digital inclusion,

as indicated by trends within the wider population explored in chapters 1-3. An attempt to quantitatively assess the state of digital inclusion among the visitors to these industrial WHSs could have been made but such an approach would have been beset with problems in respect of reliability and, in any case, may have done little to develop knowledge in respect of the qualities of people's experiences of digital cultural heritage tourism.

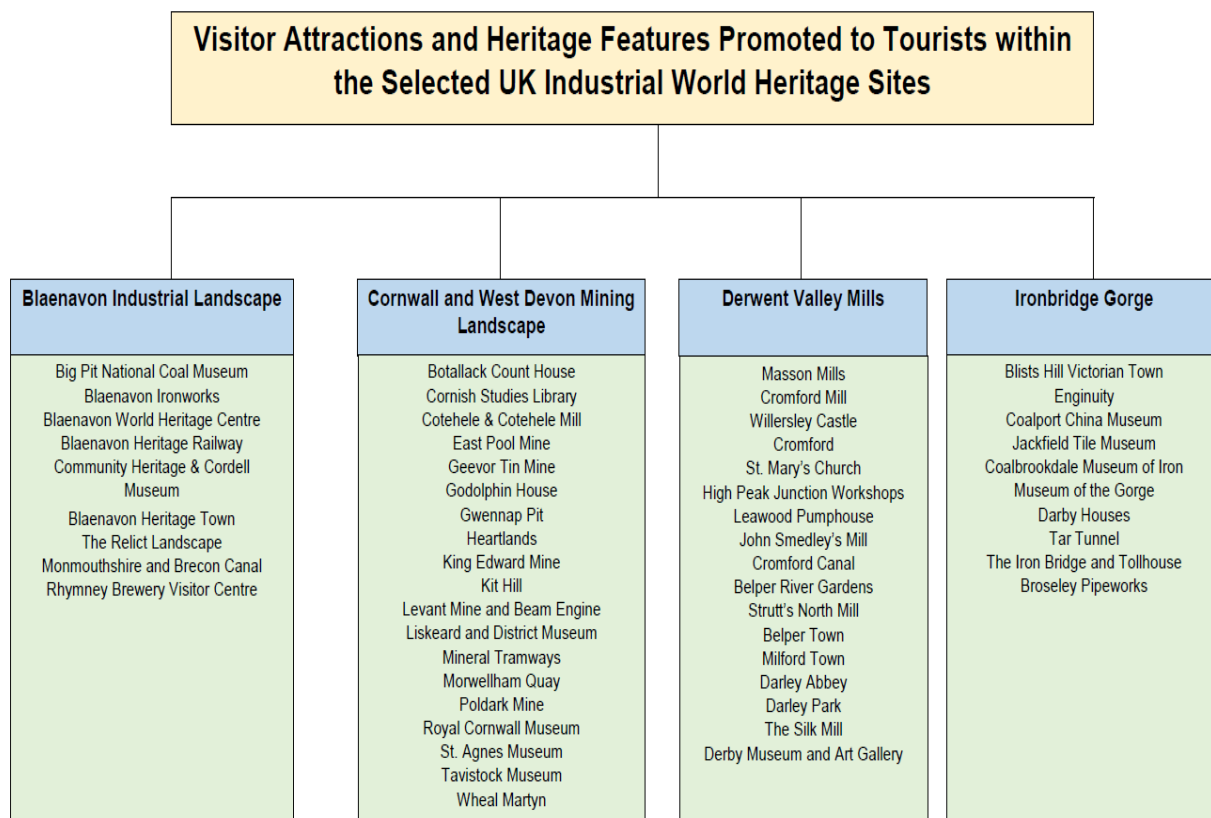
Visitors to tourist destinations form part of a shifting population as new visitors are constantly arriving and departing. The demography of the visitors is also in flux as people from all age groups and a variety of socio-economic backgrounds may be visiting at any given time. Variations in demographics are likely to be seen during different times of the year. For instance, it is possible there will be larger number of families with children visiting during the summer months, especially within the school holidays, whilst there would be comparatively few such groups visiting during weekdays in the winter months. Therefore, the sample is likely to vary depending on the time of the year in which the research was conducted. In terms of the individual respondents to the surveys, due to this shifting population, it is difficult to create a probability sample.

The research also covers four WHSs, which each have a large number of visitor attractions within them. Each of these are tourist attractions in their own right, appeal to certain market segments and, despite often forming part of the WHS Management Partnerships, each typically out their own visitor management, branding, marketing and promotion.⁷ The diagram below illustrates that there are no fewer than fifty-five diverse visitor attractions dispersed across the four selected World Heritage Sites. Due to restraints on time and resources it was not feasible for a single researcher to conduct surveys at each of the fifty-five tourist attractions. Selecting certain attractions was a possibility but the problems of a

⁷ The Ironbridge attractions are an exception, with management of ten museums being managed by the Ironbridge Gorge Museums Trust.

shifting population and variations in the market appeal of the various attractions would have been likely to cause difficulties and problems concerning reliability.

Figure 4.2: Heritage-Tourism Visitor Attractions within the Selected UK Industrial WHSs



To examine the qualities of current practice and potential future developments, a combination of qualitative and quantitative research was carried out with ‘digitally included’ service users who are already active in virtual spaces associated with the four WHSs.

4.3.4 Research in Virtual Space

4.3.4.1 Rationale

The rapid increase in the use of ICTs since the 1990s, particularly the rise of the World Wide Web and, more recently, social networking sites, has crucial relevance to this study. Emphasis has been made throughout this thesis that the Internet is a temporal-spatial phenomenon and reference has been made to the notion of the World Wide Web as a virtual and liminoid space, in which ‘real’ people can carry out a large range of ‘real’ activities. The

web provides a rich space in which it is possible to conduct research and also provides new tools through which these studies can be made. Indeed, Waterton (2010) notes the opportunities presented by the Internet for research into the heritage industry by utilising methods including online ethnography and online questionnaires (p.7). The web also presents opportunities to carry out research into ‘novel or marginal’ aspects of social interaction in specific contexts (Lee et al 2008, p.12). This thesis considers the ways in which people’s use of virtual space impacts on the practice of cultural heritage tourism both for the managers of WHS and their audiences. Suitable methods for researching activities within this virtual space have therefore been identified.

Everyday activities are now taking place on the web, complementing, altering or replacing activities taking place in actuality. This changing pattern of human behaviour presents questions over how the online and offline interrelate (Thelwall 2013, p.69). From the 1990s, there was initially an obvious separation between the research of online and offline environments (Jensen 2010, p.44). Digital research, however, has gradually distanced itself from the artificial dichotomy between digital virtualities and the actual, acknowledging the strong association between the two elements (Thelwall 2013, pp.69-70). Internet research has gone beyond conceiving the user in purely virtual terms and should instead examine its role in people’s everyday lives and activities (Bakardjieva 2010, p.59). Indeed, the virtual needs to be understood in the context of actuality (Gillan et al 2010, p.226). The Internet and digital technologies now have a presence in very many areas of life. The needs, challenges and experiences of these settings may therefore impact on practices and experiences within the virtual (Gillan et al 2010, p.226).

People’s use of digital technologies in socio-cultural contexts such as a personal, recreational or organisational setting warrant exploration (Bakardjieva 2010, pp.59-60). The impacts arising from the use of digital technologies within these contexts can be explored through traditional methods employed in these disciplines (Hunsinger et al 2010, pp.xxi-xxii). Jensen

(2010), for example, notes that traditional research methods still have relevance in Internet studies, as the behaviour of human beings is a vital element in respect of their Internet use. Furthermore, the Internet does not exist in isolation and the persistence and continuation in usage of older media forms still have relevance in a digital context (p.44). This thesis therefore does not lose sight of actuality, from which people access the virtual through their digital devices. Traditional methods, such as interviews and analysis of strategy documents outlined above, were carried out to ensure that the ‘real-life’ context of digital activity was explored and recognised within the context of digital tourism in WHSs. Yet, to fully understand the processes involved, it is necessary to move the research into the ‘space’ in which the phenomena is actually taking place. To undertake this study, modified versions of traditional methods, such as survey research and content analysis, were employed along with Internet-based approaches such as online ethnography. Even with the online research, however, particularly the questionnaires, attempts were made to explore the ‘real world’ contexts in which digital engagement takes place.

4.3.4.2 Online Questionnaires

The need to obtain some quantitative understanding of people’s Internet use in respect of digital heritage tourism was identified in order to triangulate the research and not to utilise qualitative data alone. The questionnaire was designed to balance both the academic needs of the project, as defined by the overarching research questions, but also to gather statistical data that will be of value to the partner organisation. The questionnaire was developed based on the themes identified through the interviews but a copy was also sent to the Blaenavon WHS Co-ordinator for comment. This ensured that the questions being asked were consistent with the needs of the partner organisation.

An online questionnaire was built using ‘Bristol Online Surveys’. Links were distributed within a number of online spaces associated with the selected WHSs, inviting interested users to respond. The online spaces targeted were the Facebook pages and communities

managed by the WHS management organisations, the official pages of the tourist attractions within the WHSs and groups established by individuals or local communities to discuss heritage and history in the WHS area. The use of online questionnaires restricted the sample to people who have access to the Internet and are among the virtual audience of the WHSs. Such an approach ensured that the respondents to the survey were from a digitally active sample and allowed for an understanding of the usage and perspectives of people who actually use the virtual space. It is, however, important to take into consideration that, as indicated by the qualitative interviews, there are perhaps many people in the audience of WHSs who are not currently using digital technology in a cultural heritage or tourism context. Therefore, the data generated from the questionnaires alone does not reflect the full picture of audience engagement and usage with digital technologies.

The questionnaire consisted of a combination of closed-ended and open-ended questions. The closed-ended responses produced statistics that were used to provide quantitative evidence of online service users' Internet use, interests and demographic backgrounds. At the analysis stage, this allowed for an understanding of people's needs in relation to their demographic characteristics. The open-ended questions provided scope to obtain further qualitative data from the service user perspective, which could be used to complement the data derived from interviews. It allowed for the elaboration of opinion and provided opportunities for people to suggest improvements to the WHS web strategies.

The survey was open between 18 September 2013 and 3 November 2013 and 129 responses in total for the survey were made (with 105 completing all three sections). The majority of the responses were made during the first few weeks of the survey, with diminishing returns towards the end of the survey period. The managers of certain pages such as 'Visit Blaenavon', 'Belper and Proud' and the Blaenavon Community Heritage and Cordell Museum reposted and shared the link to the survey on their pages, thereby boosting the exposure of the survey among those online audiences.

129 respondents completed the first section, providing demographic details such as sex, age group, highest level of formal educational attainment, place of residence and occupation. Such responses helped build up a profile of the digitally active people who are using social media sites to engage with cultural heritage and tourism. Additionally, questions were asked related to the ownership of digital devices and the most commonly used of these Internet-enabled devices. 123 of the respondents completed the second section, which asked more specific questions about the use of digital technology in a tourism context, with 105 of these completing the final section that related to digital technology in a heritage context.

4.3.4.3 Content Analysis of Websites

Websites, webpages and social media form rich data sources and provide examples of how virtual space is being created, 'occupied' and given meaning by both service users and service providers. Such content provides material for both qualitative and quantitative research (Bryman 2012, pp.654-655). A content analysis of official WHS websites was therefore undertaken to analyse how the web is being used by the selected sites and how this relates to service user expectations, management expectations and wider policy imperatives.

Krippendorff (2004) argues that content analysis is an important social science research technique in that it 'views data as representations not of physical events but of texts, images and expressions that are created to be seen, read, interpreted and acted on for their meanings and must therefore be analysed with such uses in mind' (p.xiii). Similarly, Hall and Valentin (2005) state that 'content analysis is an observational research method that is used to systematically evaluate the actual and symbolic content of all forms of recorded communication' (p.191). The methodology is useful in the respect that it is unobtrusive and allows for an understanding of the meanings behind text, communications, technology and symbols (Krippendorf 2004, p.xiii). Content analysis is not just about the quantification of data, it can be used to examine social phenomena through analysing the meanings of texts and images (Krippendorf 2004, p.xiii). Krippendorf argues that the process of digitisation

means that many texts are now available in a digital form, which aids computer-aided text analysis (2004, p.xiii). The growth of new media, delivered through digital channels, means that content analysis is being increasingly used as a method of examining the meanings behind the content of websites and other online communication media (Hall and Valentin 2005, p.191). Hall and Valentin (2005, p.194) note that relatively little content analysis has yet been conducted on tourism websites, despite their importance for information flows within the industry.

The websites which were analysed are as follows:

- Blaenavon Industrial Landscape - www.visitblaenavon.co.uk
- Cornwall and West Devon Mining Landscape - www.cornish-mining.org.uk
- Derwent Valley Mills - www.derwentvalleymills.org
- Ironbridge Gorge - www.ironbridge.org.uk / www.visitironbridge.co.uk

The rapidly shifting nature of the World Wide Web makes it a difficult area to research (Ellison and Boyd 2013, p.152). The technologies of websites and social network sites change rapidly, thereby making it complicated to carry out research within this online space. The timescales involved in academic processes means that the research subject at the time of the study is likely to have changed considerably by the time of publication (Ellison and Boyd 2013, p.165). In the case of social network sites, new functions may be added or removed at the whim of the social media managers (Ellison and Boyd 2013, p.166). Due to the rapidly changing nature of the World Wide Web the researcher was conscious that the websites were likely to evolve, perhaps substantially, throughout the course of the research. References to website content and web pages are likely to become out of date relatively quickly, in a way that references to traditional, 'static' documents do not (Bryman 2012, pp.654-655). In order to mitigate this, the dates on which the analysis was conducted were recorded and detailed within the findings chapters, also, PDFs of the various webpages were captured and stored, using NVivo10 to ensure that records of the source material were maintained for analysis. The state of flux that exists within the online space was also

pertinent to the study so any major alterations to the WHS websites during the research period were noted and analysed, as such activity could be indicative of changing attitudes to digital tourism by the management organisations.

4.3.4.4 Online Ethnography

As online digital tourism is networked, it is necessary to conduct research within those networks, analysing the communications between the participants who may be geo-spatially dispersed across the globe. Online discussions and interaction in a heritage context would provide useful data for understanding people's use of online space and was therefore considered within the methodology. Ethnographic research examines cultural values, beliefs, attitudes and behaviours in a specific social grouping. Ethnographers attempt to immerse themselves within a social environment, observing and participating in activities taking place within it. In addition to interviews and document analysis, the researcher's own observations, thoughts and perspectives are recorded (Merriam 2009, p.28). Hine (2000), in a study of online activities concerning the Louise Woodward trial, argues that 'an ethnography of the Internet can look in detail at the ways in which the technology is experienced in use' (p.4). In a subsequent contribution, Hine notes that with the development of the web since 2000, a variety of new social spaces have been formed, creating rich and diverse materials for online ethnographers to research. Massively Multiplayer Online Games have been subjected to virtual ethnography as have social networking websites (2008, p.260). Hine states that virtual ethnographies have consisted of both passive online observations but also more active engagement (2008, p.257).

Hine warns against 'lurking' on these websites, as it is possible that too many assumptions will be made without having the full experience of being an active member within the online community. To do this, however, a new set of skills may be required in order to be an active and contributing member of that community. For example, within a gaming community the

researcher would need knowledge, skills and experience of the games under discussion (Hine 2008, p.263).

This research, in addition to examining the official WHS websites, sought out websites, forums, social media and online communities related to each of the selected WHSs. Discussions related to the WHSs were identified and the practices taking place within them were observed and key themes were identified. The latest three hundred posts in each of the official WHS Facebook feeds were initially read in order to identify emerging themes, which were subsequently defined. When these themes were identified a second analysis of all of the posts was made, in which each post was coded according to the following categories:

Table 4.3: Definitions of Themes Identified in Content Analysis of WHS Facebook Feeds

Theme	Definition
Events	The promotion of events or activities within or in close proximity to the inscribed WHS. This includes post-event publicity such as the uploading of images relevant to a specific event.
Profile Raising	This includes attempts to promote the WHS generally (i.e. not specific events), bringing attention to media coverage of the site or news stories or press releases which the site management wish to share.
Presenting the significance of the WHS	This includes information about why the area is inscribed as a WHS, aspects of the site's history or OUV. This can also include photographs of the components of the WHS whether historical or present day.
Invitations for Participation	Invitations for participation in the management, interpretation or presentation of the WHS. This includes posts inviting people to have their say in consultations regarding the WHS or to share their memories about the WHS, or even simply asking visitors for feedback about their experience of the WHS.
Promotion of Tourism Businesses	Posts that provide details of accommodation providers, gift shops, places to eat, including special offers and competitions to promote such businesses.
Service Updates	Posts to inform people about changes to services such as opening times, strikes, potential disruption, traffic issues, weather problems etc.
Promotion of other groups or causes	Not all of the posts on the social media feed are necessarily to do with the WHS. Other online groups or Facebook pages may be promoted or 'good causes' which the WHS is inclined to support or promote.
Responses to Enquiries or Complaints	Direct enquiries or even complaints may be posted on the social media pages. The site management may respond to such posts publicly, online.
Miscellaneous Social Comments	Comments or posts may be of a social nature i.e. just general chat, social pleasantries, talking about the weather etc.

The researcher, a keen local historian with genuine interest in the content under discussion, decided to become an active participant within the online communities associated with the Blaenavon WHS, uploading content, sharing information, and 'liking' or commenting on the content produced by others. This was to ensure that the researcher had the full experience of being an active member of an online group.

The nature of Internet research has also raised ethical challenges. Except where invitations to participate in online surveys were made, the researcher did not explicitly state he was engaged in an ethnographic study. This approach may receive criticism for being somewhat covert but the research was designed to have ecological validity. By making people aware that they are being observed may inhibit interaction and compromise the unobtrusive element of the research (Eynon et al 2008, p.31). Ethically, two key concerns must be addressed by Internet researchers, namely the issue of whether the web is a public or private space, and whether there is a necessity to obtain informed consent from people when conducting research on content they have publicly posted online (McKee and Porter 2009, p.1).

Social media sites have options incorporated within them that allow the users to restrict their information and content to selected users. The decision to make the information publicly viewable it is therefore with the user (McKee and Porter 2009, p.2). Whilst this content is generally accessible by the public, often in perpetuity, and seemingly available for researchers to examine, caution should be exercised. There is an ongoing debate over whether the notion of the 'public' in the offline world is the same as 'public' in the online world as it is debatable whether people fully appreciate the implications of publishing content online (Eynon et al 2008, p.39).

At the time the data collection was carried out, all of the virtual communities were ‘open’ and publicly viewable.⁸ Anonymised data about Internet usage does not generally pose ethical problems (Eynon et al 2008, p.31; McKee and Porter 2009). This research only utilised data that had been made publicly available and held that if an individual posts information onto a public forum, this reduces the obligation on the researcher to seek informed consent (Bryman 2012, pp.679-680). Nevertheless, the researcher still took all reasonable steps to maintain the confidentiality of the poster and refrained from naming any individuals or quoting specific posts that could easily be used to identify a person via a search engine (Hine 2008, pp.265-266). Nevertheless, the context of the research, namely digital tourism in the context of industrial World Heritage, is unlikely to generate hugely controversial debates in which a person’s reputation could be damaged. The research in this area is rather to look at the wider functions and purposes that these virtual spaces take and to examine the types of interaction and content dissemination that take place within them. It is not so much about looking at the behaviours of specific individuals, it is rather about viewing how special-interest virtual communities function. Therefore, it is considered that the risk to participants was negligible.

4.4 CONCLUSION

This chapter has outlined the methodology that was employed to explore the relationship between the audience and provision of global digital tourism in UNESCO WHSs. The research took an inductive and interpretivist approach, albeit with some deductive elements, to answer the three overarching research questions. The biases and preconceptions of the researcher were made explicit and steps were prescribed to overcome or reduce such

⁸ As of late 2014, a change of policy within the ‘Blaenafon Past and Present’ Facebook Group changed the group’s privacy status from public to ‘closed’, meaning that non-members are unable to post or view content on the site. The researcher’s membership of the group was retained but no data collection was carried out with this group after the policy change. More generally, this is indicative of the somewhat precarious and changeable nature of these online groups and communities, where the direction and experience of a virtual community can be altered or possibly closed down on the decision of individual administrators. It also illustrates the difficulties of conducting research in virtual spaces.

partiality from the research process. A combination of qualitative and quantitative research was utilised and the rationale and implementation for each has been explained in this chapter, along with a discussion of the ethical considerations involved. This chapter has also explored the ways in which the research was applied to the needs of the project partners and funding organisation and explains the ways in which the relationship was managed to ensure that the research has made an original contribution to knowledge and has generated findings that are applicable to the needs of the cultural heritage industry.

5 THE STRATEGIC INFLUENCES AND CURRENT PRACTICE OF DIGITAL CULTURAL HERITAGE TOURISM IN INDUSTRIAL WORLD HERITAGE SITES

5.1 INTRODUCTION

This chapter presents the analysis of data generated through the qualitative content analysis of the selected World Heritage Site (WHS) websites, policy documents and qualitative interviews with WHS personnel. It outlines the strategic position and significance of digital heritage and tourism in the organisations involved in managing WHSs; the influences on the development of digital heritage and tourism strategy; and provides an overview of current practice in the field across the WHSs. It provides an in-depth assessment of the aims of the WHSs in utilising digital technologies.

5.2 CURRENT DIGITAL STRATEGY WITHIN THE SELECTED SITES

A study of digital cultural heritage tourism strategies is immediately disadvantaged by the absence of formal documents in the area. None of the selected WHSs featured within this research project currently follow a specific, written digital heritage tourism strategy.⁹ In itself this absence is indicative of the relative infancy of digital heritage and tourism within the cultural heritage industry and the policy context. This is not to say, however, that little or no activity is currently taking place within this area among the selected sites. WHS management plans, which direct WHSs in meeting their obligations under the 1972 UNESCO World Heritage Convention, are regularly reviewed by the site co-ordinators and provide an understanding of the changing and increasing significance of the digital within the operation of WHSs.

⁹ The CMWHS developed an ICT strategy in 2005 but this went beyond the uses of digital technology for cultural tourism. This strategy is to be reviewed during the lifespan of the 2013-2018 Management Plan. In the DVMWHS the co-ordinator did not envisage that a digital strategy would be developed in the near future. The BILWHS is open to the idea of a dedicated digital strategy but has yet to make progress in this regard. Digital tourism in the Ironbridge Gorge, from the perspective of Telford & Wrekin Council, is delivered as part of a wider marketing strategy in which the WHS plays just a part, albeit a significant one.

The original management plan for the Blaenavon Industrial Landscape (1999) made no consideration of the potential of digital technology in the site's marketing and management (Blaenavon Partnership 1999a and 1999b). Limited reference to the potential of digital technologies was also made in the Derwent Valley Mills draft management plan in 2000, which suggested that a website could be used as a repository to co-ordinate, and make accessible, information and research held at various locations (DVM Partnership 2000, p.34). The situation was similar in the Ironbridge Gorge WHS when it was producing its management plan in 1997; the only uses identified for digital technology were limited to the recording of site data through Geographic Information Systems (Ironbridge Gorge WHS Strategy Group 1997, p.16).

In the years since 2000, the selected WHSs have all shown increased awareness of the potential of digital technologies and the reviews of the WHS management plans have reflected this, as WHSs have introduced ICTs and websites into their daily operations (Blaenavon WHS Partnership 2012, p.45). The establishment of a website was regarded as one of the Derwent Valley Mills WHS's key achievements between inscription in 2001 and 2007. Its subsequent development, the creation of e-learning materials and the introduction of social media have been cited within the latest management plan as advancements in the promotion of public awareness and access to the site in the period 2007-12 (DVMWHS Partnership 2013, pp.22-24).

5.2.1 Emergence of WHS Websites and Social Networking Pages

Ironbridge Gorge, which in 1986 became the first of the selected case studies to be inscribed as a UNESCO WHS, was also the first of the sites to establish a web presence, with its original [visitironbridge.ws](http://www.visitironbridge.ws) website being launched by Telford & Wrekin Council in the late 1990s to provide visitor information and promotion of the WHS as a visitor destination (Telford & Wrekin Council, 5 Jun 2013). Both the Blaenavon WHS and the Derwent Valley Mills WHS, inscribed as UNESCO WHSs in 2000 and 2001 respectively, launched their

first websites in 2005. The Cornwall and West Devon Mining Landscape had a website even before it was inscribed as a WHS in 2006 but a new website was created in 2011 as part of its ‘Discover the Extraordinary’ scheme (Cornish Mining 2011). Indeed, each of the websites has undergone a process of renewal since the original sites were launched.¹⁰ The websites are not static and, in addition to regular content updates, are periodically reviewed and considerably upgraded to reflect the changing opportunities offered by technological developments.

Each of the WHSs is now using social media, all joining the social networking site Facebook between 2010 and 2011 and Twitter between 2009 and 2012.

Table 5.1: Dates that Selected WHSs joined Facebook and Twitter

WHS	Facebook (est. 2004, membership opened to all, 2006)	Twitter (est. 2006)
Ironbridge Gorge Museums Trust	28 Jan 2010	1 Apr 2009
Visit Ironbridge	25 Jun 2010	16 Feb 2011
Blaenavon WHS	24 Jan 2011	15 Mar 2011
Derwent Valley Mills	5 Apr 2011	6 Dec 2011
Cornish Mining	1 Aug 2011	10 July 2012

Table 5.2: Chronology of WHS Digital Development

Stage One (c.2000-c.2005)	Development of a Web Presence
Stage Two (c.2005-c.2010)	Consolidation and Refinement of Websites
Stage Three (c.2009-c.2012)	Introduction of Web 2.0. Technologies
Stage Four (c.2010-present)	Refreshment of Websites (including the incorporation of Web 2.0)
Stage Five (c.2012-present)	Smartphone and Mobile Internet Applications and Mobile-friendly websites

¹⁰ The Visit Ironbridge website has been redesigned and rebranded on numerous occasions and a complete revamp of the Blaenavon WHS website took place in 2009 with a further redesign and introduction of an interactive illustrated map in 2013. Similarly, the Derwent Valley Mills, through collaboration with the University of Derby, was able to create a new website in 2010 (AF, 8:44). A new website for IGMT was launched in 2012.

When the research interviews were conducted with WHS personnel from April to June 2013, three of the four selected WHSs had commenced work on the development of smartphone applications in order to adapt to the rapid development of mobile phone technology and increased mobile Internet coverage. The Cornwall and West Devon Mining Landscape was the first of the selected site to launch an app, launching its ‘Cousin Jacks’ app in 2012 (Cornish Mining 2012). It is, however, a rapidly moving area and whilst carrying out interviews at the Blaenavon WHS in April 2013, it was noted that the WHS’s first ‘app’, known as the ‘Blaenavon Digital Passport’, had been launched just a day with funding support from the Welsh Government (RH, 26:17). Likewise, the interview at the Derwent Valley Mills WHS was conducted as the WHS team were in the actual process of filming material for inclusion in their first app (AF).

5.2.2 Influences on the Approaches WHSs Take to Digital Heritage Tourism

5.2.2.1 *Wider Strategies*

The factors that impact on a site’s digital strategy are typically grounded in the organisational needs, structures and imperatives found in actuality. The wider strategic background to digital technology, particularly in respect of cultural heritage and tourism, is detailed in chapter three. Local authorities frequently play co-ordination roles within the management of UNESCO WHSs in the United Kingdom. This is true of the Blaenavon WHS, the Derwent Valley Mills and the Cornish Mining WHSs, and, to a lesser extent, the Ironbridge Gorge WHS where the Ironbridge Gorge Museums Trust takes the lead role in the interpretation and management of the main attractions in the WHS. The policies of individual local authorities thereby impact on the delivery of digital projects in the selected industrial WHSs. Within Torfaen County Borough Council, the lead partner within the Blaenavon Industrial Landscape WHS, a digital agenda is being implemented throughout the local authority and is impacting on all areas of the organisation’s remit, including the WHS (AT, 00:09). This

strategy takes place within a wider context in which the Welsh Government, the United Kingdom Government and the European Commission are all pursuing policies to take advantage of advances in ICTs (as outlined in greater detail in chapter three).

The TCBC Community Heritage Development Officer noted the influence that the ‘Digital Agenda’ has, and will continue to have, on the delivery of heritage tourism in the Torfaen area, including the Blaenavon WHS.

...because of the Torfaen Council Digital Agenda... when we develop any project it’s got to have a digital element to it, be that trails, an app, improving the website, different ways of interpretation and using different digital technologies... (AT, 00:09)

Organisational structures and the priorities within that structure have a significant impact on how digital heritage tourism is delivered. Strategic pressure to digitally transform is filtering down through the organisation and impacting on the delivery of digital projects within the WHS. The emphasis that TCBC places on digital transformation may not be reflected equally in other local authority areas but, as outlined in chapter three, it is likely that pressure from central and devolved government means that all local authorities will look to transform. The greater the importance of digital technology to the managing authority, the more likely it is that attention will be afforded to digital projects in the WHSs.

The extent to which external strategies, and the current practice advocated by other cultural heritage attractions, impact on the development of digital heritage tourism varies. They are not necessarily viewed as prescriptive. In the Blaenavon WHS it was noted that the site carries out activities within the context of wider strategies and there was a reluctance to ‘be departing from anything that’s already out there’ but it was recognised that the individual needs of the WHS, such as its geographical layout and its inherent uniqueness, necessitated a more innovative and individualised approach where necessary (RH, 04:51). The Cornish Mining WHS was less influenced by external strategies. When asked on how much influence

national and international digital heritage or tourism strategies had on the WHS, the co-ordinator replied:

If I'm truthful, we didn't particularly look at what other people were doing. Ours was very much based on our estimation of what we needed to do for our audiences and our markets. That's not to say we are not aware of what other people are doing but we are not slavishly copying them (DB, 20:25).

This therefore indicates that the site management team can and do have a strong role in determining and constructing the development of digital cultural heritage tourism in their WHS. Despite wider agendas being implemented at various political levels, individualisation and choice based on the specific problems and challenges facing a particular WHS remain influential factors in determining the manifestation of digital heritage tourism in WHSs. It is also indicative of a cultural shift within these organisations in which digital technologies are becoming an increasingly embedded part of working practices. This process, however, is currently piecemeal and incomplete.

5.2.2.2 Socio-Technological Developments as a Driver for Transformation

The officers interviewed at the Blaenavon WHS noted that a perceived need to keep up with socio-technological change was influencing their approach. The Team Leader for Economy and Renewal, with responsibilities for strategic co-ordination within the WHS and the management of the Blaenavon World Heritage Centre, observed that a large part of the WHS's digital work was informed by a need to 'move with the times' (RH, 02:00) and that changes in the area will 'develop really quickly now, particularly with the council's digital agenda' (RH, 04:00). Similarly, the Community Heritage Development Officer argued that:

in this day and age with the world moving on into a digital world... you've got to go down that route [digital heritage] ... we need to keep up with it in any kind of heritage just so we can continue to reach audiences that we have traditionally reached, otherwise we won't reach those audiences anymore. (AT, 00:09)

An aspiration exists to ‘embrace’ the ‘new methods of digital technology coming out’ because ‘that’s the way it’s [the heritage industry] going’ (AT, 02:13). The strategy officer noted that the on-site digital interpretation installed at the Blaenavon World Heritage Centre in 2007 was ‘quite old hat now’ and in need of refreshing (RH, 27:08). Her colleague agreed that new digital technologies were needed to improve the interpretation at the Blaenavon World Heritage Centre but no plans had been made to identify what needs interpreting and how digital technology will be used to meet that particular interpretative need. Indeed, the Community Heritage Development Officer confessed ‘how we do that [improve heritage interpretation using digital technology] is up in the air at the moment but I think it needs to be improved’ (AT, 23:30). This suggests that the WHS has taken the decision to use more digital technologies but the site management, in some respects, has yet to establish the ways in which these new technologies should or could be used.

The approach taken in Blaenavon appears to be somewhat different from the other selected WHSs. In the Derwent Valley Mills WHS, the heritage co-ordinator stressed that with the rapid development of ‘amazing digital technology’ pressure is placed upon organisations to ‘keep up’ and that ‘there’s too much worry about being left behind’. Instead he advocated that a ‘brave’ approach needs to be taken to select technologies appropriate to the specific needs of the WHS (AF, 11:52).

[It is important] to get it right rather than to keep up with the trends and that’s something you’ve got to be brave about, working out what works well rather than what’s the latest thing out there? So it’s going to need some serious attention by a lot of people I think before it’s really used to its greatest effect (AF, 11:52).

The Cornish Mining WHS strongly advocates a cautious and purpose-driven approach to the adoption of new heritage or tourism digital technologies.

What we aren’t is ‘techno-tarts’, we don’t just chase technology because it’s the latest thing and it looks sexy, we are much more purpose-driven. You know, who are we talking to? What do they need from us? How does

technology make that easier, more cost-effective, and better in terms of quality? And we only use a technology where it enables us to achieve that (DB, 20:25).

In the Cornish Mining WHS, the development of digital heritage tourism is not purely dictated by external factors such as the economy and wider strategies. It is also strongly influenced and, to an extent, constructed by the individual needs of the WHS and their understanding of what their visitors want from the technologies. Whilst pressure to adopt new technologies is felt across the WHSs. How they deal with this pressure varies, especially where budgets are tight. As the Welsh Government has provided funding for digital tourism in Wales (see chapter three) this may explain the Blaenavon WHS's enthusiasm to adopt the new technologies. If the money is available, it reduces the financial risk to experiment with digital technology, even if success or value for money will not be immediately evident.

The historic nature of the WHSs, as industrial innovators and centres of invention and change, also provides a degree of inspiration to WHSs as they attempt to innovate digitally. At the grand opening of the Shared Resource Service (SRS) Centre in Blaenavon, the Chairman of the Blaenavon WHS Partnership and Leader of Torfaen County Borough Council stated: 'where Blaenavon was once the heart of the Industrial Revolution, today marks a significant step on our journey towards a digital revolution for Torfaen' (Sanders 2011). Similarly, the WHS Co-ordinator for the Derwent Valley Mills, in reference to the digital installations planned for the Derby Silk Mill, stated:

Technology has been a big part of Derby's development, it was always cutting edge right from the Silk Mill, Rolls Royce, the railways... everything was happening sort of before it was happening elsewhere. This is the home of Lara Croft and various other things so they are trying to celebrate that with what they're going to do (AF, 3:17).

Therefore, even the pressure of history is having at least some influence on how WHSs deal with the socio-technological developments of recent years.

5.2.2.3 *Funding*

Another issue influencing the development of digital tourism is the wider economic environment. All of the interviewees drew attention to the fact that what they can deliver digitally has been limited by the tightening of budgets due to the economic downturn which has been experienced globally since 2007/2008, and which is set to persist in local government well beyond 2015. Nevertheless, opportunities have arisen as digital technologies emerge as cost-effective solutions to heritage and tourism delivery. The HLF, for instance, has announced that from 2012 to 2018 it will fund projects where the outputs are exclusively digital (previously digital projects were funded only if it formed part of a wider project). Such projects, however, must meet the HLF's overarching funding requirements and organisational objectives. Outputs from these digital projects may include interactive kiosks, smartphone applications and audio tours (Crosby 2013, p.18). The Welsh Government in 2010 launched a £17.4m investment into the digital tourism product of Wales and has afforded prominence to digital heritage interpretation and digital tourism within its policies due to the economic benefits and estimated value of the cultural heritage tourism industry to Wales (Lewis 2013, pp.24-25).

The selected WHSs have benefited from public sector grant funding to develop their digital heritage and tourism offer. In 2013 the Blaenavon WHS secured a grant of over £70,000 from the Welsh Government's Heads of the Valleys Programme and the HLF to improve its digital heritage product. The project included changes to the website, the implementation of an interactive map, the installation of Quick Response (QR) codes within Blaenavon, the creation of a smartphone application consisting of electronic walks trails and the use of augmented reality heritage interpretation at selected locations within the WHS (BWHS Partnership 2013, pp.6-7). Within the Derwent Valley Mills the site had benefited from a HLF 'All Our Stories' grant to produce a smartphone application for the WHS (AF, 04:51) whereas the Cornish Mining WHS has benefited from grant funding the Rural Development Programme for England to deliver its 'Discover the Extraordinary' project which included

the development of a new website and a smartphone application (DB, 05:01). The funding system is an influence on the development of digital tourism. Digital technologies are often expensive and their funding in the selected WHSs seems almost dependent on public sector support or grants. Therefore, the delivery of the projects will be heavily influenced by the agendas and aspirations of the funding bodies. More ambitious projects such as 3D scanning and modelling, which was an aim of three of the selected sites, are purportedly too expensive to finance at the current time.

Within the Ironbridge WHS, Telford and Wrekin Council attempt to get private sector investment into their digital offer. Utilising a tourism partnership of local businesses, membership schemes allow certain businesses to pay for advertising services on the website. Basic membership payments permit businesses to get a limited listing on the website whereas an enhanced membership allows for more detailed information to be advertised (T&WC, 10:16). The Cornish Mining WHS, whilst advertising the services of local partner attractions free of charge, is considering the commercialisation of its data. Through the use of ‘widgets’ and ‘wrappers’ the WHS allows appropriate sections of its website to be made accessible through the website of a partner organisation. Although this is currently a free service, and, in the case of the widget, is carried out with some 104 partner businesses, the feasibility of selling the right to use the WHS’s quality data to big organisations such as Expedia or Trip Advisor is being considered (DB, 18:12). According to the WHS Co-ordinator, however, there is currently a ‘policy vacuum’ on how cultures can be changed to recognise the value and challenge of commercialising previously freely available information (DB, 18:12).

5.2.2.4 Staffing

Staffing levels also impact on the WHS’s delivery of digital heritage. The level of staffing differs across the WHSs. In the Derwent Valley Mills a single member of staff is responsible for keeping the website and social media content up-to-date on a day to day basis but officers from a range of disciplines are responsible for contributing and developing content for

website (AF, 24:38). A similar situation exists in the Cornwall and West Devon Mining Landscape WHS where the whole WHS team, under the leadership of the WHS Co-ordinator, contributes to the website with at least two members of staff engaged with the site each day. A model of this sort is operated at the Blaenavon WHS where the WHS Co-ordinator uses the expertise of various officers across the Partnership as and when needed and this includes producing content for the website (RH, 24:12).¹¹ In Telford council about 'half a person' per day is dedicated to updating the authority's tourism websites, including Visit Ironbridge (T&WC, 31:15).

The skill-set of the officers responsible for implementing the site's digital offer also impact on what is delivered. At the Blaenavon WHS it was remarked that there was a skill shortage among the staff in respect of digital technology, thereby limiting the site's ability to develop digital projects (AT, 03:31). At Telford and Wrekin Council it was perceived that the Visit Ironbridge Facebook site was not as successful as its Twitter page and this was partly attributed to the team not having the acquired the appropriate digital literacy to use Facebook effectively (T&WC, 5:40). Digital skills and the confidence of staff to utilise the technologies are influential factors in the success of digital projects. Generally, the WHS websites are run by interdisciplinary teams, whose staff members are highly trained in areas such as planning, project management, history, archaeology or marketing. The diverse skills of the teams are reflected in the multidisciplinary nature of the websites. The exception is the Visit Ironbridge website, control of which falls exclusively within the tourism department and consequently that results in the website taking the form of a visitor facing website, focused exclusively on attracting corporeal visits to the WHS (T&WC, 03:21).

The traditional, non-digital skills still have relevance for the development of digital cultural heritage tourism in the selected WHSs. In the interviews with officers at Telford and Wrekin Council, it was observed that an internal organisational restructure had removed the WHS

¹¹ As of 2013 there was no dedicated officer who co-ordinates or has direct responsibility for the website

Co-ordinator post and that the absence of the role had an impact on how the local authority deals with the WHS.¹² It was noted that enquiries are received through the Visit Ironbridge website that go beyond tourism and visitor information and require a response from a specialist in a particular area yet it was no longer immediately obvious who in the authority would be best equipped to deal with such an enquiry (T&WC, 16:17). Therefore, non-digital skills are also required to deal with the implications of online communications. Without a range of both traditional and digital skills, the WHS's online and virtual offer will be limited.

The desire to increase staffing resources to deal with digital heritage tourism was common among all of the case studies. It was generally supposed, however, that budget constraints facing local authorities would be unlikely to permit further staffing in this regard. As stated above, the multidisciplinary nature of people's remits in the WHS mean that other priorities and imperatives on their time will often take precedence over digital tasks. Staff limitations therefore restrict the level of time that can be dedicated towards digital heritage tourism. Similarly, it was noted in several sites that the scope to carry out online community engagement and participation in interpretative projects is restricted by staffing constraints (DB, 31:30; AT, 12:50; AF, 18:13).

5.2.2.5 Technological Constraints

Technological usability and infrastructure also influence the development of digital heritage tourism. For instance, in the Derwent Valley Mills, it was noted that the templates used in the website design were quite restrictive and 'frustrating', limiting the type of content that could be uploaded and displayed. The site co-ordinator remarked that 'it's a technical issue and technical issues can impinge far more greatly than they should' (AF, 15:51).

Within the Cornish Mining WHS the ideas for the site's digital offer were in place even before it was inscribed as a UNESCO WHS in 2006. Financial resources and a suitable content management system (CMS) were not immediately available to deliver on that

¹² Co-ordination responsibilities were to be transferred to IGMT

strategy. The previous website, which had been running since before inscription, was difficult to update and thereby limited its potential. The change in technology since that time has allowed for greater dynamism in terms of updating the website (DB, 13:19). Technological issues are still of significance. For instance, the Cornish Mining WHS is working in conjunction with a range of WHSs and other landscape designations in the south west of England to ensure greater linkage between their websites through a ‘wrapper’. However, the system relies on compatibility between content management systems and this is not always the case, meaning that not all potential partners can get involved (DB, 15:53). In the Ironbridge Gorge, the reason why smartphone apps had yet to be developed for the WHS was partly attributed to poor mobile phone signal coverage in the Ironbridge Gorge (T&WC, 34:55). The ambition to further develop 3G or 4G mobile Internet coverage throughout the Blaenavon WHS was articulated in the hope that a stronger infrastructure would open opportunities to develop more apps and ‘would make anything possible’ (RH, 29:17). Technological infrastructure, situated in actuality, therefore impacts on the delivery of digital heritage tourism.

5.2.2.6 Ontological Implications

The nature of this virtual space and its formation raises ontological issues. The case studies exhibit traits of both the objectivist and constructivist ontologies. External structures that impact on all sites include the global economy, financial constraints, staffing levels, technological developments and trends, as well as the wider political and strategic context concerning issues such as digital technology, heritage and tourism. All of the comparable sites, to varying extents, have been influenced or restricted in their approaches to digital heritage tourism by these factors. Nevertheless, the strengths of these factors can vary from site to site and undoubtedly the independent ideas articulated in the various WHSs allow for individualism.

Table 5.3: Factors Influencing the Development of WHS Digital Strategy

External Factors	Subjective Factors
Global Economy	Individual WHSs can only exert negligible impact over such macro-economic trends
Budget	Budgets for the WHS are often set by the stakeholder organisations within the managing partnership, including local authorities. WHS personnel may have ability to exert influence to decision-makers. Some scope is available to staff to control budgets and spending. Grant funding can be sought to deliver particular projects – to do so or not is at the discretion of the WHS personnel and their management organisations.
Funding Requirements	Bids must meet the criteria of funding bodies. However, some flexibility exists in terms of projects and content.
Staffing Commitment	Staffing depends upon funding and the priorities of the organisations managing WHSs. Organisation and staffing varies from site to site.
Local, Regional and National Policies and Strategies	There is no obligation on sites to follow these strategies – however they are often tied in to the priorities of funding organisations.
Technological Developments	Sites are not obliged to follow the latest trends, although some feel pressure to do so. It is not necessarily the case that what WHSs do is determined by technology. New technologies can be developed to meet the needs of individual WHSs.
Outstanding Universal Value	The non-negotiable justification of why a site has been inscribed on the World Heritage List. Nevertheless, in actuality, individual WHSs in their interpretation and marketing may choose to be selective over which elements of OUV are presented.

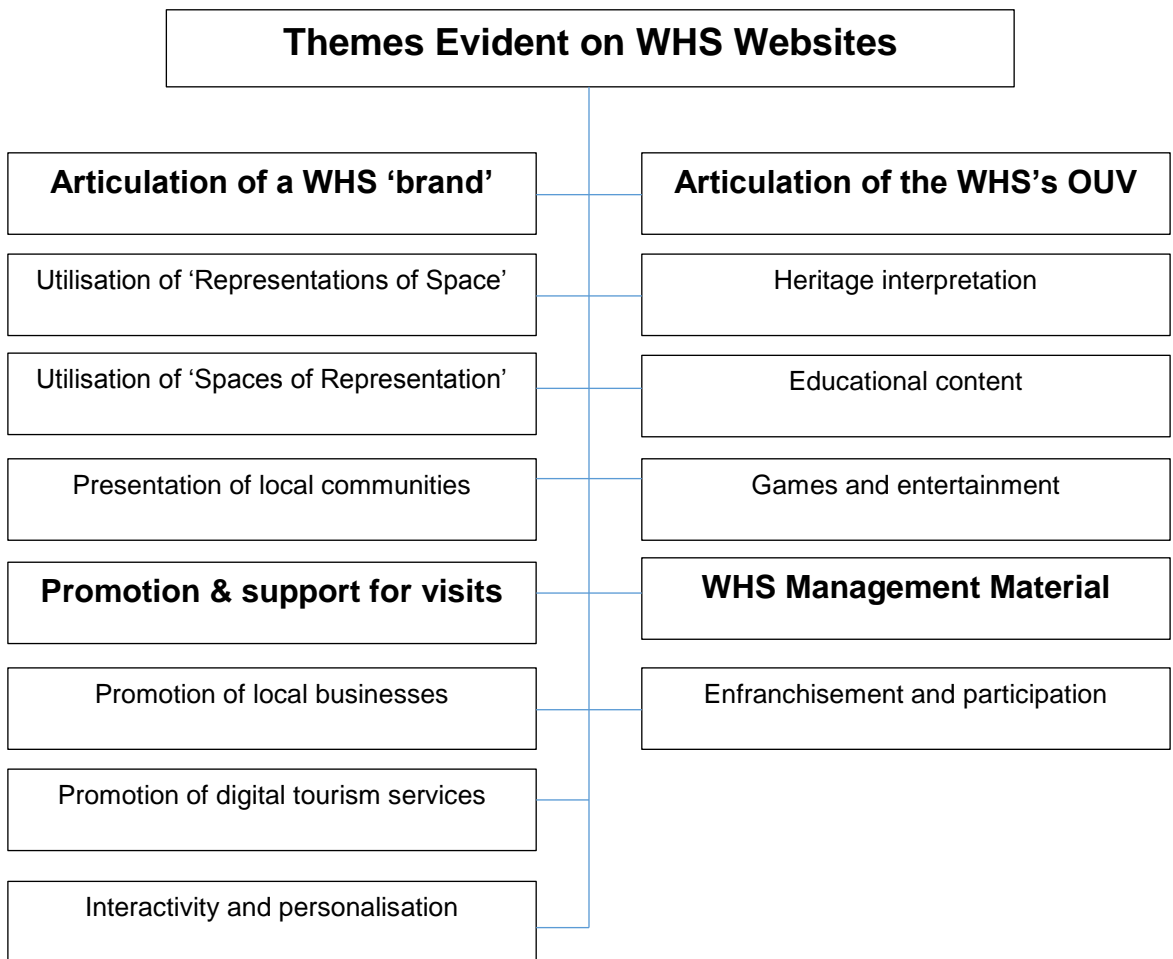
The forms of virtual space are influenced by a range of external factors, some of which WHS management has little or no control over. This is indicative of the objectivist ontology in which structures dictate or control the development or nature of organisations. Despite this,

there is still scope for human agency; individuals within the WHS management organisations are able to have ideas and influence the content of the virtual space of websites and other digital technologies, thereby suggesting some degree of constructivism. Nevertheless, even where this individualism does take place it frequently relates to the individual needs of the site and the presentation of its OUV, the non-negotiable justification of the site's global importance as a WHS. A WHS's statement of OUV is a structure so even where there is freedom of action it only takes place within boundaries set by other rules and structures. The similarities and differences in approach, however, will be outlined in the subsequent sections of this chapter, where the specific objectives and the forms that digital cultural heritage tourism takes will be conceptualised through an in-depth study of current practice.

5.3 CURRENT PRACTICE

The following chart illustrates the key themes that were discerned on the selected WHS websites through a content analysis. The major themes will be explored and analysed in greater detail through the subsequent sections.

Figure 5.1: Themes Evident on WHS Websites



5.3.1 Articulating a Politically Defined Concept, Boundary and Brand

The concept of a WHS is a political construct. They are formed not simply because of the heritage value of the site, as evaluated by international experts, but also with the backing of States Parties, thereby making it heritage endorsed by national governments. Such endorsement and inclusion on the Tentative List may reflect domestic political agendas (Howard 2003, p.179). The boundaries are set by experts and encompass large areas that may not necessarily reflect communities or political boundaries. Using WHS as a tourist

destination in particular may also be difficult because the features of industrial landscapes spread over wide geographical areas and lack definition or a ‘sense of place’ unlike other WHSs such as the Taj Mahal or the Tower of London, which are essentially single-feature WHSs that were established tourist destinations long before they were inscribed on the World Heritage List. WHS websites, through their use of ‘representations of space’, attempt to give meaning to this disparate space, to unify it and let visitors view the site holistically.

Industrial WHSs consist of spaces that have undergone profound social, economic and cultural changes across time. In their current form, WHS status is being used to exploit the perceived benefits of cultural tourism yet these former centres of industry are not traditional tourist attractions, being former spaces of labour, hardship and manufacturing. To an extent, this transition can be viewed as part of a liminal process and a time in the area’s history where it is undergoing change to its identity through economic, social and cultural reappraisal. As part of this transitional process, the need to raise awareness and change perceptions of these former industrial areas has been recognised (Welsh Assembly Government 2006, p.12; National Trust 2010, p.35). The web is playing a role in this and is being used by all of the sites to reinforce the idea of WHSs as visitor destinations. The Blaenavon WHS, Derwent Valley Mills, Cornish Mining and Visit Ironbridge websites, for example, follow distinct and individual branding unique to that particular WHS.¹³

5.3.2 Representations of Space

‘Representations of space’ are utilised by each of the WHS websites in some form. In most cases, Google Map integration is made with key features pinpointed. In the case of the Ironbridge and Derwent Valley Mills WHSs the use of maps is largely to help orientate the visitor within the WHS. The Cornwall and West Devon Mining Landscape map provides orientation but it shows the boundaries of the various districts of the WHS allows the user

¹³ IGMT follows its own corporate branding. The UNESCO and WHS logos and emblems, however, are only used on the Blaenavon WHS and Derwent Valley Mills WHS websites. These unique WHS brands are designed to provide an ‘umbrella’ brand to cover the entire WHS and their constituent attractions.

to interact with the map and to examine in greater detail the various attractions found within each district. In the initial content analysis, conducted in January 2013, there was little use of such representations on the Blaenavon WHS website beyond a PDF map, which was available to download on the 'Getting to the WHS' section (Visit Blaenavon, undated, a). However, on 18 April 2013 an interactive and interpretative illustrated map of the WHS was launched within a redesigned homepage making much greater use of representative space (Visit Blaenavon 2013). The Blaenavon interactive map is designed to foster temporal-spatial compression, expressing a disparate landscape of 3,293 hectares into a virtual space, where its significance and interrelatedness can be understood. The interactivity of the map allows for the intellectual orientation of the landscape, whereas the imagery provides a sense of the physical geography of the space.

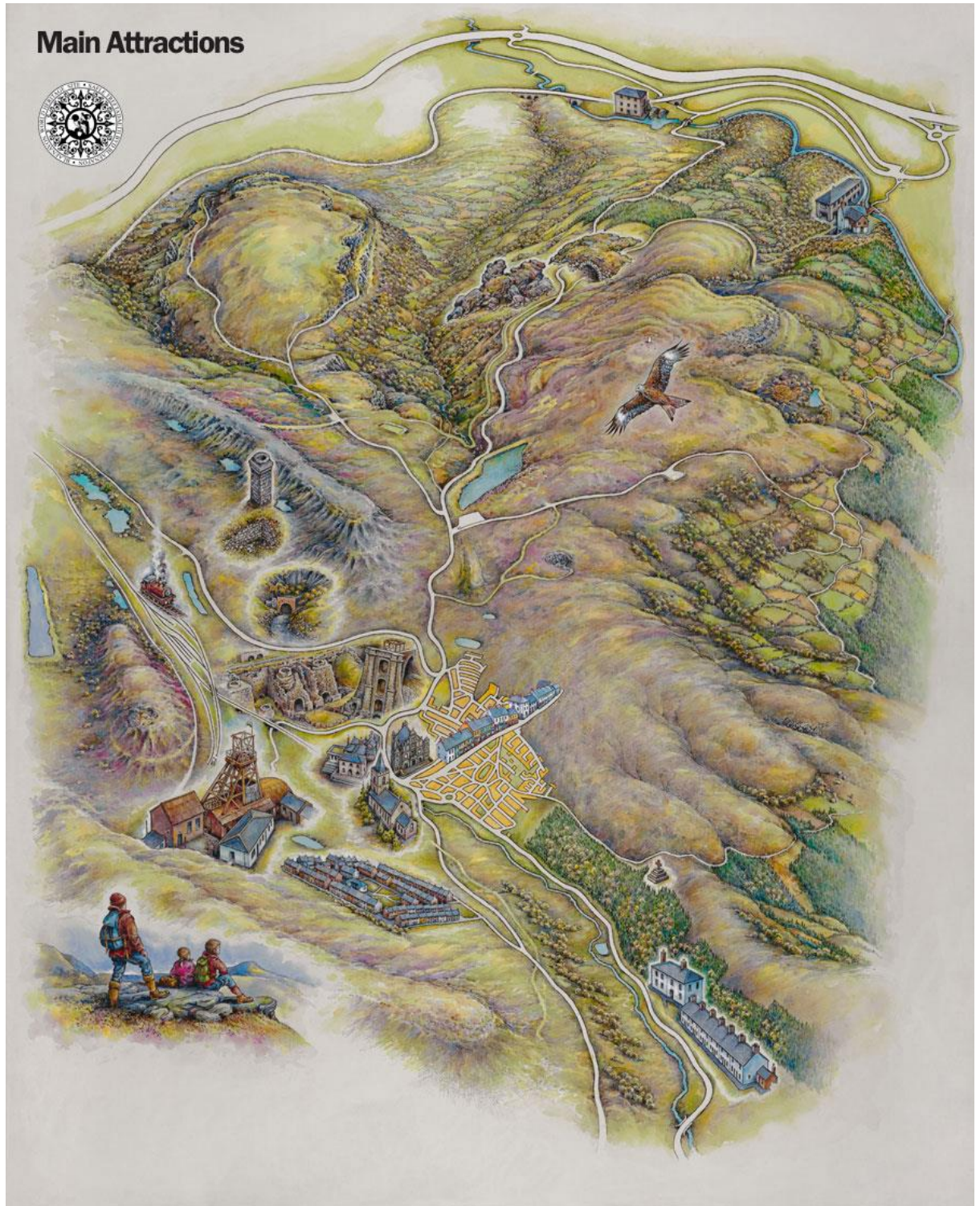


Plate 5.1: Artwork produced by Michael Blackmore (1938-2015) to provide the base for an interactive digital map of the Blaenavon World Heritage Site © Torfaen County Borough Council.

The map provides a representation of space and depicts, artistically rather than accurately, the boundary of the inscribed WHS and illustrates the key tangible components of its OUV. By including this image prominently on the homepage, it is intended to convey the message that the WHS is a space that contains multiple attractions and places of interest over a geographically dispersed area and permits the site to be viewed holistically through one virtual space. The website provides an interactive version of this artwork in which the user is invited to 'explore' the site and its history through the virtual space of the map. The use of so-called 'hotspots' i.e. specific areas on the map that the user can hover their cursor on to be presented with more information, permits people to find further details about a feature. This may include practical information such as opening times as well as information about the history and significance the of the Blaenavon landscape. This allows for more participation and interaction than a static representation and allows for a degree of individual negotiation. However, it still remains largely representative. The user can only select and view what has been made available to them by the WHS management and are not permitted to submit or upload their own content (Visit Blaenavon 2013).

The WHSs utilise digital technology and heritage interpretation to help foster understanding of this inscribed space and to generate the notion, among the audience, that this space now forms a visitor destination. In doing so there is potential to create a complementary virtual space for the WHS in which a range of experiences can take place. Within the Cornish Mining WHS, its website is conceived as a 'digital platform' for the WHS. The space afforded by the web allows the multifaceted and complex nature of the WHS to be represented in a digital format. According to the WHS co-ordinator, the website is used as a 'virtual office' or a 'virtual visitor centre' (DB, 27:09). It serves as a remotely accessible space that holistically rationalises and interprets the geo-spatially dispersed, multi-sited WHS landscapes. It is therefore designed to be a space betwixt and between the service user and the various constituent parts of the physical or actual WHS. Within this virtual space the

user is encouraged to undergo learning experiences and also to be persuaded to visit the site corporeally. According to the site's latest management plan, the purpose of the Cornwall and West Devon Mining Landscape WHS website is to 'highlight the Cornish Mining story and how and where to access it' (Cornwall & West Devon Mining Landscape WHS Partnership 2013, p.99). The intention is therefore to interpret the significance of the WHS and to use this interpretation to inspire people to make actual visits to the WHS.

All the selected WHSs make strong use of professionally photographed images on their websites. These photographs are designed to portray the WHS positively and to present these former industrial areas as attractive visitor destinations. All of the photographs included on the websites have been selected or approved by the WHS management organisations and therefore are an example of the management maintaining control of the 'tourist gaze' (Urry and Larsen 2011). This means that the web is being used as a space in which an idealised version of a WHS is being presented. Any negative imagery of the areas, which may include derelict shops or fly-tipping on post-industrial landscapes, is likely to be excluded because they do not present the image that the WHS management is trying to convey.

Images are also used to appeal to different market segments. This was explicitly recognised in the Ironbridge Gorge WHS where it was noted that images were selected based on the site's key audiences. For instance, images including young and middle-aged couples, dog walkers and family groups are displayed prominently on the site's homepage. These groups reflect the main audiences that the WHS is attempting to attract (T&WC, 09:34). It is hoped that the use of such images will encourage 'imaginative travel', where people within those target markets, can imagine themselves in the WHS enjoying the various events and activities that are on offer. Ultimately it is hoped that this will encourage corporeal visits to the WHS. The Cornish Mining WHS, for example, contains an image gallery of some 835 photographs showing different areas of the WHS. This provides a degree of remote access but it is clear that the site management hope that the virtual visitor will translate this remote

visit into an actual one, as the imperative statement ‘Get Out and Do It’ caption on the photographs suggests (Cornish Mining, undated, b). On all of the websites the potential for virtual exploration of the sites through imagery is limited. Each image is static and does not permit further exploration or negotiation of the viewpoint or any panoramic or 360 degree views.

Films and videos have been used by the Cornish Mining and Derwent Valley Mills WHSs, providing further spaces of representation. The Cornish Mining Site utilises embedded YouTube videos which are used within various sections of the site to provide overviews or a ‘fly-over’ of the WHS. These allow the site to be viewed holistically and reinforce the idea of a destination that is comprised of multiple features across a disparate landscape (Cornish Mining, undated, a). On the Derwent Valley Mills WHS a promotional video entitled ‘To Where It Begins’ is linked from the homepage. The short film attempts to celebrate the history and key features of the WHS utilising poetry, music and high quality filming. It quickly covers key features of the WHS and shows some of the experiences that a potential tourist may encounter during a visit. The WHS is presented idealistically, portraying the site in a somewhat nostalgic and ‘sanitised’ version of industrial history. It incorporates both tangible and intangible elements of the site’s heritage but arguably overlooks aspects of the darker side of industrial heritage in its attempt to present the area as a visitor destination (Derwent Valley Mills WHS 2011).

As with the static images there is no scope for individual negotiation with these films, the user sees only what is presented to them. It takes the form of a virtual tour but people cannot decide which parts of the WHS they would like to explore. What they see is determined by the WHS management team. It is therefore an example of spaces of representation being used to create positive perceptions of the actual space of the industrial WHS, an attempt to invoke imaginative travel in the hope that actual visits will be inspired; and a way of remotely providing an understanding of a disparate space containing multiple attractions and features.

These representations, however, are not just intended to provide a virtual exploration of space. They also permit, to a certain extent, representative travel through time. On the Blaenavon WHS website some use is made of historical images, depicting aspects of the WHS in previous times. Similarly, some use of old photographs and archive footage is used on the Cornish Mining WHS website and films. Nevertheless, current practice across the selected WHSs places very little focus on the presentation of historical imagery. Therefore, despite the potential for digital technology, to provide representations or immersive computer generated ‘recreations’ and re-imaginings of historic environments, very little progress has been made in this respect and the focus is very much on the presentation of the site as it is in modern times.

5.4 THE PRIMACY OF THE CORPOREAL VISIT

The above section outlined the use of images and representations to generate a better understanding of the concept of WHSs as visitor destinations and to foster imaginative travel to WHSs in the hope that actual, corporeal visits will result. As outlined in chapter one, many of the UK’s industrial WHSs, particularly those included on the UK Tentative List in 1999, including Blaenavon, the Derwent Valley Mills and Cornish Mining, had a regeneration objective from the outset. It was intended that the development of cultural heritage tourism in these areas would help rejuvenate local economies and revitalise local communities by boosting footfall to the area, overcoming negative perceptions of industrial heritage and developing or improving the infrastructure. The nominations were not purely motivated by the perceived heritage value of the area as economic incentives were always of importance. These regeneration objectives and the need to generate income have permeated through virtual space.

5.4.1 Online Marketing and Promotion

A key objective common to all of the selected WHSs is the desire to use the web as a way of marketing and promoting their WHSs in order to generate increased footfall to the area,

which will ultimately contribute to the fulfilment of regeneration objectives. To this end, it is unsurprising that a large proportion of the websites focus on the provision of practical tourist information such as details about the various visitor attractions, opening times, directions, walking trails etc. The provision of visitor information is the most basic function of the websites and is common to all of the selected WHSs. Each WHS website has a dedicated section providing support for people intending to make corporeal visits to the area. Out of the five selected WHS websites, one, the Visit Ironbridge website dedicates itself solely to this purpose.

Within the Visit Ironbridge website, specially designed advertisements are provided to promote selected upcoming events. A detailed calendar of events is prominently displayed, promoting activities across the WHS, indicative of website's emphasis on encouraging corporeal visits to the site. The homepage also includes tabs that redirect the visitor to find out more about 'attractions', 'food and drink' and 'accommodation'. The group travel market is clearly targeted and the section contains itineraries, coach friendly destinations, coach parking and directions information and a special section provides details of the site's annual World Heritage Festival. The website is therefore very visitor orientated and inspiring people to visit is the key purpose of the website (Visit Ironbridge, undated).

...what we want is to be getting the excitement going for the local festivals and events that are going on, which is often a hook for everything tourism that we do and that's often the way we use social media is to generate interest in festivals and events (T&WC, 25:40).

To an extent, however, the online provision of tourist information reflects the traditional media. Some of the websites simply provide details of opening times, a photograph and some text related to the site, all of which can be done through traditional tourism literature such as brochures or leaflets. With the exception of the Ironbridge websites there is no function to pay for services or book accommodation or events online. The 'real' aspects of the digital, such as the ability to spend real money in real time are not fully being taken advantage of. Nevertheless, the digital manifestation of tourist information has the potential to transcend

the boundaries of the traditional paradigm. Communication between service providers and service users has increased as a result of digital technology and, within each site, social media is utilised to communicate directly with service users online and news items on the websites are regularly updated to provide users with the latest information (T&WC, 30:00).

The Cornwall and West Devon Mining Landscape recognises the significance of marketing and promotion to economic regeneration. However, financial limitations restrict what WHSs can deliver in this respect. An economic impact assessment, commissioned as part of the WHS bid, advised that a £500,000 investment into the WHS's marketing could generate returns of up to £12m per annum (Cornwall & West Devon Mining Landscape 2013, p.97). Such finance, however, is not readily available to invest in WHS marketing and sites therefore face the challenges of seeking grant funding. The Cornwall and West Devon Mining Landscape benefited from £2.4m of funding from the Rural Development Programme for England in the 'Discover the Extraordinary' programme between 2010 and 2013 which focused on the development of tourism through marketing and heritage interpretation. This included the development of audio-trails and a new website with film and social media content (Cornwall & West Devon Mining Landscape 2013, pp.98-99).

Within the Cornish Mining WHS website, interactivity is offered through the 'Add to My Brochure' feature. This individualised brochure of the WHS, allows visitors to virtually plan an itinerary of the features or attractions they would like to visit corporeally (Cornish Mining, undated, c). This reflects a shift from the traditional tourist brochure in which static information is created by the destination management organisation and presented to a general audience. This interactive brochure allows for the creation of personalised information that it is tailored to the needs of the prospective tourist(s) creating it.¹⁴

¹⁴ The WHS Co-ordinator reported that there had been a surprisingly low uptake for this service.

Local businesses, accommodation providers and other services are also advertised through the websites in a bid to encourage e-commerce and economic regeneration within local communities. A common objective among all of the selected WHSs and their respective websites is therefore to increase footfall in order to achieve financial sustainability and economic benefits. The primacy of the corporeal visit is therefore a theme that can be discerned throughout the entire digital activity of the selected WHSs. However, it can be seen that within the selected sites the full potential of digital technology as an economic or commercial space is not fully utilised and there is a tendency for the digital simply to replicate what can be done through traditional media.

5.4.2 Site Management and Audience Usage of WHS Facebook Pages

These imperatives can also be seen through the social media usage of the WHS managers. Based on a content analysis of the last three hundred posts made on WHS Facebook walls before December 2013, the following charts illustrate the themes evident in the posts made by the WHS management organisations.

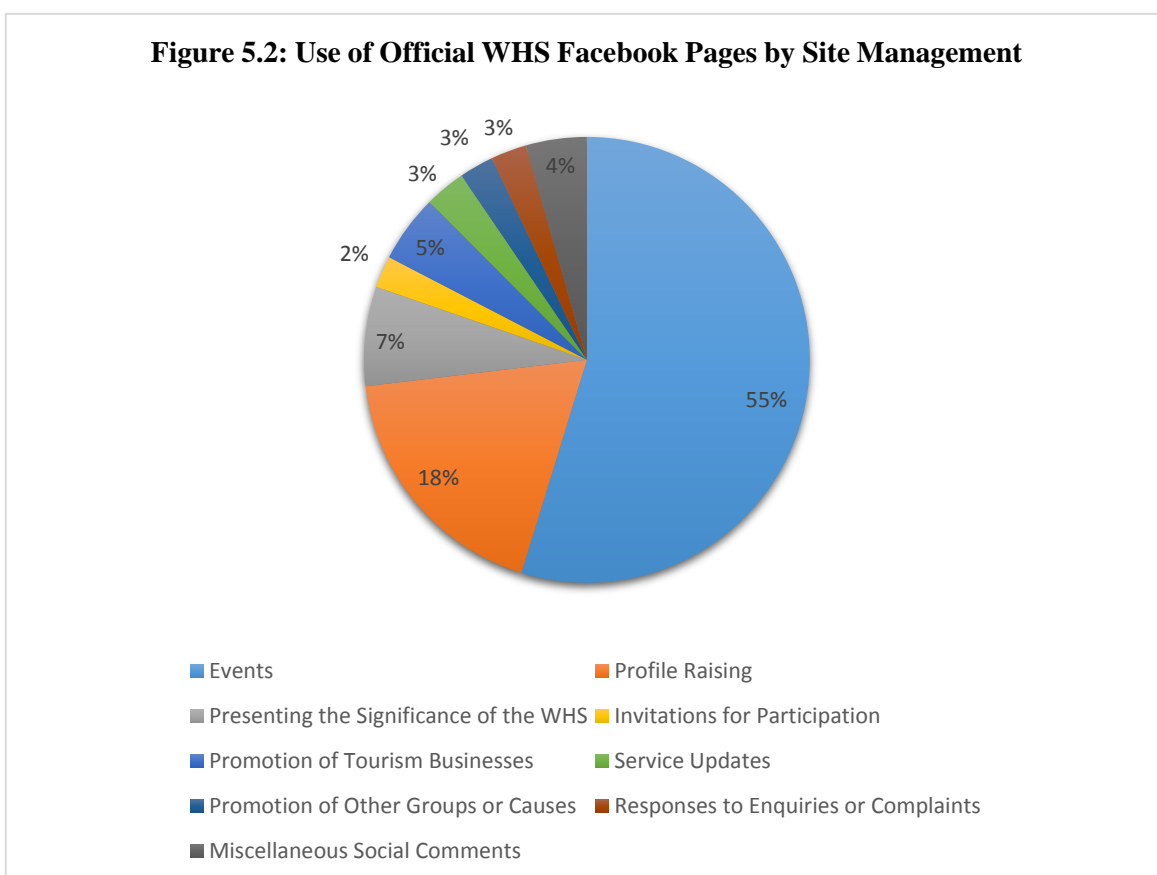


Figure 5.3: Use of Facebook by 'Visit Ironbridge' Management

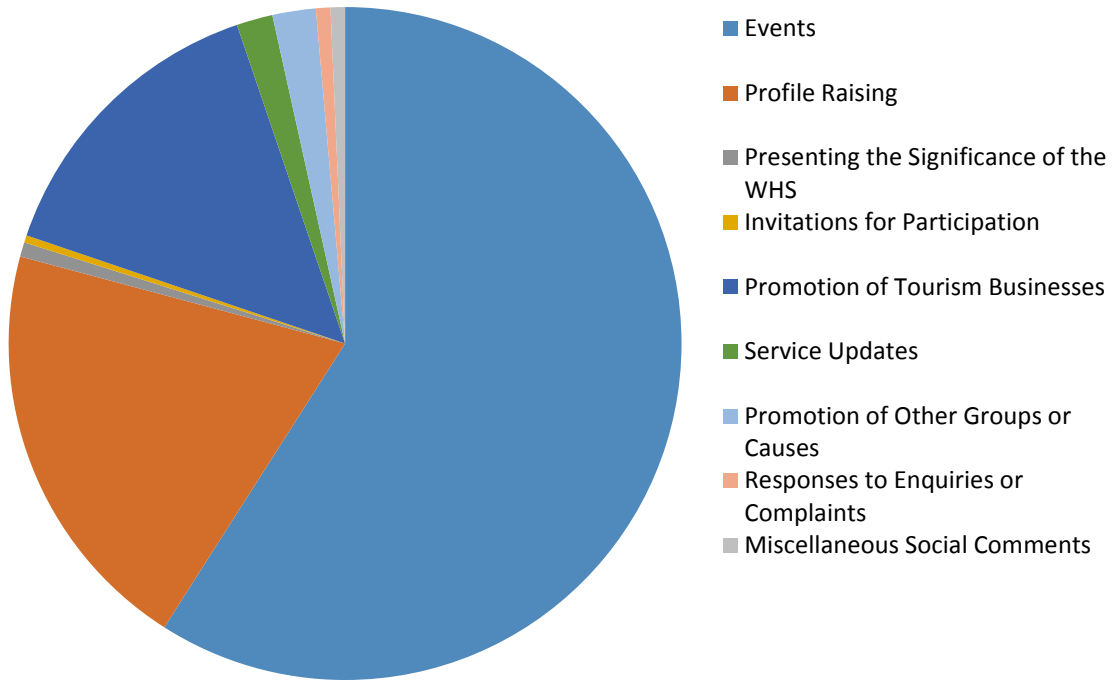


Figure 5.4: Use of the Ironbridge Gorge Museums Trust FB Page by the Site Management

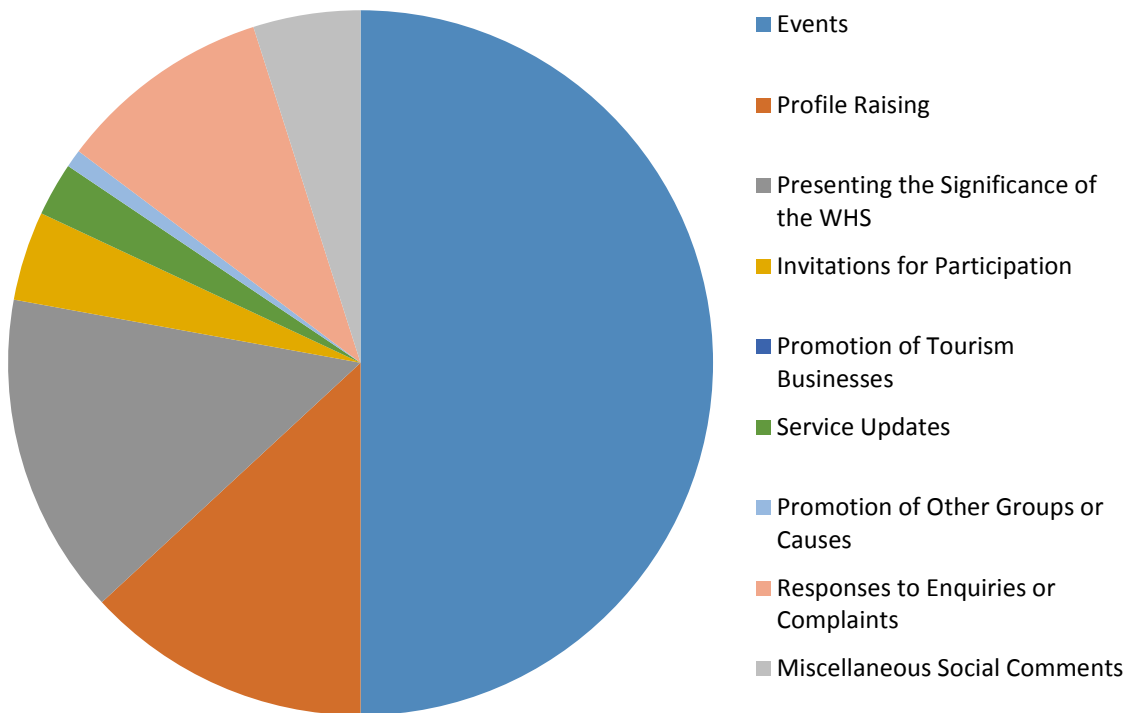


Figure 5.5: Use of the Cornish Mining FB Page by the WHS Team

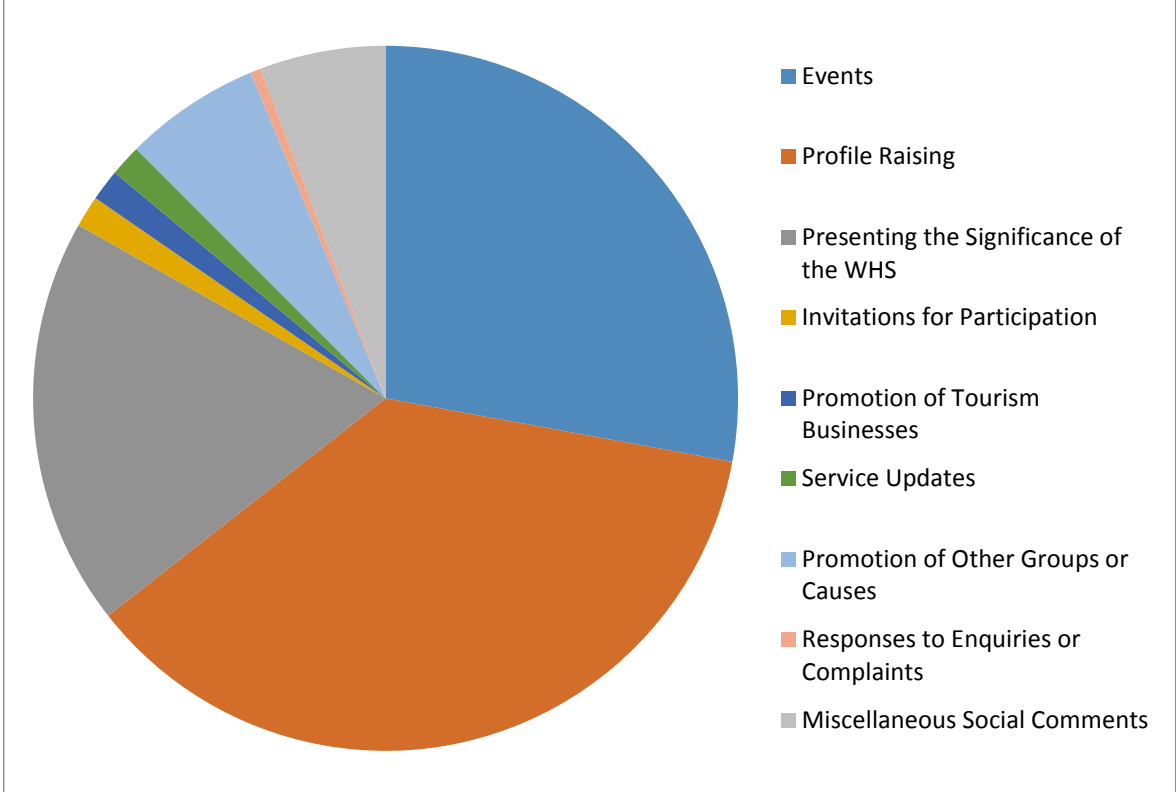


Figure 5.6: Use of the Derwent Valley Mills WHS FB Page by Site Management

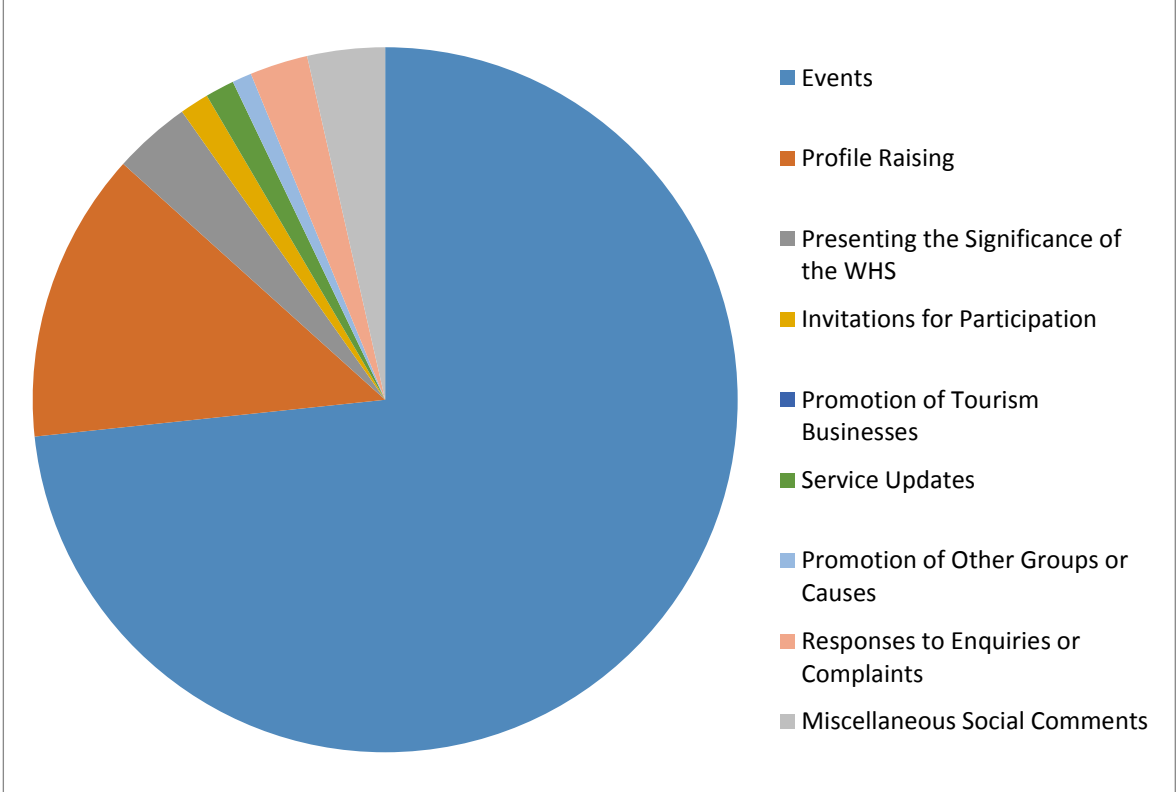
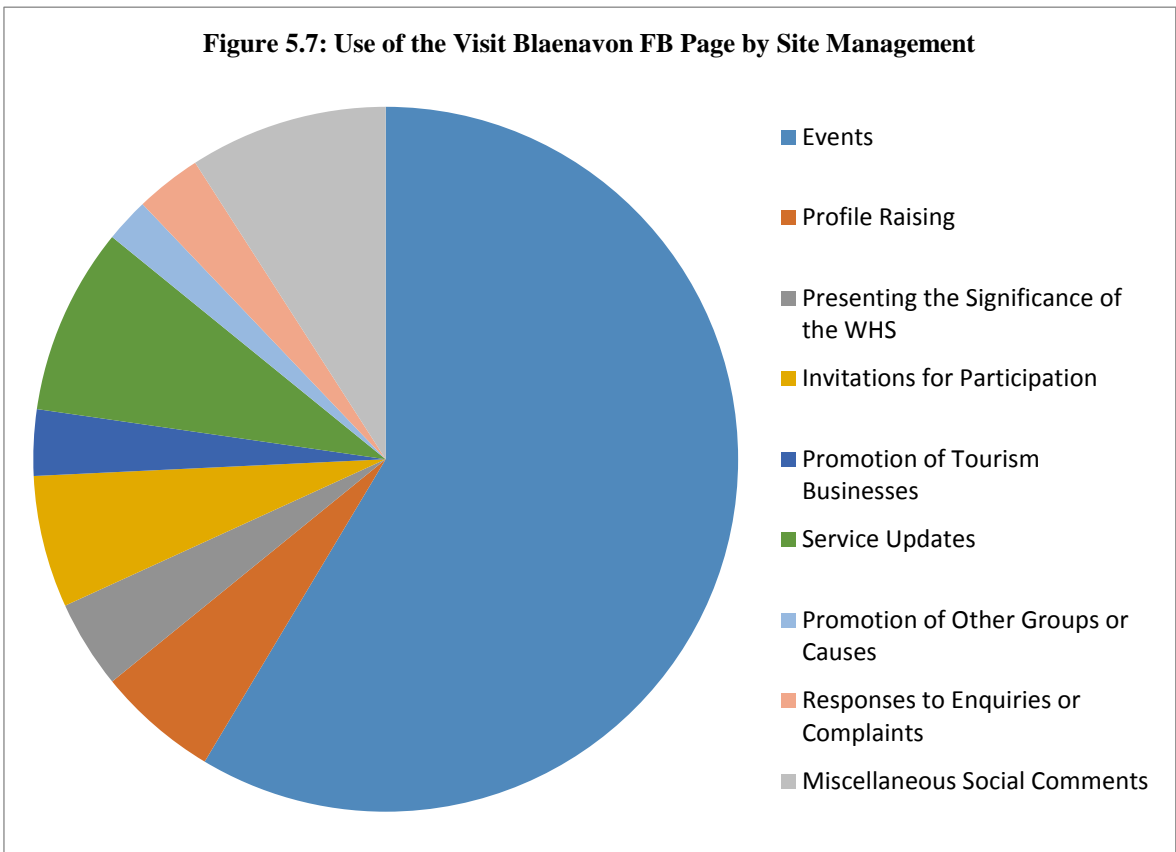


Figure 5.7: Use of the Visit Blaenavon FB Page by Site Management



The social networking sites are being used by site management as a tool to promote forthcoming events in their WHSs. Typically, over half of the posts made by site management relate to events and are made in the hope that potential customers will see the information, perhaps share it, and visit the site. Across the WHS social media pages some 18% of the posts by site management concerned items that attempted to raise the profile of the site, for example by highlighting news articles about the WHS. Only an average of 7% of the posts made by service providers on these sites concerned the presentation of the significance of the WHS, for example providing historical information or uploading imagery relevant to the site. The vast majority of the posts made by the service providers simply serve to provide information to the service user whereas the communicative elements and the social potential of the web 2.0 technology remain relatively undeveloped in these instances. There is almost an expectation that the service user only wants to passively receive information. Indeed, only 5% of posts across these five selected Facebook pages actively encourage online participation with the WHS.

5.5 HERITAGE INTERPRETATION

5.5.1 Current Online Practice

The World Heritage Convention (1972) requires that WHSs present and transmit their OUV to the peoples of the world (UNESCO 1972, article 4). Four of the five selected WHS websites attempt to use the web as a medium to interpret the OUV of their WHS. Sections on the Blaenavon, Cornish Mining, Derwent Valley Mills and Ironbridge Gorge Museums Trust websites are dedicated to the exploration of the history and significance of the site. For example, the Cornish Mining WHS has a section entitled ‘Delve Deeper’ which encourages people to ‘start exploring’ and provides numerous sections relating to a number of interpretative themes, thereby allowing the visitor to virtually explore the site intellectually without actually visiting (Cornish Mining, undated, d). The only website within these case studies that does not make use of heritage interpretation is the Visit Ironbridge website that primarily focuses on visitor support and the promotion of events and activities.

In respect of the content on the Visit Ironbridge website, the officer interviewed remarked that ‘we touch on the history’ but ‘that needs to come from a different site’ (T&WC, 14:40). The separation of content was deemed necessary because interpretative and historical content related to the WHS was not relevant to the website’s perceived target audience, namely people intending to make corporeal visits to the WHS (T&WC, 25:16). Moreover, online heritage interpretation has not been pursued on the Visit Ironbridge website due to an assumption that online interpretation must be primarily textual.

I don’t think people sit and read websites, it’s about getting information quickly and in my mind something on the history and that side of things would be quite a bit of copy, and I try and steer away from that on our website. It’s more about quick, easy to read information, targeted exactly at what a visitor would need to actually visit somewhere (T&WC, 28:25).

Indeed, the interpretation currently featured on the WHS websites tends to be predominantly text-based and takes the format of traditional media such as a history book or guidebook and

is targeted mainly at an educated, adult audience. For instance, the interpretation on the Derwent Valley Mills website has essentially been copied directly from the WHS's nomination document (AF, 13:23). Therefore, academic information that was aimed at international experts to influence WHS designation is being presented to the general audience through the website. The BILWHS website takes a similar approach. On the Cornish Mining website, the format of the content is more amenable to a general (although educated) audience and is similar to the tone of a magazine. It makes limited use of images but there is no utilisation of diagrams or illustrative models, interactive or otherwise, to aid interpretation. Different sets of content are available that can be browsed according to different interests or theme. Yet, this is a very rudimentary choice and offers no more individualisation than a history book or a guide book indexed or divided into themes or chapters.

In the Blaenavon WHS the potential of digital technologies to tell different stories is being recognised and is something the WHS hopes to achieve through the development of 'a series of apps' (RH, 29:18). Through such an approach multiple stories could be told through using digital technology within the same physical space. For instance, several e-trail apps could be implemented for the town centre of Blaenavon according to different themes. As of 2013 only one trail currently exists within the town centre and this focuses on the public buildings in the area viewed, in general terms, through the eyes of a characterised Lewis Browning, who, as an elderly collier in 1906, published his memoirs of Blaenavon. Yet the potential exists, and is tentatively recognised, to create different versions of the trail, utilising different historical characters and themes. Such an approach may appeal to different segments of the WHS market in a greater way than a single e-trail based at a general audience. It would also offer the potential to understand the WHS from multiple perspectives.

The need to widen the market is also recognised in respect of the education sections of the various WHS websites. The current content is primarily targeted at teachers and provides

worksheets, teachers' resources and advice for schools planning a visit. Essentially this replicates the existing media as all of this content can exist and be used in a printed form. The content may be more accessible to teachers online but there is nothing particularly innovative about the current online educational content across the WHSs.

There is relatively little content aimed at children in terms of educational content or otherwise.¹⁵ The attitudes towards further developing content for a child or family audience are somewhat mixed. The Blaenavon WHS are quite keen to develop content aimed at children. TCBC's Heritage Officer acknowledged that in terms of the current digital heritage offer 'we are certainly not aiming it at children' (AT, 06:29) but when asked if she felt there was potential for aiming content at the younger audience, the response was 'yes, absolutely, a hundred per cent. We're not there yet but that is something that is absolutely what we need to be doing' (AT, 15:29). In terms of what this may entail the following ideas were suggested:

... in the next year or so we're going to be looking at some animation and that's going to be aimed at younger people... I think you can do things like online games, you can do things like an online website that's simply geared at young people with the information in an easily readable format... I would like to see a development... of a digital educational pack that the teachers can deliver online but... all the content is for young people... the possibilities are endless... (AT, 16:37).

Although their website does not specifically target children the Cornish Mining WHS's 'Cousin Jacks' app does contain child-friendly content (DB, 36:37). In an educational game entitled 'the Adventures of Cousin Jack' the user can view aspects of the WHS from the perspective of three fictionalised characters namely, 'Cousin Jowan Botallack', 'Cousin Jenny Pascoe' or 'Cousin John Cass' each of whom plays a different role in the WHS. At relevant moments, the user is presented with a map and images of the WHS accompanied by

¹⁵ The Derwent Valley Mills WHS contains a section (<http://www.derwentvalleymills.org/fun-stuff> (30 Jan 2013)), which is designed to engage with a younger audience and consists of a selection of four very basic games. With this very small exception, however, there is no content targeted at children on any of the selected websites.

a series of questions helping the user to understand the nineteenth century WHS landscape through the people's story. In respect of the website, however, the site management acknowledge that 'we've not branched down that route yet' but also point out that 'it's not a need that's been flagged up as desperate to us or a priority' (DM 12 Jun 2013, 36:37). Within the Derwent Valley Mills WHS there was recognition of the role of digital technology to engage younger people with industrial heritage in an interesting way. The WHS would like to develop content aimed at children. However, questions were raised over whether to focus on existing markets rather than investing money into attracting new markets such as families and young people who may not be traditionally the key audiences for industrial heritage (AF, 7:24).

5.5.2 Global Audiences and Remote Access

The greater availability of WHS related material and interpretative content online, the more accessible the WHS will be to a global audience. The issue of providing remote access to WHSs has resulted in differing opinions and approaches within the selected sites. Such access is strongly advocated by the Cornish Mining WHS and an extensive image gallery, video tours, as well as an extensive section with historical information is intended to allow people, irrespective of their geographic position, the ability to have some sort of experience online. The potential to create 3D modelled recreations of features of the WHS is under consideration and it is hoped to develop virtual tours of inaccessible areas of the WHS such as underground passages, funding permitting (DB, 44:36).

The historical links and legacy of the respective WHSs lend themselves to the networked age of the web, allowing people with links to the area to reconnect to the WHS through the virtual space of the web. Within the Cornish Mining WHS there is much emphasis on the diaspora and making links to geographically dispersed communities across the globe with associations with Cornish Mining.

The website was described by the WHS co-ordinator as a ‘virtual visitor centre’, which, in the absence of a single physical visitor centre, attempts to use digital space to present the WHS holistically by identifying themes relevant to the OUV of the site, showing physical sites and attractions, and allowing contact between the WHS management and their service users. Within this space the range of experiences that can be undertaken in an actual visitor centre, such as learning, enjoyment and interaction with heritage, can take place and be accessed by anyone across the globe with access to an Internet connection.

We’ve developed it [the website] almost as an online visitor centre with all of this interpretation information, there is also an image bank on there, we’ve got hundreds of images of the WHS available to view so all of that is the sort of thing you can have a look at without ever having stepped foot in Britain and that’s fantastic (DB, 27:09).

The website stresses the global impact of Cornish Mining, with tag lines such as ‘Our Mining Culture Shaped Your World’ emphasised (Cornish Mining, undated, a). The interpretative content includes a section entitled ‘the spread of Cornish Mining around the globe’ and utilises an interactive map, through which the user can explore the various locations across the world where Cornish mining had an impact (Cornish Mining, undated, e). The Cornish diaspora, the estimated six million descendants of the people who emigrated from Cornwall to seek new lives across the globe, is an audience that has been identified by the WHS and is one that can be reached remotely. The WHS receives enquiries from people wishing to learn more about their Cornish ancestry and, in addition to providing contacts in appropriate archives and repositories where records and more detailed information can be found, the WHS website can be used to provide contextualisation and help people get a sense of the place in which their ancestors lived (DB, 28:37). In this respect, it provides a space in which people can imaginatively travel to the WHS both in time and space.

... they [genealogists] can get context and so the record offices can give you the detail of your family history data but in terms of ‘what does Zennor look like?’ then you can come online and search our image bank and find out more about what was Cornish Mining? What kind of job would my ancestor have done? (DB, 28:37).

It is an aspiration of the Cornish Mining WHS to extend its boundaries to incorporate areas across the globe that best exhibit the influence of Cornish Mining. This transnational inscription would involve co-operation between disparate groups of people based in different countries and the linked interpretation of heritage sites across the world. A single WHS with different attractions and features spread around the world would increase the need for virtual exploration of the sites, as the site could not be marketed as a single destination for corporeal visits. If, for example, a person is visiting an area of the WHS in the United States, and wanted to understand the entire WHS, remote access to the rest of the site would be necessary. The WHS has noted that positive feedback has been received from people overseas related to the site's e-newsletters, indicative of the WHS's attempt to create global links utilising digital technology (DB, 25:32).

Indeed, the site's management plan deals with the issue of remote access to the Cornish Mining WHS. The site intends to extend access to people who are geographically dispersed but who may still have an association or interest in the WHS. The plan recognises the need to support 'overseas tourism linked to the diaspora' (Cornish & West Devon Mining Landscape WHS Partnership 2013, p.100). Part of the site's strategy is to use the web to provide remote access to the WHS for such people. Reference is made to some 175 areas worldwide where Cornish Mining made significant impacts and calls are made for greater international co-operation with communities in these areas (CWDMLWHS Partnership 2013, p.106). Such communities, within the UK or abroad, are afforded importance within the WHS management plan and are viewed as physical and intellectual 'points of entry' into the WHS (CWDMLWHS Partnership 2013, p.102).

5.5.2.1 Risks of Online Digital Interpretation

Whilst the personnel interviewed in the selected WHSs were broadly positive and optimistic about the potential of digital technologies in the cultural heritage tourism industry, there appeared to be some caution about its possible implications. The co-ordinator of the Derwent

Valley Mills WHS noted that whilst realistic 3D digital modelling of aspects of the WHS would provide the user the ability to virtually explore and engage with the site remotely, there is a potential danger that providing too much of an experience online may actually deter visitors from making corporeal visits.

That's great for people in New Zealand and Australia who can't afford to come all the way over the world to see these things but the worry is somebody sitting on the other side of Derby will think "oh yeah, I don't have to get off my chair now, I kind of know what that's about" (AF, 15:51).

WHSs are required by UNESCO to transmit and present their globally significant heritage to the peoples of the world and, although the World Wide Web provides an ideal opportunity to open up access to a globally dispersed audience, other imperatives mean that it is not always in a WHS's interest to do this. The conservation and protection of a site form the *raison d'être* of the 1972 World Heritage Convention UNESCO 1972, article 4) and, to ensure that these key aims are achieved, the economic sustainability of a site must be achieved or aspired to. These overarching concerns influence the DVMWHS's reservations about online digital heritage tourism. The primacy of economic imperatives may appear to 'debase' the lofty ambitions of presenting and interpreting heritage yet it is a reality that WHS managers are forced to address.

The risk of course [is] that they'll see it and then think 'oh well, I've done that now, I don't have to turn out and have a look at it'. There is always that doubt that, if we provide too much [online], people won't actually turn out and come out and, I know it's awful, spend their money and help to conserve the buildings that are there... the only way these buildings are going to survive [is] if people turn out, spend some money and actually help keep them economically viable (AF, 14:56).

An approach that is being taken in WHSs involves the introduction of digital technologies in a way that continues to encourage corporeal visits to a WHS. In the DVMWHS, digital interpretation was to form an important part of the ongoing refurbishment of Derby Silk Mill

(AF, 3:17). Similarly, in the Blaenavon WHS, the managers intended to further develop on-site digital heritage interpretation at the Blaenavon World Heritage Centre.

...we could certainly develop the interpretation at the [Blaenavon] World Heritage Centre in that [digital] direction and that is an area we want to look at because the content here is five years old now and the touch screens... are quite old hat now... so we do need to look inward to our own World Heritage Centre and see if there are any opportunities there to move more towards the digital interpretative and educational offer (RH, 27:08).

Essentially, the WHSs are, in-part, attempting to ally digital technology, which has the potential for a global, networked reach, with the local, material space of a WHS, confining its use within those boundaries. Within the Blaenavon WHS recent investment had been made towards the installation of a series of Quick Response (QR) codes and E-Trail applications in certain areas of Blaenavon town centre and relict landscape. Whilst taking advantage of smartphone technology and the mobile Internet, the interpretation intends that the visitor make a corporeal visit to the WHS and spend time exploring it, including the town centre, where, it is hoped, visitors may spend money in local businesses to contribute to the economy and the regeneration of the area (Blaenavon WHS Partnership 2013, pp.6-7).

The extent to which virtual access poses a threat to the sustainability of aspects of a WHS is explored in greater detail in chapter seven. However, whilst Parry (2007) suggests that 'dystopian' fears about online access resulting in fewer corporeal visitors to museums were unfounded, this does not mean that the digital will not have negative implications on heritage and cultural institutions in actuality (pp.62-63). Indeed, the selected WHSs comprise many features of historical and archaeological significance. These buildings and features may be utilised for a variety of functions, including for heritage tourism purposes. However, in a climate of public sector spending cuts, where digital technologies may offer cost-effective alternatives in areas such as tourist information or visitor interpretation, there is potential that such services and, by extension, the components of the WHS, could be threatened.

5.6 LIMINOID EXPERIENCES

The process of a remote visit to the WHS through digital media involves the user entering a space that is 'betwixt and between' the material or physical space, anywhere in the world, from which they are accessing the Internet and the material or physical space of the WHS. The virtual space allows an individual using a computer from their own home to view a website related to a distant space, namely a heritage site, and to explore it temporally and spatially, or to communicate with people there, without making an actual visit to the site.

The extent of this liminoid experience varies. The selected WHS websites, for example, are not particularly immersive and interactive in their current interpretative offer. Much of the content is largely representative, utilising primarily text and static imagery. They currently offer relatively little individual interaction and exhibit the characteristics of traditional media paradigms such as guide books or historical essays. As conceptualised in chapter two, heritage sites may be considered liminal sites 'betwixt and between' historical eras. There exists, within these sites, a combination of both the representative past and the actual present. Arguably, visitors to heritage sites wish to escape the routines of their everyday lives through the liminoid experience of visiting such as site. The link between past and present can be facilitated through the use of digital media. Digital simulation models and interpretative technologies such as augmented reality attempt to bridge the gap between the past and present and thereby offer qualitatively different experiences.

In terms of the visitor experience, the Cornish Mining WHS intends to optimise 'sensory experience to attract wider, more diverse audiences... improving access for all' (Cornwall & West Devon Mining Landscape WHS Partnership 2013, p.100). This presents the opportunity for the World Wide Web to be utilised to provide immersive experiences that are visual, participatory and liminal. In both the Derwent Valley Mills and the Cornish Mining WHS, 3D modelling is being considered. In the case of the latter, it is hoped that, funding permitting, people will eventually be able to make virtual explorations of accurate

digital models of underground workings within the WHS (DB, 43:56). This would create a more immersive form of interpretation experience and would provide a deeper liminoid experience than the current interpretative offer.

As discussed above, there is evidence that the selected WHSs are showing a degree of reticence about investing into the development of immersive interpretative features on the websites and are instead focusing greater attention onto the development of digital features that can be enjoyed during a corporeal visit to the WHS. This includes augmented reality, whereby an individual, using a smartphone or tablet device can visit a heritage feature and see historic imagery or recreations overlaid onto the modern day space.

Several pieces of augmented reality were installed at the BILWHS in April 2013. In these cases, there has been an attempt to use the space afforded by digital technology to allow for a liminoid experience whereby the user can be ‘transported’, imaginatively and visually at least, to another time. However, unlike the use of the website, which can be accessed remotely, the experience needs to take place in the physical or actual space in the WHS. To an extent this is to satisfy the economic imperatives facing WHS, namely to encourage corporeal visits to the area in the hope of increasing footfall, overnight stays and wider tourist investment in the area. The use of digital technology in this way also signifies the desire to create a liminoid experience for the service user in a way which may not be achievable through an online space like the website.

... when you come to a site you want to soak in the atmosphere. I don't think digital technology that we've got currently does that... I think as the digital increases and people get more used to using the things like the QR codes, like the augmented reality trails, things like that, I think then over time, the experience of digital technology will change and they'll use it more in a recreational sense. I personally don't think we are there yet in that way, I think we're getting there but I don't think our offer is quite strong enough yet... (AT, 07:48).

It was stressed that that digital heritage in the Blaenavon WHS was very much in a developmental stage but the intention was that digital technology be used to create a sense of place and time in order to enhance the service user's experience. In the instances of augmented reality described above, the interpretation has been implemented in areas of the WHS in which the present day condition of the physical space does not necessarily reflect how that space would have appeared during the nineteenth century. It therefore attempts to interpret specific features within the WHS temporal-spatially using digital technology and imagery. The DVM Co-ordinator expressed a desire to carry out similar digital activities, making greater use of historical images so that people can envisage parts of the WHS during its nineteenth century heyday (AF, 29:06). Such interpretation goes beyond the traditional paradigms and presents the physical space of the WHS in a much more immersive way, allowing for a liminoid experience.

The Blaenavon WHS has also invested in a series of Quick Response (QR) codes that have been installed near historical buildings or interesting features. The majority of the QR codes feature text or images and essentially play the role of interpretation panels, albeit interpretation panels viewable only through a smartphone with the code itself taking up a physical space no larger than a small disc. Certain QR codes feature film content of actors playing nineteenth century characters based on actual people who lived or worked in Blaenavon (Blaenavon WHS Partnership 2013, pp.6-7). These videos allow for mobile phone technology to present heritage as if a person from a previous time, associated with a particular space, is transcending time to communicate their story to the visitor. This is an example of digital technology being used to connect an interpretation of time, reconstructed from historical source material and imagination, to the physical space of the WHS through a virtual space.

The above approaches interpret specific elements of the WHS and do not attempt to interpret the WHS holistically, unlike the selected WHS websites, which present the disparate

landscapes through a single digital space. Although the online digital offer of the WHSs is not as immersive as the augmented reality or films this does not mean that the website is devoid of liminoid characteristics. The act of browsing websites on a computer may represent a desire for a liminoid moment, to pass the time and escape from the everyday routine. Remotely using the web to explore distant lands and find out about distant places may 'transport' the mind and the imagination to another space (Urry and Larsen 2011). The use of images or films on these websites, despite being somewhat representative, may foster such daydreaming and imagination that may in fact inspire a corporeal visit. McLuhan (1964) argues that it is human nature to extend oneself in space. This could be through corporeal travel but also through virtual space.

Heritage websites can also provide a space for formal and informal learning. McWhinney and Markos (2003) argue that education should take place through a liminal space, that allows for 'transformation', 'self-reflection' and 'reorientation' (p.16). Essentially, such a liminal space should take the learner outside the realm of the 'everyday' and offer the potential for thought and reflection (McWhinney and Markos 2003, p.18). Heritage can offer this through the unusual setting of a site betwixt and between historical eras. The web allows for an individually negotiable, temporal-spatial exploration of a heritage site, thereby presenting multiple possibilities for heritage interpretation and educational programmes. The computer generated simulation of an historical site may create a liminoid space in which belief can be suspended and various roles can be undertaken. For example, interactive virtual spaces could include games in which a participant may assume the role or of an historical character, such as a coalminer or an industrialist. Through such a liminal experience, the user would have to consider their character's motivations, strengths and weaknesses and so on. Through such anonymous role playing, the user may empathise with other people in the past thereby increasing understanding of the WHS. Educational outcomes would be generated in the liminoid space of the web and potentially inspire people to visit. It could

also create better informed and knowledgeable visitors, who would be better equipped to understand the site and explore it in greater depth, corporeally.

5.7 CONCLUSION

This chapter has examined the context in which WHS personnel in industrial sites develop digital strategy and has attempted to identify and conceptualise the key aspirations and objectives. Across the WHSs, it is intended to encourage corporeal visits to the WHS and consequent economic regeneration through the provision of online marketing, promotion and visitor information. All of the selected WHSs, with the exception of the Visit Ironbridge website which exclusively focuses on the marketing and promotion of the area as a tourism destination, also attempt to present the OUV of the WHS through online heritage interpretation, increasing remote access to the WHS and providing some degree of educational engagement. All of the sites, apart from Visit Ironbridge, therefore set themselves extensive remits and arguably attempt to be all things to all people, a criticism which has been levelled at WHSs on a more general level (Smith et al 2006, p.112).

The extent to which digital technology is being utilised to successfully achieve these objectives varies. Traditional paradigms are reflected in the online space in numerous respects, for instance the presentation of visitor information for many of the sites simply includes an image of an attraction and some basic information, thereby taking the form of a traditional tourism leaflet or brochure, albeit one that can be accessed online. Similarly, the online interpretation on the websites is primarily textual with some images and reflects the format of traditional guidebooks or historical articles and does not utilise the potential of new technologies to produce forms of interpretation such as interactive digital models. The online presence of the industrial WHSs therefore is still primarily representative rather than being a space in which real and participatory activities take place. Nevertheless, a theme that has emerged from the strategy documents and interviews is that, in all of the selected sites,

digital heritage and tourism is viewed as something relatively new and is regarded as an evolving space or a work in progress.

Despite some caution over the risk that remote access to WHSs may negatively impact on corporeal visits, WHS managers are generally optimistic about the opportunities that digital technologies can bring. The aspirations for the future include moves towards deeper liminoid experiences, which will allow users to explore and negotiate spaces which are betwixt and between the present day and past of the WHS. This may include the development of more virtual tours, laser scanning, 3D modelling and digital recreations of key features; multiple audience engagement with multi-layered interpretation; and greater use of on-site interpretation, including augmented reality at selected locations to create temporal-spatial understanding or experiences of the WHS.

The ideas and aspirations of individual officers afford some degree of originality in the formulation of digital heritage tourism strategy yet the scope for such development is constrained through structures, including budgetary and funding challenges; staffing commitment; staff skills and organisational culture; local, regional, national and global policies and strategies; technological trends and feasibility as well as the site's OUV. The strength of these various constraints varies and the research has shown that the impact of the various factors differs from site to site.

6 THE PRACTICE AND EXPECTATIONS OF THE AUDIENCE OF DIGITAL CULTURAL HERITAGE TOURISM

6.1 INTRODUCTION

This chapter examines and theorises, at length, the experience and expectations of the audience of digital cultural heritage. The chapter utilises and presents data gathered through quantitative research, namely an online survey of current web users, as well as qualitative interviews taken with a small sample of cultural heritage service users. The chapter firstly identifies the current audience of digital cultural heritage tourism, before offering an analysis on these audience demographics. Furthermore, the chapter then explores the motivations and expectations that people have when visiting a heritage destination and consideration is given to how these expectations influence users' experiences and aspirations for digital technologies in the cultural heritage tourism context. The chapter examines the current engagement that audiences have with the web in terms of accessing heritage and tourism services, as well as examining attitudes, expectations and behaviour in respect of the use of digital technologies as part of an actual visit to a heritage site.

Through an online content analysis and virtual ethnography, the chapter looks at how the participatory or so-called Web 2.0 technologies are currently being engaged with by the audiences of the selected industrial WHSs. It examines the motivations of people in participating in virtual communities and evaluates the nature and culture of these forms of cultural heritage expression.

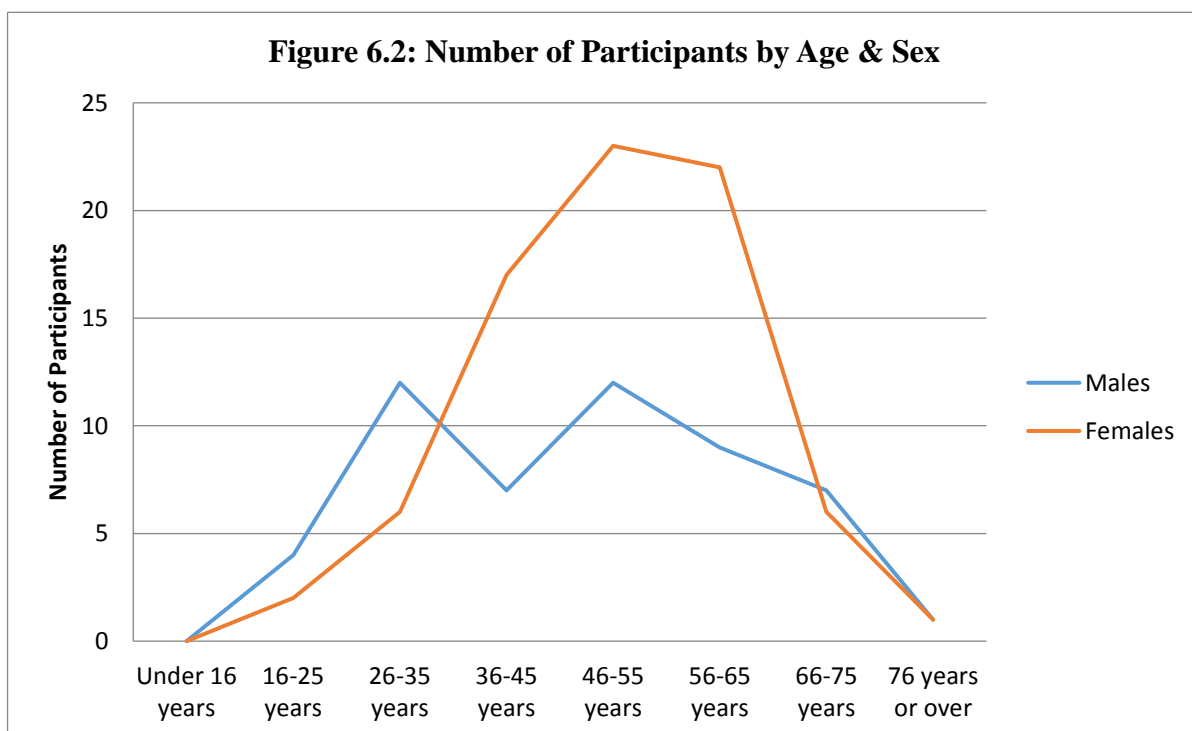
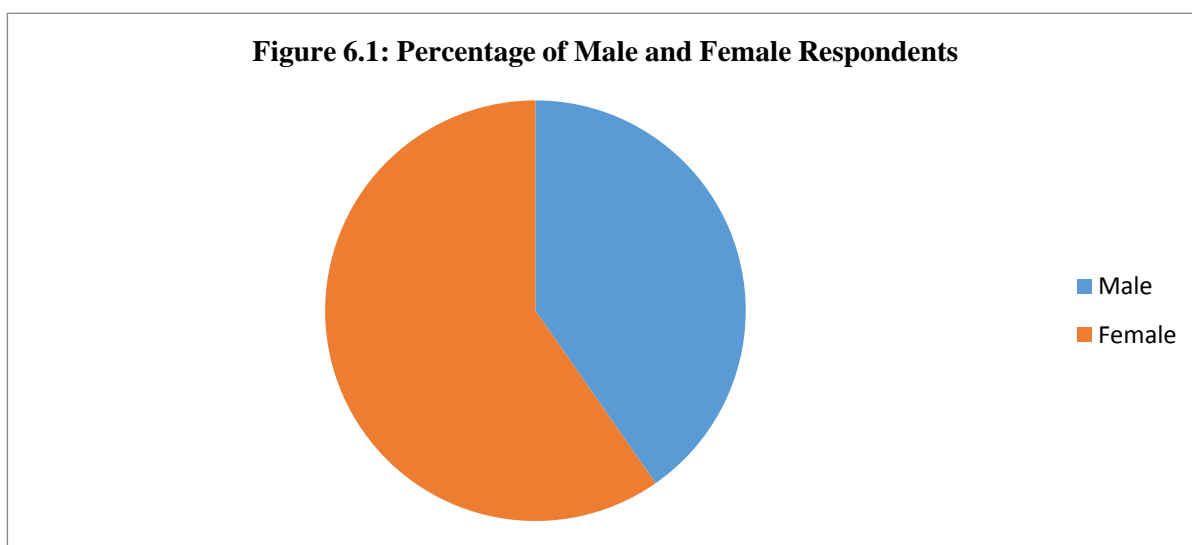
6.2 THE ONLINE AUDIENCE

In order to understand the expectations of cultural heritage tourism, it is first necessary to establish who the audience currently comprises. The data gathered through the online survey suggests a number of characteristics, relating to sex, age, educational attainment, occupation and place of residence. This section outlines the basic findings of the survey research and is

followed by an analysis of what these findings suggest about the characteristics and nature of the online audience of digital heritage tourism.

6.2.1 Sex

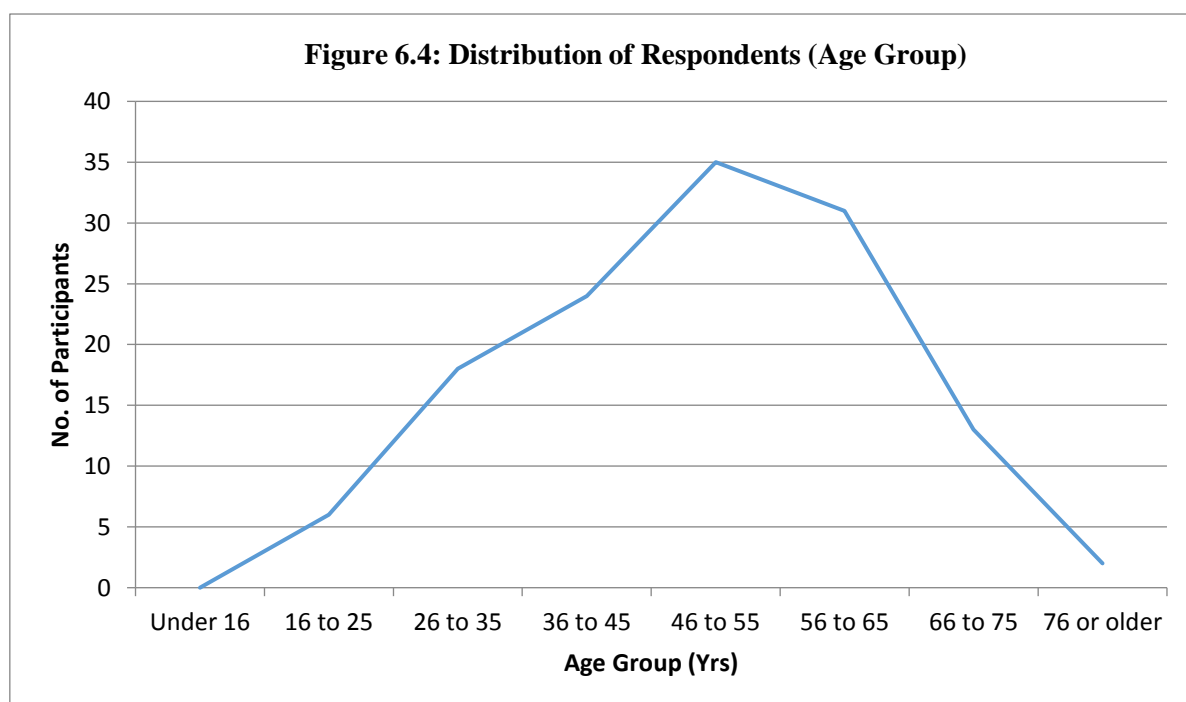
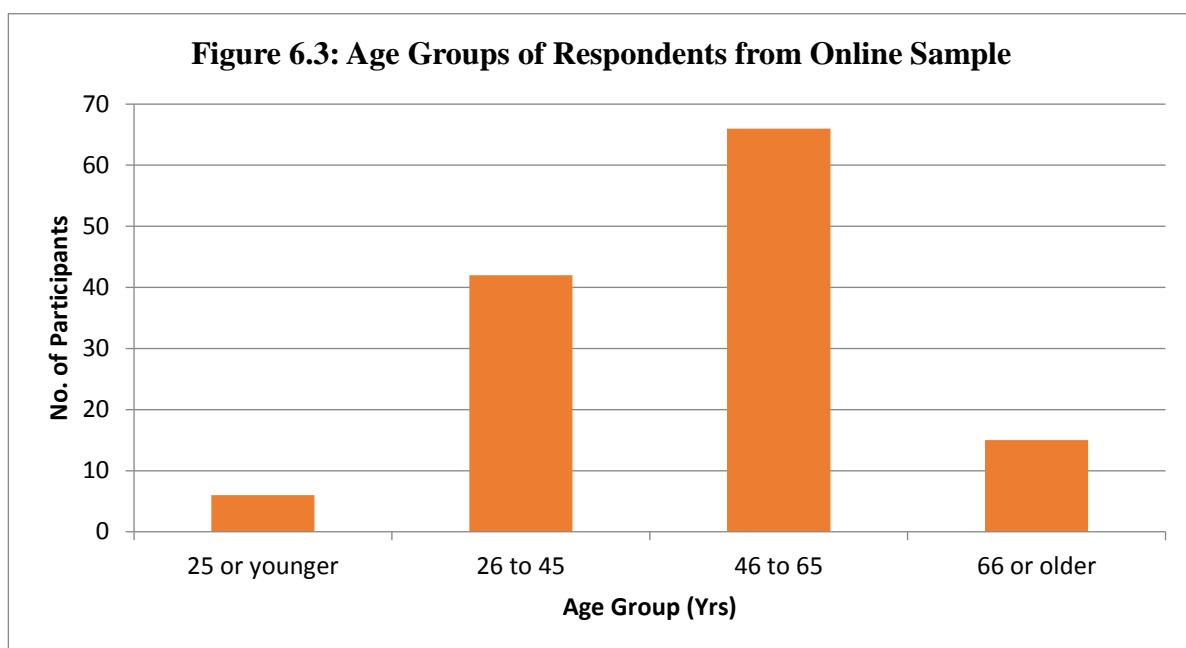
The results reveal that of the online respondents to the questionnaire some (52) 40.3% were male and some (77) 59.7% were female.¹⁶



¹⁶ Once they had commenced the survey, women were marginally more likely to complete it, with a figure of 40% male, 60% female for the completed responses. Some caution needs to be exercised – it is possible that women may be more willing to complete a survey than men, which may partly account for the slight gender imbalance.

6.2.2 Age

The data obtained from the sample indicates that the audience for the online cultural heritage tourism social networking websites tends to be predominantly in the 46-65 years age group. There was relatively little evidence of online engagement with the under 25 years age group, with not a single respondent being under 16 years. There was some activity evident within the older age group, especially the 66-75 years bracket, although a sharp drop in the over 76 years group was observed.



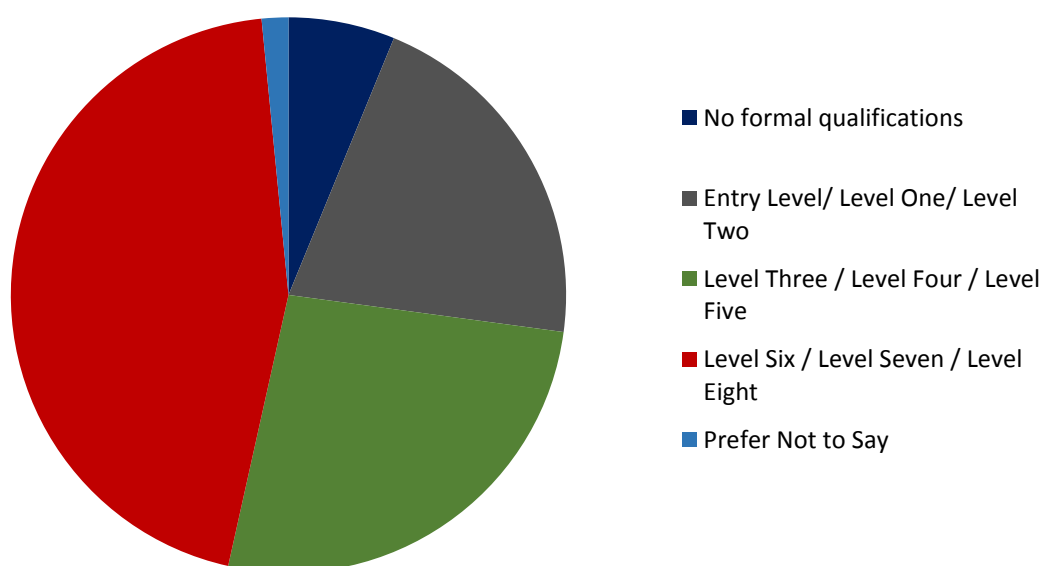
6.2.3 Educational Attainment

Among the sample of online users, a large proportion of people had been formally educated to a high standard, with some 44.96% of the participants possessing a university degree, postgraduate qualification or equivalent. An additional 26.4% had obtained a level three qualification or above, meaning some 71.4% of the respondents have secured at least the equivalent of a Further Education qualification.

Table 6.1. Level of Educational Attainment.¹⁷

Qualification Level	Male (52 responses)	Female (77 responses)	Total (129 responses)
No formal qualifications	4 (7.7% of the male sample) 3% of total	4 (5.2% of the female sample) 3% of total	8 (6.2%)
Entry Level/ Level One/ Level Two	9 (17.3%) 7% of total	18 (23.4%) 14% of total	27 (20.9%)
Level Three / Level Four / Level Five	13 (25%) 10.1% of total	21 (27.3%) 16.3% of total	34 (26.4%)
Level Six / Level Seven / Level Eight	24 (46.2%) 18.6% of total	34 (44.2%) 26.4% of total	58 (45%)
Prefer Not to Say	2 (3.8%) 1.6% of total	0 (0%) 0% of total	2 (1.6%)

Figure 6.5: Highest Level of Educational Attainment among the Respondents



¹⁷ Qualifications categorised by the researcher into the qualification bands set out by Ofqual frameworks

The online audience for cultural heritage is therefore an educated one, with presumably high standards of traditional literacy and skills. When cross-referenced with the 'sex' category, it was revealed that some 26.4% of the respondents were women educated at Higher Education level or above, the largest group determined by education/sex within the study. As a percentage of the male/female category, some 46.2% of males and 44.2% of females purported to be educated to that standard respectively, thereby indicating high levels of educational among both the male and female segments of the audience.

The high proportion of qualified people correlates with Van Dijk's thesis concerning skills access that indicates that the more 'traditional' skills and literacies that a person possesses, the more likely they are to have the necessary ICT skills to be digitally included (2005, p.72). It is also possible that the wider perspectives and insights offered through a full education means that well-educated people look at heritage sites and their communities with enquiring minds and actively want to seek out information and understand the area's significance on a variety of levels.

6.2.4 Occupation

109 people provided information relating to occupation. 29 of these respondents (26.6% of the total) were retired. There was a wide mix of occupations with professions including accountancy, law, teaching, heritage and conservation, the civil service, local government, retail, nursing and medical practitioners, religion, administration and journalism. Two respondents stated they had no occupation and a further six identified themselves as housewives or homemakers. Five of the respondents were still in formal education. Therefore 37 (excluding students) were not in paid employment and account for over one third (33.9%) of the respondents.

6.2.5 Place of Residence

128 out of the 129 participants provided details of their place of residence. The results reveal that approximately 38 of the respondents (29.7%) reside within or very close to the selected

industrial WHSs (exact locations of houses in relation to the WHS boundaries are not available to ensure complete accuracy). Furthermore, the majority (95 of the 128 respondents) resided within a fifteen-mile radius of the selected industrial WHSs (74.2%), thereby indicating that most of the people using the social media sites for cultural heritage purposes are local in a geo-spatial sense.

In most cases, therefore, the digital audience within these social media sites are not general tourists, they are local people who typically have visited the selected WHSs but live nearby and are interested in finding out more about the area, both in terms of its history, forthcoming events and discussing news and enjoying general chat. The local nature of the audience, however, means that although an online community has emerged in relation to a WHS, the emphasis of the discussions is likely to have a local focus. This is indicative of a psychocentric audience, interested in the home and the familiar rather than an allocentric audience trying to seek out the different and the unknown (Boyd and Timothy 2006, p.58).

6.2.6 Knowledge of World Heritage Site Status

76.2% of the respondents claimed to understand what a WHS is (83.3% of male participants and 71.4% of female participants), compared to 23.8% who claimed not to. Of those who professed knowledge of the status, some 92.5% had visited at least one site, with 5% unsure. All of the participants who had visited WHSs, with the exception of just six, had visited at least one of the selected four industrial WHSs.

6.2.6.1 Heritage Sites Visited by Service Users

99% of the respondents stated that they visited heritage sites as part of their tourism activity. Only one said that they never visited heritage sites. The most popular types of heritage destination among the sample were as follows:

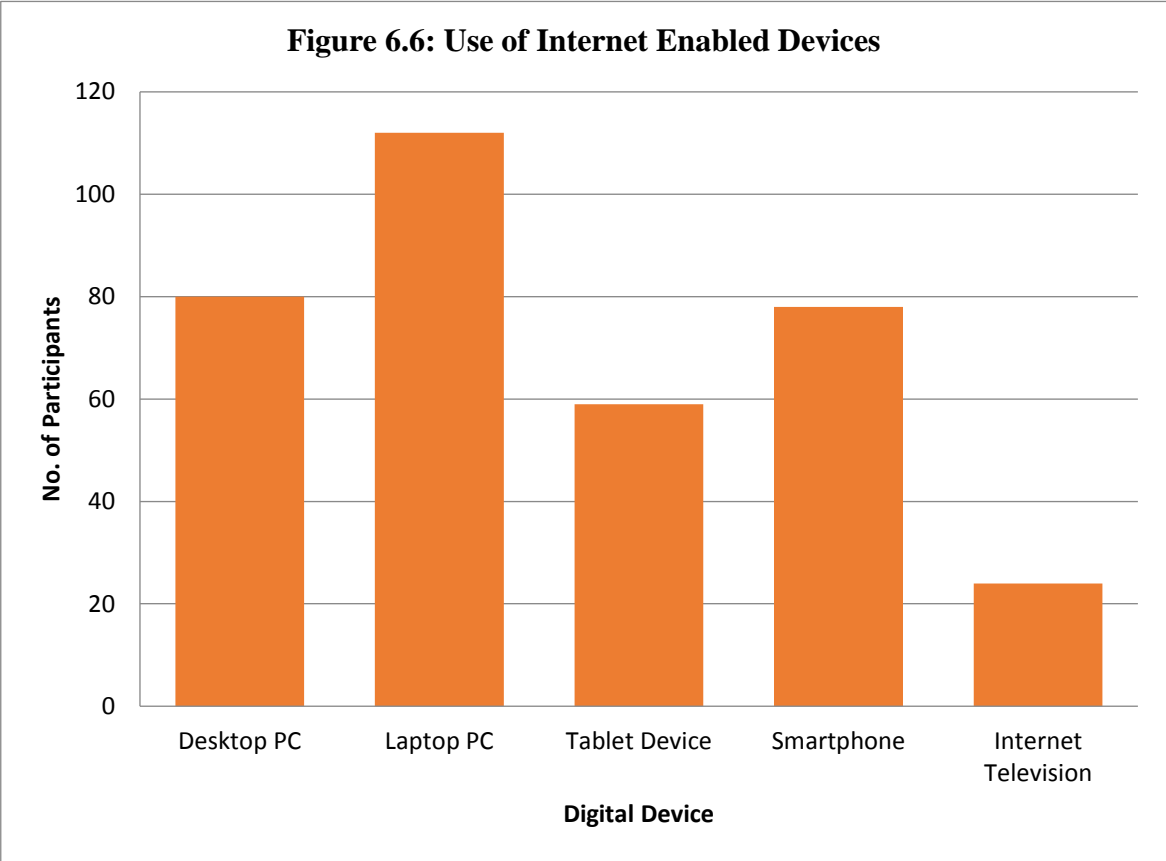
Table 6.2. Types of Heritage Destinations Visited by the Online Respondents

Type of Heritage Site	Number of Respondents	Percentage of Respondents
Castles	86	82%
Historic Cities, Towns or Villages	85	81%
Industrial Heritage Sites	80	76.2%
Natural Heritage Sites	71	67.6%
Stately Homes & Gardens	67	63.8%
Historic Landscapes	67	63.8%
Ancient or Prehistoric Remains	63	60%
Sites of Famous or Infamous Events	46	43.8%
Sites of Religious Significance	45	42.9%

Castles were the most popular heritage destinations, with historic towns and industrial heritage sites also well-visited destinations. For the selected WHSs, which are multifaceted by their nature, the most appropriate categories are ‘Historic Cities, Towns or Villages’, ‘Industrial Heritage Sites’ and ‘Historic Landscapes’. It would appear therefore, that over three quarters of the online audience are also likely to form part of the corporeal audience of the selected industrial WHSs.

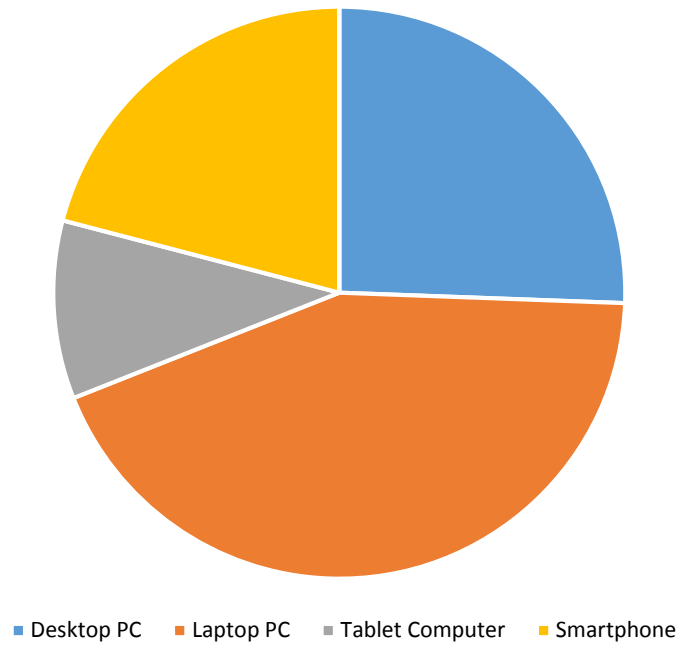
6.2.7 Use of Digital Technologies

The research sample consisted of the digitally included, namely those who at least have access to the technology and possess the skills and motivation to use the web. Among this sample, it was evident that a diverse range of Internet enabled devices were owned or used by the participants.



It can be seen that 112 out of 129 people (86.8%) used a laptop PC; 62% of people used a desktop PC; 45.7% of respondents used a tablet device; 60.5% used a smartphone with just 18.6% of people using their television to access the Internet. When asked which of these Internet enabled devices they used the most, the data showed that the traditional PC is still the preferred option with 69% of people, as some 43.4% of the respondents use their laptop computers most frequently with a further 25.6% of people making most use of their desktop PC. 10.1% of the respondents said that their tablet computer was the device which they most commonly used but a not insignificant number of people, 20.9%, primarily used their smartphones to access the Internet. Not one of the respondents claimed to use an Internet Television as their primary device to access the web.

Figure 6.7. Most Frequently Used Internet Enabled Device



When compared with age group, however, the figures show significant differences in the use of digital technologies. The table below shows the most commonly used digital device by age group.

Table 6.3: Most Frequently Used Digital Devices (Age Group)

	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56-65 yrs	66-75 yrs	76 yrs & over
Desktop PC	1 (16.7%)	5 (27.8%)	5 (20.8%)	11 (31.4%)	5 (16.1%)	6 (46.2%)	0 (0%)
Laptop PC	3 (50%)	3 (16.7%)	6 (25%)	19 (54.3%)	19 (61.3%)	5 (38.5%)	1 (50%)
Tablet Device	1 (16.7%)	2 (11.1%)	4 (16.7%)	1 (2.9%)	3 (9.7%)	1 (7.7%)	1 (50%)
Smart Phone	1 (16.7%)	8 (44.4%)	9 (37.5%)	4 (11.4%)	4 (12.9%)	1 (7.7%)	0 (0%)

Table 6.4: Use of Digital Devices According to Age Group (All Usage, Not Most Frequent)

	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56-65 yrs	66-75 yrs	76 yrs & over
Desktop PC	5 (83.3%)	14 (77.8%)	11 (45.8%)	23 (65.7%)	18 (58.1%)	8 (46.2%)	1 (50%)
Laptop PC	4 (66.7%)	16 (88.9%)	22 (91.7%)	32 (91.4%)	27 (87.1%)	10 (76.9%)	1 (50%)
Tablet Device	3 (50%)	11 (61.1%)	14 (58.3%)	18 (51.4%)	9 (29%)	3 (23.1%)	1 (50%)
Smart Phone	4 (66.7%)	15 (83.3%)	20 (83.3%)	23 (65.7%)	11 (35.5%)	5 (38.5%)	0 (0%)

The data suggests that the participants included within the study have a wide range of devices available to them, with multiple Internet devices being the norm across the 26-65 years age group. Traditional PCs, such as desktop computers or laptops, are used by the vast majority of the participants. Smartphone usage is well over 50% among the 16-55 years age group, with the highest usage being among 26 to 45 year olds at 83.3%. It drops sharply, however, in the 56-65 age group to 35.5%. Of course, this data only reflects the digitally included, who are actively engaged on the web and only includes a sample of people who are part of a cultural heritage tourism audience on the web. The digitally excluded and those without the overt interest in heritage and tourism are not included within this data.

6.3 ANALYSIS OF AUDIENCE CHARACTERISTICS

The statistics suggest that the online audience of digital heritage tourism is predominantly female, middle aged, well-educated and local in relation to the selected industrial WHSs. The audience is generally knowledgeable about what a WHS is and have, for the most part, visited one or more of the selected industrial WHSs. The participants visit heritage sites as part of their tourism habits, and historic towns and industrial heritage sites are among the most popular destinations with upwards of three quarters of participants claiming to visit such destinations.

The age group of this online audience reflects, to an extent, the perception of WHS managers about their general audience, who note that their attractions, beyond organised educational trips, do not tend to appeal to the younger age groups. For instance, the officer at Telford & Wrekin Council noted that the Ironbridge Gorge WHS was more popular with retired people than the younger audiences.

Our recent research has highlighted that we're very much an active-retired type destination and we are not a young person's destination (T&WC, 7:59).

This theme was articulated in respect of all the case studies.

...it has tended to be the older market, sort of the people whose families are just leaving home and are starting to have that spare time again, and retired people as well (AF, 7:24).

...They [the main markets] tend to be, as I say, the older age groups, 40 plus. They tend to come in couples or small family groups (DB, 9:20).

...industrial heritage is historically probably more for the older generation...so I would say it is certainly probably your grey pounders who relate to industry a bit more. You know, people like characters like Fred Dibnah, and what have you, don't necessarily appeal to youngsters (RH, 6:30).

All of the interviewees expressed a desire and a genuine intention to widen the appeal of industrial heritage but all confessed that the older age groups remain the core audience. It would appear that this audience demographic is also reflected in the online digital manifestations of the WHSs. Yet, the virtual spaces offered by the Internet are available to great numbers of younger people who have access to it through a range of devices. It appears, however, that relatively few are accessing online content associated with heritage.

It can be postulated that the young have a range of interests, including cultural pursuits such as celebrities, popular culture, music, sport etc. that can be explored and expressed online. Issues that have immediacy and relevance to their everyday lives are likely to be prioritised. Cultural heritage is unlikely to be a priority unless it relates to school or college work. 'Polly', a participant within the 16-25 age group, stated that her use of the Internet primarily involved the seeking out of information for university work; using it as a source of entertainment by viewing content on services such as YouTube or the BBC iPlayer; carrying out financial transactions online; and using social media. In terms of the latter, Polly claims to use social media sites such as Facebook to keep in contact with friends and to upload photographs related to events taking place in her life. She also uses LinkedIn, as a professional networking tool, to build and maintain relationships related to her career. She claimed to use Twitter to seek out news and information about celebrities and to be prompted towards information related to her interests, such as reviews of the latest books or films. Furthermore, she purports to use social media sites 'all the time', as 'they're addictive' and

have come to form a ubiquitous part of her life, primarily accessed through the use of a smartphone (Polly, 00:23).

In Polly's case, she has an interest in heritage and history and enjoys visiting museums as part of her leisure activities. Her social media activities reflect her interests and therefore she tends to 'like' or 'follow' museums and cultural heritage attractions on Facebook and Twitter (Polly, 02:15). It is, however, a somewhat passive relationship and she primarily uses such services to read content produced by others rather than to actively participate within these spaces. She noted that if she had enjoyed a visit to a heritage site she would 'probably tweet them or like their Facebook page' but she does not comment or contribute any material to these online communities (Polly, 32:47). Polly could not explain why she did not actively participate in online heritage but clearly did not feel the need. Her passive use of online heritage was primarily due to an interest in the subject and without this interest she would not be exposed to cultural heritage online. Heritage has to compete with the digital manifestations of a huge range of interests and leisure pursuits and with only a limited amount of time available for busy people to occupy themselves, it is not necessarily going to be a priority.

Younger people, due to their youth, may lack the personal experience and memory to be desirous of participating in an online heritage forum. In a wider context, Jenkins (2008) observes that some users may be reticent to participate in an online community because they do not feel confident that they have anything meaningful to contribute (p.53). Indeed, during qualitative interviews with the service users, levels of online usage of interactive and participatory media were low. 'William', a participant in the 16-25-year age group, and a resident of Blaenavon, stated that whilst he was interested in history and enjoyed visiting heritage sites he did not participate in online heritage. This was largely because he felt he had nothing to contribute.

I just have no information to share, which is worth putting online... I don't think that there is anything that I do or know that would benefit other people (William, 44:54).

While this can be partly attributed to personality type or the individual's self-confidence in publicly posting information online, the point that the individual needs to have some sort of relationship with the site in order to participate is pertinent. In order to be an active participant, the user would need to have memories of the site, relevant content or stories to tell about it; knowledge of the history or significance of the site; or an active interest in communicating with others to find out more about its past and the present. The more tenuous the link a person has with the site, the less likely they are to be active users. Knowledge and the ability to share interesting comments or insights provide a cultural capital or currency that people need to have to participate fully in an online space.

Time is a constraint, especially for people attempting to balance work commitments with bringing up a young family and any other social interests. Even if heritage is of interest, it is unlikely to be a priority. 'Julia', a schoolteacher in the 36-45 age category, and mother of two young children, noted that she was very interested in history and would like to spend time engaging with heritage online but found that due to the other demands in her life, it was not something that she felt could be prioritised.

...I think it's just time with me, I don't really have a lot of extra free time... I just don't seem to have the time to explore [the Internet] a lot. I mean if I was younger without kids, I probably would do a lot more nowadays than what I do do but back then, we didn't have this stuff [digital technology]... But I do know once I get involved in something [online], I then get sucked in and I'm there all night with it so I try not to start that sometimes I suppose (Julia, 38:18).

Entering into the liminoid space of the virtual was regarded as being a time consuming and somewhat addictive experience. Involvement within the space may be avoided if it risked impinging on time that needed to be spent on more pressing concerns, such as family life. Nevertheless, that is not to say that digital heritage cannot be enjoyed and participated in as a family activity as virtual spaces are stretched into the actual. Julia observed that her children, aged five and four years, used the Internet with their father on Saturday mornings

to play educational, phonic games (Julia, 02:20). To the family the web forms a space in which education and interactivity can take place but at the same time integrating it into family life, in a similar way to how a parent may read to their child from a book, asking them questions or discussing it with them.

‘Mary’, another female interviewee in the 36-45 age group, also noted that digital technology formed a part in family activities. Mary claimed that she and her three children would play quizzes and games on an iPad or on a PC, observing that for some games, or apps, much time is spent engaging with the content (Mary, 05:46). Mary stated she liked using digital technology in this way because ‘it gets us all together and not many things do these days’ (Mary, 06:10). Similarly, ‘Polly’, in the 16-25-year age group, stated that she plays games and watches online videos with her sister and her mother (Polly, 03:16). Although none of these participants were engaging with digital heritage as a family group, it is clear that the digital space can be occupied as part of family time and poses challenges for cultural heritage to create opportunities in this space.

The results suggest there is much greater use of online digital heritage in the over 46 age group. As people reach their late 40s and 50s quite often the children will have grown up, increasing people’s time for their own hobbies and interests. Over a quarter of the respondents were retired, suggesting that such individuals may have more time available for the pursuit of pastimes. With age, of course, more memories are acquired from the experiences of youth and, with the passing of time, the material spaces from which these memories were derived physically change and many of the people who lived within them die or move away. There is perhaps a yearning for the past when things change and people get older. With the progress of age and experience, people engage in nostalgia, reminiscence and reflection about the past, thereby utilising spaces of imagination. The web provides a liminoid space in which this reflection can take place, allowing for the imaginative and representative travel to the past as well as fostering ‘real’ spaces of participation and learning

in a collaborative and shared space. The memories, old photographs, stories and knowledge that people acquire can therefore be used to provide a social currency within virtual communities, allowing people to become active participants within that space.

Figure 6.4 above suggests that people in the oldest age-groups, although being able to remember furthest back and having seen the most change, are considerably less likely to participate in the virtual spaces of the Internet. This is unlikely to be because they do not reminisce or share stories of their past – they probably do but through traditional means such as orally with friends and family, through participation in historical societies or through the production of written memoirs (Peter, 32:43). The lack of participation online may likely be attributed to digital exclusion or a lack of awareness regarding online opportunities. Whereas the recently retired people are likely to have been exposed to ICT within the workplace or other aspects of daily life, older people who have never identified a need to use computers are more likely to be digitally excluded.

‘Maureen’, who is retired, remarked that she was almost totally digitally excluded and only had access to the Internet by using her daughter as a proxy: ‘I literally do not know how to use the Internet. I’ve never had a computer, I’ve never used a computer, not even when I was working, so I don’t use it’ (Maureen, 00:10). Irrespective of her complete lack of digital inclusion, Maureen has an active interest in heritage and visits cultural heritage tourist attractions and once had membership of organisations such as the Wildlife Trust (Maureen, 29:09). Whilst she is interested in heritage and would likely enjoy the content offered through digital media, she is excluded from it.

Similarly, ‘Peter’, in the 66-75 age group, admitted that his digital skills were relatively limited, but when shown the content available through Quick Response codes at the Blaenavon WHS he lamented about the opportunities that he felt that he and others of his generation are missing because of a lack of digital engagement.

[Digital Exclusion] is a shame really because you could spend all your time, couldn't you? If you were a retired man or retired woman and with these apps and recognising and knowing these symbols [QR codes] - you could spend all your time on it (Peter, 28:00).

Even if they do have access to the Internet the levels and types of usage tends to vary (Van Dijk 2005). Concerns over privacy impact on people's use of social media and bad press associated with social media sites can be off-putting. Peter, when referring to the social media site Facebook, remarked that he 'wouldn't touch it with a barge pole' (Peter, 02:06), noting that he wished to retain his own privacy and had no interest in following the personal lives of others. Although social media was seen as a 'no-go' area, Peter noted that he had used the Internet to seek out historical information about people and places on the Internet, albeit on the more static or traditional Web 1.0 websites, which simply involves the passive reading of a website. It is more likely therefore, that if this demographic uses the web for cultural heritage or tourism purposes, it is more likely than not to be through the traditional web 1.0 sites, which are perhaps more reflective of traditional media such as books or leaflets.

6.4 THE CULTURAL HERITAGE TOURISM EXPERIENCE

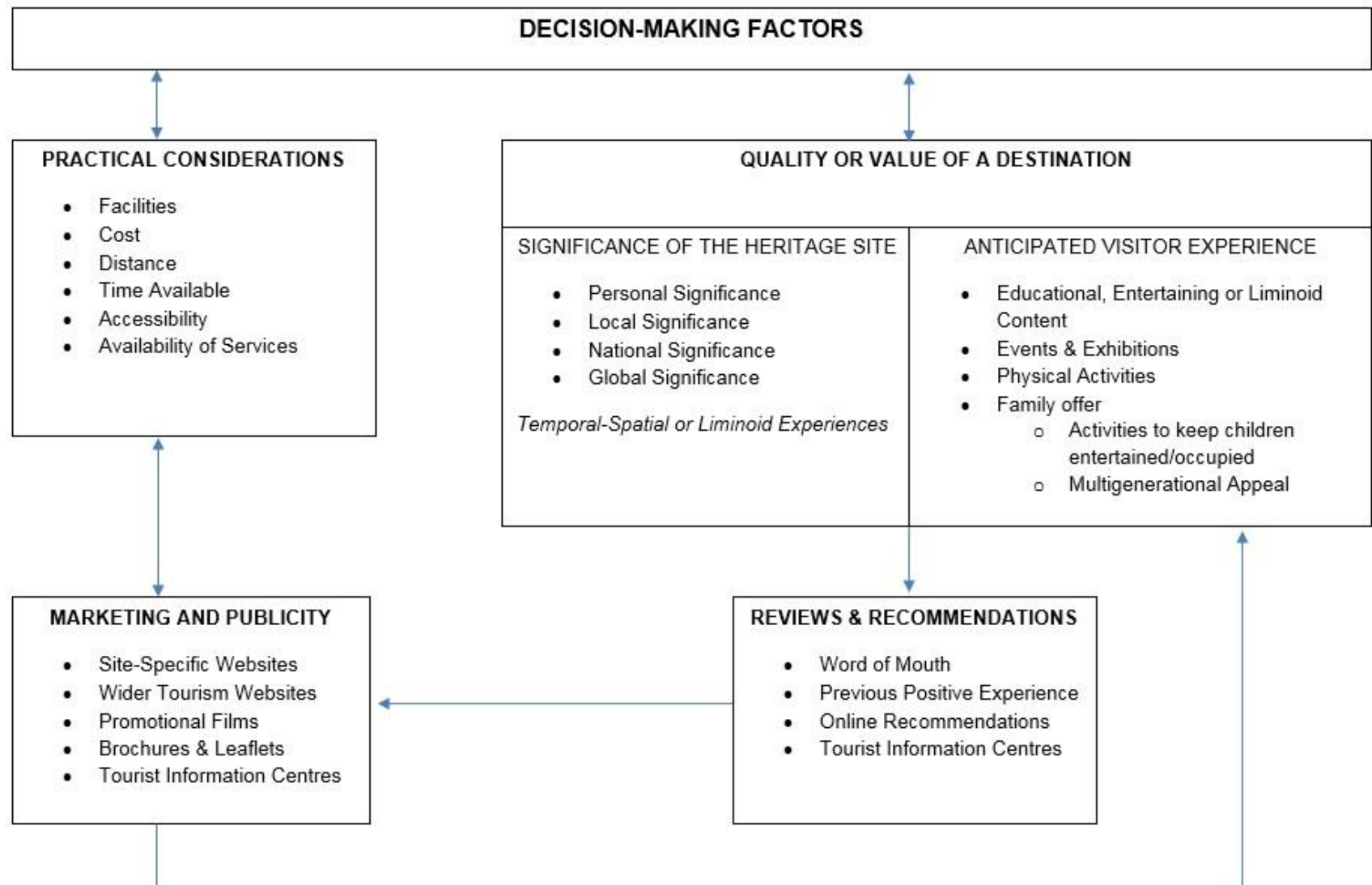
6.4.1 Tourism Behaviour

In order to understand the expectations and uses that service users make of digital technology in a tourism context, it is first necessary to explore the influences which determine an individual's decision to visit a tourist destination, particularly in the context of heritage sites. The needs that arise from these basic factors, in part, create the demand for the digital solutions that have been devised to aid the tourist experience. In research done through survey and qualitative interviews, a range of considerations were identified by service users. These could be broadly divided into two themes, namely 'practical considerations' and the 'quality or value of a destination'.

6.4.1.1 Practical Considerations

The actual practicalities of making a corporeal visit to a destination were the most elementary factors in the decision making process. The interviews revealed that the cost, distance, accessibility of a site and the time available for a visit were important considerations for potential visitors when deciding on where and when to visit. Elements such as the availability of accommodation, the suitability of opening times and the appropriateness of on-site facilities to the needs of the visitor(s) all play a role in a person's decision to make a visit to a destination, irrespective of whether it is a heritage site, museum, fairground or seaside resort.

Figure 6.8: Factors that Influence the Decision to Visit a Heritage Destination (Based on Qualitative Interviews)



6.4.1.2 The Quality of a Visit to a Heritage Site

105 of the online respondents completed the third and final section of the questionnaire, related to their use of digital technology in a heritage context. When asked what it was that they liked about heritage sites, it was clear from the qualitative responses that the temporal-spatial nature of the site was the predominant experience that people enjoyed whilst visiting. The diagram below illustrates, proportionately, the key words used by the participants to describe what they liked about the site. The most common word used was 'history', with derivative words such as 'historical' also being used frequently. Associated words such as 'past' and 'heritage' were also used. Indeed, almost all of the participants cited that they had an appreciation for the historical nature of a site, or words to that effect. 'Place', 'sites' and 'present' were also common words.

Figure 6.9: 'Word Cloud' Illustrating the Qualities People Enjoy about a Heritage Site



The connection between the past and present, the changing nature of space over time, and the use of imagination to bridge this temporal gap were themes that emerged from the data. References were made to the sense of place, 'ambience' or 'atmosphere' found within the sites and the visual experience associated with them. It was not just the site in itself that created the positive visitor experience, the interpretation or presentation of this heritage and

history were also deemed important parts of the visitor experience. Words with similar meanings such as ‘interest’, ‘interested’, ‘interpreting’, ‘teaching’, ‘learning’, ‘information’, ‘understood’, ‘educational’, ‘expand’, ‘explanation’ and ‘knowledge’ were common and are indicative of the intellectual quality and experience that people expect to get from a visit to an historical site. Terms such as ‘people’, ‘stories’, ‘life’, ‘lives’, ‘lived’ and ‘worshipped’ suggest that users want to discover more about intangible cultural heritage values and empathise with people in the past through an exploration of the life stories of people who lived in bygone times.

Peter remarked, in his interview, that he derived a form of intangible pleasure out of heritage because of the temporal-spatial nature of the physical site and liked to visit...

...places that you can see and touch and feel and get a sense of, I don't know, time... You know, that sort of thing. You get a sense of, I don't know, heritage really. It might not be my heritage but it's certainly the heritage of the land I live in... you can feel it. A sense of longevity. You know, it's been there for so many centuries probably that you, I don't know, there's something about it (Peter, 05:40).

Heritage sites provide liminoid experiences as visitors go to such destinations to escape from the routines of everyday life. Being in a space which is betwixt and between the past and the present opens up spaces of imagination and spaces of enlightenment and learning. It allows for people to imaginatively travel back in time to play with the idea of assuming new roles and statuses in a different time.¹⁸ For instance, a child may wonder and imagine what life was like for a Victorian child, working underground in the mines. People may be curious as to what it was like to be a wealthy industrialist able to enjoy the luxuries afforded by the profits of enterprise but also to comprehend the challenges that accompanied such a

¹⁸ Of course, it is beyond the realms of science to actually travel back in time and any visualisation or imagined construction of the past is based on modern interpretations and understandings of what previous eras were like. It is therefore an approximation or even playful version of what the past was like.

responsible position. This type of role-playing can be conducted at heritage sites safe in the knowledge that it is a temporary escape and somewhat playful interpretation of history.

Mary, recalling visits with her children to Tredegar House, a seventeenth century country mansion and National Trust property in south Wales, observed that the enjoyment in going to the site was, in part, derived from the playful aspect of imagining a change in time and status...

...there's nothing like the atmosphere of Tredegar House. For instance, I can remember taking my son there when he was little at Christmas time and pretending that you are at the turn of the century (Mary, 19:30).

Similarly, Maureen noted that she enjoyed going to heritage sites to immerse herself in the past but remarked 'I wouldn't want to live there [the past] but it's nice to go and have a look' (Maureen, 26:42). She noted that she liked to visit stately homes in which she could see how the upper class lived but was also interested in finding out about the less wealthy members of society (Maureen, 6:20). Maureen had visited Blaenavon Ironworks, along with the cottages in Stack Square; she recalled that during the visit she imagined 'sleeping on those lumpy beds' and contemplated how difficult life was for the people who lived in the WHS in times past.

The playful, role-playing and somewhat intangible experiences of visiting heritage sites can therefore be regarded as liminoid. This liminoid process is, to an extent, part of the anticipated experience in visiting heritage sites. They are expected to be spaces in which education, learning, imagination and enlightenment can flourish, often in an enjoyable, entertaining or playful way. The way in which digital, virtual spaces can complement these processes, or even create new and qualitatively different liminoid experiences, therefore warrants consideration.

6.5 THE EXPECTATIONS OF DIGITAL CULTURAL HERITAGE TOURISM

Section 6.4 illustrated that practical considerations and the anticipated quality of a heritage tourism destination are key motivating factors in a visitor's decision to visit. These are pertinent to the digital manifestations of the heritage-tourism experience. This section explores the expectations that the audience of cultural heritage tourism have of the digital experiences that have been established for a cultural heritage destination. It reflects on both the use and expectations of websites as a practical tool in planning a visit but also the nature of the digital as a space through which the qualities of a visitor experience can be conveyed.

6.5.1 Current Online Digital Tourism Behaviour

A website forms a virtual platform for a WHS and, as outlined in chapter five, it serves as a key promotional tool for the destination. It is generally anticipated that such websites should provide the practical information required for a corporeal visit to a heritage site or tourist destination, with some 89.5% of those surveyed online wanting to be able to access such information through the site's specific website. This was the most common and elementary need that digital tourism is expected to fulfil and is a need met by all the selected WHS websites.

The participants were asked about their general use of the Internet and digital technologies for tourism purposes. This was not specifically focused on heritage or World Heritage and the questions attempted to find out, using a digitally included sample, how people are currently using ICT as part of their tourism behaviour. 123 participants completed this section of the questionnaire and the following table shows, in percentage terms, the most substantial uses of digital technology by users for general tourism purposes. Not a single person claimed not to use digital tourism in any form. This is indicative of the ubiquity that digital technology has assumed in tourism planning processes among the digitally included population.

Table 6.5: Tourism Activities Undertaken Online by Survey Respondents

Activity	Number of Participants	Percentage of participants who had engaged in the activity
Searched for Places to Visit	109	88.6%
Searched for Accommodation	105	85.4%
Looked up Opening Times	103	83.7%
Booked Tickets Online	99	80.5%
Booked Accommodation Online	96	78%
Searched for Online Reviews	96	78%
Searched for Upcoming Events	95	77.2%
Viewed Images of a Destination	94	76.4%
Searched for Places to Eat	87	70.7%

All of the above activities had been participated in by over 70% of the participants with the main uses being the seeking of practical visitor information, including finding inspiration through searching for places to visit, reading online reviews or viewing images of the destination. The web is also being used as a space of commerce, with 80.5% of the participants having used the web to purchase tickets related to a tourist visit, and some 78% having used online services to book accommodation. This indicates that the digitally included population are comfortable with, and habitually use, digital technologies in the planning of a tourism visit. Of course, tourism websites take many forms, they may be run by the management of an organisation, they could be review websites, tourism board websites or the websites of another third party organisation or individual. Typically, the only virtual space which a WHS has direct control over is their own website. These sites, as outlined in chapter five, frequently provide more than just support for the corporeal visit. The wider expectations that people have for heritage-tourism must therefore be examined.

6.5.2 Expectations of Online Digital Heritage

Some 80% of the participants (88.1% of the male participants and 74.6% of females) claimed to have visited a website run by a heritage destination. Within heritage site websites, the participants claimed to want the following features:

Table 6.6: Features that the Online Respondents Expected on Heritage Site Websites

Feature	Number of Respondents	Percentage of Total
Practical information about visiting	94	89.5%
The history of the site	84	80%
Historic photographs, films, sketches or paintings of the site	71	67.6%
Details of upcoming events in the site	70	66.7%
Detailed information about the site's importance	62	59.05%
Historical documents or records	54	51.4%
Virtual tours of the site	43	41%
Opportunities to provide feedback	33	31.4%
Simulations or 'recreations' of the past	30	28.6%
The ability to contact the site experts online	29	27.6%
Information about how the site is managed.	25	23.8%
Opportunities to get involved with the site	23	21.9%
The ability to upload your own content	11	10.5%
The ability to communicate with other visitors	9	8.6%
Themed games	3	2.9%

The desire to have practical information about visiting the site was clear among the participants, with the vast majority expecting to find details of how to make a corporeal visit to a site on its associated website. The provision of historical content was the second most important consideration for the online visitors. Across all age groups over 60% of people

A number of themes can be inferred from the data. Information is clearly what people are seeking when using digital technology in a heritage-tourism context but this information must be used to enhance the experience, in an easily accessible, engaging and interactive manner. People generally wanted good quality, educational content and information but there was no consensus in regard to the form that the content should take. Some stated that the content should provide basic information that identifies the key features of significance in a clear and accessible way (Online Survey Respondent, No.33) whereas others wish to explore a wealth of content, looking at varied interpretation and even to follow hyperlinks to the further reading and simulacra of the original documentation and archaeological evidence that informs these interpretations in the first instance (Online Survey Respondent, No. 79). Another respondent called for digital heritage to move beyond visual representation, noting that current practice currently focuses on ‘tangible characteristics of our material culture’, thereby indicating that greater emphasis should be made on expressing intangible cultural heritage through digital technologies (Online Survey Respondent, No. 66).

Enthusiasm was also strong for visual representations of heritage sites through the use of old photographs, paintings and sketches. The use of images allows for representations of time and space and allows for people to imagine a particular space at different points in history. Indeed, in the qualitative responses, the ability to explore a space through historical timelines was identified as an expectation of digital heritage, whereby the user would be permitted to see the changing nature and meanings of space through time (Online Survey Participants, No. 4 and No. 48).

The audience of digital heritage generally recognised the positive potential of the technologies, in certain circumstances. Among the positive comments received in the online questionnaires was the belief that user-friendly technologies were a good way of engaging children. It was also felt that content targeted at children could also be accessible for a general audience (Online Survey Participant, No.104). In the qualitative interviews, Julia, a

mother of two young children, visiting the Blaenavon World Heritage Centre, remarked that her sons enjoyed playing with on-site kiosks displayed in the attraction's exhibition. One example, which the participant cited, was a scenario in which the user pretends to do the weekly shopping for a Victorian family in Blaenavon with a household budget of 240 pence per week. In the virtual shop the user is presented with numerous items of varying value with explanations of what the items would have been used for in the Victorian household. The user then has to empathise with the Victorian budget holder and evaluate the relative importance and cost of each item and spend the money appropriately. She said that if this sort of content was available on the website or an app, she would be keen for her children to use it at home after a visit (Julia, 06:01).

This is an example of the liminoid nature of the digital technologies in that it allows the user to temporarily assume a new role or identity and interact with a historically themed environment. The interpretation displays in question were relatively basic, utilising 'point and click' style technology, but the principles of liminality remain pertinent. In a post-interview discussion with Julia, which took place at one of the aforementioned touch screens at the Blaenavon World Heritage Centre, the potential development of these displays was considered. Julia, a schoolteacher, noted that the current offer would be something which would appeal to her Key Stage Three pupils as an educational tool and she would like the information to be available online or in a digital format for use in the classroom.

The educational potential of the technologies could be further developed if multi-linear consequences could be generated from the devices. For example, in the digital Victorian household budget scenario, if the user's Victorian avatar purchased beer and expensive clothing from the budget whilst neglecting to pay rent or buy sufficient food for the family, what would the consequences be for such a person? In this situation, the digital display could then proceed to an interpretation of the workhouse, poverty and the lives and circumstances of people who did fall on hard times for whatever reason, even providing some real-life

examples from historical sources. Such an approach could help develop empathy with a character and may offer new perspectives on a visit to the site.

Maureen, in her qualitative interview, described similar multi-linear interpretation that she had experienced at Nottingham Gaol, albeit in a non-digital format. She was impressed by the site's approach in which visitors assumed the role of a character when they entered the attraction and experienced an interpretation of how the criminal justice and penal system operated. The tourist assumed the guise of an eighteenth or nineteenth century defendant as they stood trial for committing one of a variety of crimes and ultimately faced punishment (Maureen, 24:40). This provided a fun and entertaining insight into a dark and serious subject. The liminoid experience of playing with the idea of being a nineteenth century criminal provides nothing more than a temporary escape from modern life and cannot replicate the true environmental conditions of these prisons with the genuine fear and uncertainty that the real-life prisoners must have faced. Nevertheless, the historical interpretation of the heritage site, makes for an engaging and interactive visitor experience. As discussed above, the digital has much potential for exploring these multi-linear interpretations of the past, including through a personal or character-based approach in which people can temporarily change statuses and view an interpretation of the past through the eyes of another.

A respondent to the online survey described on-site digital interpretation as being a 'great way of encouraging interaction' (Online Survey Respondent No. 104) whereas another cited the digital kiosks in the Churchill War Rooms in London as being effective because they allowed interaction with source material and historical evidence to help the user form their own interpretation of the past (Online Survey Respondent No. 66). Another participant noted that the technologies enhanced the visitor experience by making it 'more interesting, more hands on, more alive' (Online Survey Respondent, No. 59). Digital technologies have the

potential to hold detailed information and simulacra of historical documents and to be able to present them in an interpretative, multi-audience, interactive and liminoid manner.

One participant in the online survey called for a study network to be formed in which resources can be created that link themes to wider sites, allowing for the interrelationship between sites to be fully explored (Online Survey Respondent, No. 85). For instance, that would allow linkage between themes in the Blaenavon WHS, such as iron production, to be linked to the developments in Coalbrookdale and the Ironbridge Gorge and other locations. The Cornish Mining WHS with its focus on the global impacts of the Cornish mining industry and the diaspora, would have much scope to develop this form of interpretation. Similarly, another participant requested greater linkage to archive material, using digital media to make these connections (Online Survey Respondent, No. 79). Links between the archive material and interpretative content could allow for a multi-audience engagement, allowing greater historical depth and providing access to the historical evidence for the interested service user.

When asked how they would like to see digital heritage tourism develop in the future, 33 of the 105 participants (31.4%) made suggestions. Generally, the user comments were enthusiastic and optimistic about the future development of ICT within the cultural heritage environment. Only one person stated that they would rather there be no digital interpretation at sites (Online Survey Respondent, No. 128). Caution, however, was recommended by a number of respondents:

Too many authorities assume that all that anyone wants is digital. In my experience this is not the case. A mixture is far more user friendly (Online Survey Respondent No. 112, female, aged 56-65 years).

[The] use of digital displays / interpretation is important but only if it's well designed, accessible, layered and improves the experience of the user. Digital interaction for its own sake is a poor use of funds and puts off users (Online Survey Respondent No. 13, male, aged 46-55 years).

The message being articulated is that digital projects must be appropriately targeted, be based on quality information and complement other forms of interpretation on-site. It is not the most important element of the visitor experience and should serve the site rather than attempt to replace it. Indeed, one commentator noted that digital heritage tourism should ‘become [an] accurate information source not just ‘funfair’ entertainment. These shouldn’t be mutually exclusive’. The participant argued that ‘historical experts’ should have a greater input into the development of digital interpretation at heritage sites (Online Survey Respondent No.129). Indeed, multidisciplinary planning and good quality content are essential elements in producing high standards of digital interpretation.

Bell (2009) argues that the Internet is ‘an imaginative, even imaginary space, filled up with ideas and experiences, fear and excitement, banality and wonder’ (p.31). Indeed, its liminoid nature potentially allows for interactivity, experimentation and individual negotiation to help guide a user through a WHS intellectually, or even physically. The digital affords the opportunity to create multi-layered interpretation that can be personalised to the individual user’s needs. Therefore, there is potential for WHS managers to develop virtual interpretation that can be used to provide information on a wealth of themes, from different perspectives, and targeted at different audiences, abilities and interest-levels. Unlike traditional interpretation media, such as exhibition boards, where the limitations of space pose a challenge, the potentially infinite space of the digital allows for these multiple interpretations and perspectives to be expressed, thereby reducing the need to just produce content that is aimed solely at a generic audience. These possibilities therefore pose challenges to WHS managers to produce content that can meet the varied and heterogeneous needs of their audience.

6.6 THE USE OF PARTICIPATORY SPACES

In terms of the expectations and usage of digital cultural heritage tourism described in section 6.5, themes such as interaction and participation resonate. The participatory elements

of digital cultural heritage tourism are more likely to take place remotely and not during an actual corporeal visit, largely due to the current limited offer of the latter within the WHSs. This section looks at how users are currently utilising technologies to participate with cultural heritage tourism online.

The web, especially the so-called web 2.0 technologies, allows for participation, communication and engagement in real-time, and also affords opportunities for individualised negotiation of content in the virtual space. The current practice, however, suggests that the audience of online digital heritage tourism are currently more comfortable with the traditional paradigms. For example, common activities conducted online include looking up historical information or viewing old photographs. Of course, written text and photographic records of the past are not unique to Internet and exist in other forms, particularly books. In this respect, what people want and expect (or are at least satisfied with) on the web is essentially an online version of a guidebook, brochure or leaflet. This does not explore the full potential of digital technology and the web. Indeed, although people claim to want historical information from websites, the demand for features such as computer generated simulations or ‘recreations’ of the past was relatively low at 28.6% as was the demand for interactive themed games at just 2.9%. The demand could be low, however, due to a lack of a familiarity or awareness of these features rather than people actively opposing them.

Similarly, with people’s online tourism habits, with the exception of the activity of purchasing accommodation or tickets, the activities carried out were largely passive in the respect that people are simply receiving material provided and produced by others. The following activities, which involve greater individual negotiability in interpretative content, enfranchisement, and participation through user generated content, were carried out by noticeably fewer people.

Table 6.7. Participatory Activities Undertaken Online by Participants

Activity	Number of Participants	Percentage of participants who had engaged in the activity
Viewed a Virtual Tour	60	48.7%
Followed a Destination on Social Media	51	41.5%
Written a review about an attraction or accommodation provider	50	40.7%
Contacted staff at a destination/attraction online	48	39%
Downloaded walking trails	38	30.9%
Downloaded a destination's app	27	22%
Purchased Gifts from an Attraction Online	22	17.9%

These figures suggest that for certain, more participatory activities, the digital has only made a partial impact. The participatory nature of the web appears to be a relatively low priority to the users, despite this being a sample of digitally included people who are users of social media. Only 10.5% wanted the opportunity to upload their own content to a heritage site website. There was slightly more interest in being able to communicate with specialists in heritage, with some 27.6% of users wanting a function where they could 'ask an expert'. The ability to communicate with other interested service users, however, was not so enthusiastically desired with just 8.6% of visitors wanting to do this. Service user expectations, among the online sample, appeared to be somewhat basic, with people expecting, above all else, functional information whether to aid tourism or to satisfy intellectual curiosity.

In terms of gender, there were some interesting differences. The sample included more women than men, indicating tentatively that the audience of digital heritage tourism has a female bias. Yet, when looking at the expectations of the service users, for certain activities, the male-female gap was not as pronounced. In respect of activities that primarily involve history and heritage, women, in real terms, were marginally more likely to expect these features than men but as a percentage of their gender group, it appears that the men who do

use heritage tourism websites and social media, have more specific expectations than women. For instance, 85.7% of the male participants stated they expected to find historical information on the website, compared with just 76.2% of the female participants. In real-terms, however, more women expected that than men, viz. 48 women, compared to 36 men. What this indicates is that although expectations between men and women are quite similar in quantitative terms, the male users are perhaps more likely to be using the websites for a more specific reason than women, who may use it for more general purposes, such as to seek out events information.

The only areas in which women, as a percentage of their gender group, were more likely than men to expect content were events, the ability to upload their own content, to have feedback mechanism and the ability to communicate with other service users. Nevertheless, women in actual terms outnumbered men in all of the categories, except the expectation of themed games which was exclusively wanted by male participants. In real-terms, and as a percentage of their gender group, women were more likely to be involved in the digital planning of tourist activity. For example, 83.3% of the male participants had used the Internet to seek out information about places to visit, compared with 92% of women. Of those who claimed to use the Internet to seek out places to visit, 36.7% of the respondents were men, whereas 63.3% were women. Indeed, women were ahead of men in real terms in all of the areas apart from downloading a destination's app, which fifteen men had done in comparison to twelve women. As a percentage of their gender groups, 31.3% of men had downloaded a destination's app compared to just 16% of the female participants. The limited nature of the sample, however, means that further research would be necessary to fully explore the issue of gender in relation to online digital heritage tourism.

In terms of the heritage activities that people have actually done online, 96.2% of the participants stated that they had engaged with heritage online in some form. The following activities were identified:

Table 6.8: Heritage-related Activities Undertaken Online

Feature	Number of Respondents	Percentage of Total
Viewed old photographs	91	86.7%
Sought out historical information about people or places	87	83%
Researched your family history	53	50.5%
Accessed digitised historical documents (e.g. newspapers, parish records, census)	48	45.7%
Participated in discussions about heritage (whether local, national or World Heritage)	28	26.7%
Communicated with heritage professionals	26	24.8%
Viewed virtual simulations of historic sites	24	22.9%
Done online voluntary work related to heritage or history	22	21%
Offered feedback on how a site could be managed or protected	12	11.4%
None of the above	4	3.8%

Again, in terms of actual online heritage behaviour, the greatest usage took place within the traditional paradigms, namely photographs and text-based historical information, with 86.7% and 83% of the participants claiming to have used the web for these purposes respectively. The only other heritage activity in which over half of the participants have engaged is online family history research, with 50.5% of those surveyed claiming they had used the web to seek out information about the lives of their ancestors. This activity involves the discovery of a personal and familial heritage and is typically personalised to the individual researcher. The activity is an active one in which the participant not only uses the wealth of records and resources available on the web to piece together an interpretation of their ancestors' lives, it involves sharing, collaboration, discussion and the interrogation of source material and sometimes the online publication of findings. This, often accompanied

with the viewing of old photographs of people and places and the reading of online local history information, helps the user form spaces of imagination in which they can enter an imaginary and liminoid version of the world of their ancestors and form a (partly imagined) reconstruction of these people and the environment in which they lived (Samuel 1994, pp.352-359). Similarly, some 45.7% of the individuals surveyed stated that they had used the web to access digitised versions of historical documents, meaning that a large proportion of the individuals surveyed used the web as a research tool, whether for serious academic discussion, the uncovering of local or family history or simply a basic interest.

Other participatory forms of heritage expression, such as participating in online discussions about heritage, communicating with heritage professionals, doing online voluntary work related to heritage and offering feedback about how a site could be managed or protected, were less popular with the respondents. 26.7%, 24.8%, 21% and 11.4% of the participants engaged in these activities respectively. As the sample was derived from a digitally included group of people who are interested in heritage and use the web for these purposes, it is notable that even in this interested group that the participatory elements of the web are not permeating through into the online behaviour of the majority of people. This indicates that people's use of the web for heritage purposes is, for most, still a passive experience. For the wider population, these engagement figures are likely to be much lower.

Quantitatively there are relatively few people purporting to be involved in online heritage in the youngest age groups. No participants were under the age of sixteen years but within the 16 to 25 years age group, the five participants therein appeared to be quite active in their use of digital heritage. As with the other groups the traditional forms were the most popular, with all of the participants having used the web to view old photographs and four out of the five using it to seek out historical information about people or places. Three out of the five had used the web to research their family history and two out of the five (40%) were involved in the more active forms of digital heritage, such as participating in online discussions about

heritage, communicating with heritage professionals, carrying out online voluntary work related to heritage or offering feedback about how a site could be managed or protected.

Although the sample is very small, the actual numbers for the individuals carrying out these activities is not significantly lower than those in the older age groups, which have much larger samples. For instance, 40% of the 16-25 years age group participated in the aforementioned activities, yet this figure, in quantitative terms, for certain activities was about the same or even lower than those in the youngest age group. For instance, in the 35-46 years age group, out of a sample of twenty- some four times the number in the 16-25 year age group - not one participant claimed to have offered feedback on how a site could be managed or protected, compared with two in the younger age group. Even in the group with the largest sample, viz. the 46-55 year olds, with 29 respondents, only four people claimed to have offered feedback online, representing just 13.8% of the age group.

Beyond the cultural heritage context, as outlined in chapters one and three, it is evident that the web has formed a participatory and networked space in which people can communicate, collaborate and carry out real functions. Social media sites and forums are in existence for a plethora of causes and subjects in which thousands of people are engaging in conversations and discussions in real time. Social media sites such as Facebook have memberships that comprise large numbers of people within the younger age groups. People in the younger age groups are growing up and maturing in a world in which social networking through digital media is a norm, whereas to people in the older age groups it is something new and in some cases not fully exploited or understood. The younger age groups who are active on Facebook may not be of the age where they are particularly interested in spending their leisure time using social media and the Internet to engage with cultural heritage. Some, of course, do but the figures suggest these are small in number. Nevertheless, as discussed in sections 6.2 and 6.3, the older a person gets there is a greater likelihood that they will show greater interest in history and heritage. Whereas older groups may feel more comfortable participating and

engaging in heritage using traditional methods, the social media option may become a favoured route for people now currently in the younger demographics when they reach an age where they have the time and interest to spend their leisure time involving themselves in heritage.

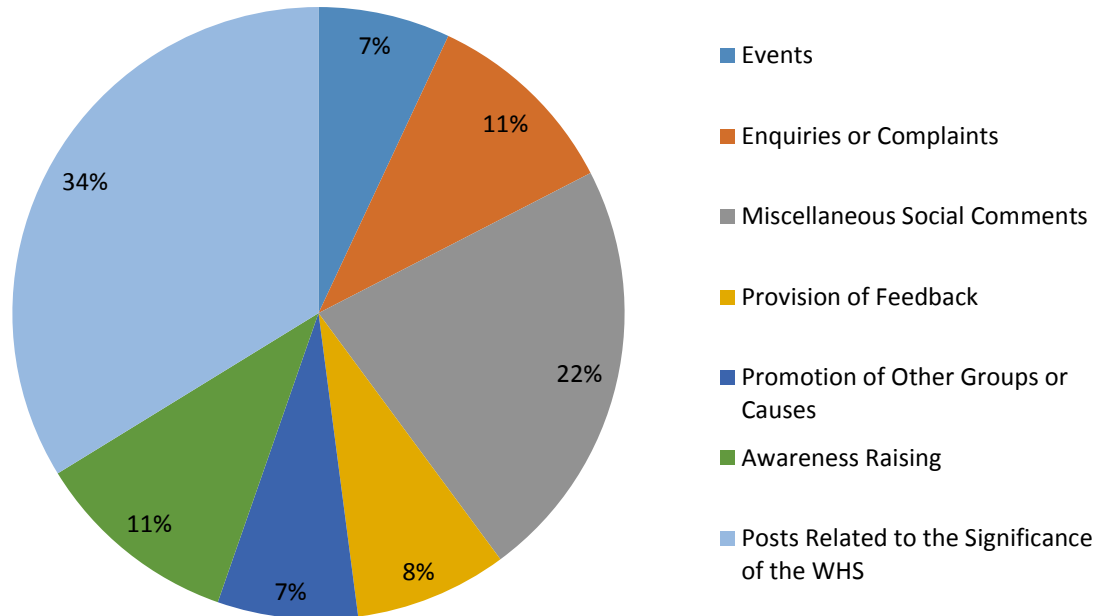
A new culture is developing where global communication is taking place through the web, the manifestations and implications it may have for the future can only be speculated at but a new way of communicating is emerging and is unlikely to go away. The forms and website styles it might take in the future may change but the principles of social networks are as old as civilisation (Castells 2010). Therefore, as the digitally savvy generations get older, it is likely that, provided they remain digitally included, they will be increasingly using the web and digital media to express heritage and discover history.

The relative lack of usage of these participatory functions may not just be apathy on the part of the service users but possibly a lack of awareness of what the web can be used for in terms of heritage. If the service providers of heritage do not provide adequately for this new form of heritage expression, it will make it more difficult for the potential of the web for cultural heritage to be fully explored and linked to established heritage sites. If the opportunities are not there, people are unlikely to be aware of the potential of these technologies and may be unable or unlikely to use them.

6.6.1 Use of Social Media by WHS Audiences

There is some evidence of people using social media to interact on pages set up by WHS managers. A content analysis made in 2013 of the previous 300 posts on each WHS Facebook page provides a breakdown of the themes that were evident when posts made by service users were codified. This gives some understanding of the current usage of the online audience of WHSs when they have the opportunity to interact and post in a virtual space provided by WHS management.

**Figure 6.11: Use of Official WHS Facebook Pages by Service Users
(Aggregate of selected sites)**



The posts made by service users (including comments made on management posts) account for an average of 31% of the total posts on these forums, less than one third of the total. Of those who do engage in this participatory space, the themes discussed cover a number of areas. The most likely theme to be discussed concerned the significance of the WHS. 34% of the posts by service users on the WHS Facebook pages involved people discussing the history of the site or what the site means to them personally, i.e. whether they grew up in the area, had family there or simply remembered visiting the site. Old photographs were discussed or uploaded as were modern-day features of the WHS. In the Blaenavon Facebook feed, for example, very little of the content is detailed and tends to be light, informal discussions related to the history of the area. Nevertheless, social media is being used a space in which people are prepared to share, create and discuss content related to space in which the WHS is situated.

6.6.2 Community-Led Spaces to Discuss Heritage

Analysing activity on the official WHS Facebook pages alone suggests that online participation and engagement with the WHSs is very small and unremarkable. A widening of the research field, however, revealed that virtual communities concerning WHS areas are growing independently of the WHS management organisations and their constituent tourist attractions. These are not overtly concerned with presenting the OUV of a WHS but there is inevitable overlap and these virtual social spaces have clear relevance both to this thesis and the WHS management organisations.

The growth of these groups has been a phenomenon that has taken place during the course of this research (2011-2014) and is therefore indicative of the rapidly changing and fluid nature of the research area. These websites have been set up not by the managers of the WHSs but by local residents or people with an interest in the area. In the Blaenavon area, for example, there is a Facebook group entitled 'Blaenafon Past & Present', established on 22 January 2012. As of 20 August 2014, the group has over 1,439 members. Another group 'Pontypool Past & Present', which concerns Blaenavon's neighbouring town, is similarly structured and as of 20 August 2014 has 6,087 members. The town of Belper in Derbyshire, which lies within the Derwent Valley Mills WHS, has a similar Facebook page named 'Belper and Proud' which boasted 1,924 'likes' as of October 2013, rising to 3,574 by August 2014. These are dynamic groups populated predominantly by local people and diaspora who wish to retain an interest in the communities. The sites assume a number of roles, which will be outlined in greater detail in the sections below.

6.6.3 Virtual Activities Undertaken

These virtual communities make extensive use of representations of space. A steady flow of images is posted within the groups, often of a high visual quality, illustrating physical landscapes and modern day features of the selected WHSs. The images frequently show the site as it is today, sometimes from unusual angles, prompting curiosity about the area,

imaginative travel and an incentive to seek out the actual space. The images may also occasionally show the less attractive side of the WHS areas, showing blights on the landscape such as ‘fly-tipping’ or boarded-up buildings.

Historic images of buildings, people and places associated with the WHS areas are also commonplace within these communities, thereby providing representations of time. Such images foster liminoid, imaginative travel to the past and encourages the processes of memory and nostalgia. The photographs found within these communities are typically of local interest and include:

- Religious buildings and groups
- Educational buildings and groups
- Sporting institutions and groups
- Cultural events and groups of people
- Public houses and groups of people
- Shops and people

The time period of such photographs is typically mid to late 20th century and often within the living memory of the group members. These social media groups provide a liminoid space in which people viewing the same images can meet virtually and share memories, exchange opinions about a site, theme or shared event, irrespective of their physical location in time and space. The representations of the tangible heritage give rise to the articulation, preservation and discussion of intangible cultural heritage as people share their memories and perspectives on buildings, events and historic residents.

These online practices could represent a desire to remember or appreciate a site within a locality, perhaps due to a personal association. Giddens (1991) argues that ‘place’ has become ‘phantasmagoric’ as social networks, information flows and experiences extend beyond a specific physical space (p.146). Physical locality no longer forms the limitation of people’s experiences. Giddens notes that attempts can be made re-embed the local into

people's lives and cites the generation of community pride as basic attempt to achieve this. Nonetheless, he notes that such activities do little more than 'recapture a glimmer of what used to be' (p.147). These online communities may, to a certain extent, involve people trying to engage in nostalgia associated with a physical space or locality but there is potential for the virtual spaces to re-evaluate the experience and perception of the actual space. Images may also be used to inspire people to visit and imagine the experiences they could enjoy within the site, particularly useful in attempts to attract people to visit a destination. Educational, intellectual, community and civic practices could potentially be undertaken through such virtual spaces.

Samuel (1994) employs Sigmund Freud's concept of 'scopophilia' i.e. 'pleasure in looking' to understand people's fascination with old photographs and the imagery of the past. He argues that the act of 'consuming' old photographs and gazing into the 'past' releases certain urges within the individual related to narcissism, identification and fantasy. He notes that it represents an impossible desire to return to the past, or at least an idealised representation of it (p.373). The digital gives people greater access to imagery. They no longer have to go to exhibitions, read old books or seek out actual postcard collections to satisfy this desire. The web is replete with imagery of all sorts and, in terms of historic imagery, it has never been easier to build up a photographic representation of a space across time. Accessing old photographs through websites and social media allows people to form 'dreamscapes' within their own imagination (pp.350-361). Indeed, Styhre (2009) argues that we live in a 'scoptic regime' whereby the visual assumes great importance, especially in the attention-seeking virtual media (p.56).

The activity on the social media sites, however, is on-going. There does not seem to be a natural end-point, there is no anticipated end product such as book or documentary that people are working towards. Each photograph or post is viewed on its own merits for a couple of days or so before slipping down the newsfeed and into obscurity, as new, often

unrelated posts, are then consumed by the audience. Essentially there is a cyclical process in which content is published, consumed, superseded by new content and then archived.

The availability of these images creates demand for more representations of the past, a demand that is met by members of online communities or the heritage industry. It takes place within a moral economy in which images are exchanged for altruistic reasons. It is not just historical images, however, that are in demand. Photographs of heritage features in modern times are also well-received within these virtual communities, being 'liked', 'shared' or commented upon.

Content is typically published by active members of the virtual community. It is then consumed by the audience of that group who may passively view an item, endorse it through a 'like' or engage with the content through making comments. Depending on the level of exposure the content receives and how much interest and discussion is generated, the post may remain under the scrutiny of the online community for a few days before interest is lost or discussion reaches saturation or goes 'off-topic'. It is then largely forgotten about, descending into archived pages where occasionally it could be revived at a later date. New posts will then be made, which too will undergo the same process. The desire to consume more content, lends an almost addictive element to these communities, as people seek more of the pleasure they have experienced in that space, namely the scopophilia and liminoid experiences. For the groups and communities to be sustainable, new content needs to be provided. There is potential for the heritage industry with its quality content to enter into these pre-existing spaces and engage with these niche audiences.

Activities also include the sharing of content from other sources. These social media groups form a shared space where content from other attractions and organisations on Facebook can easily be disseminated to the group members. Links are also provided to sources of relevant information on the web. Discussions also take place in regard to heritage related projects that may be taking place in the area, for example the production of books, DVDs etc. On the

'Belper and Proud' site there was evidence of the promotion of local businesses, including competitions with financial incentives for people to support local traders. Discussions take place concerning the latest news and media coverage about the area. Local and regional events (heritage related and otherwise) are also promoted and discussed. Specific attempts to build up an online community are made by the members and administrators who call on people to share and like the group or page, with certain pages such as 'Belper and Proud' naming a 'Fan of the Month' to incentivise participation.

Political exchanges about local services and heritage management also take place to a certain extent and can include criticism of how a site is managed; exposure of elements of a site which do not reflect well on the WHS management; petitions relating to local services; sharing of site management information and relevant published reports; and feedback on how a site should be managed. Yet, there is currently relatively little, if any, overt WHS management presence within these spaces. Chapter seven explores in greater detail the implications of such activities on the management of WHSs.

Although debate and contentious discussion occasionally takes place, there is little evidence of any heated or abusive exchanges taking place on any of these sites. Indeed, political discussions tend to be avoided or censored by the site's administration for the sake of harmony, prompting splinter groups in some cases. For instance, 'Blaenavon and Beyond', a similar group for sharing photographs and memories related to the Blaenavon area was established in May 2013 and states 'There's not (sic) many rules ... Its (sic) where you won't be banned for speaking the truth!' (Blaenavon & Beyond Facebook Group, accessed 7 May 2014).

The contributors tend to be people with diasporic, familial or personal links to an area. If they are prospective tourists, they tend to be people who have a pre-existing link to the area and want to visit for a personal reason rather than simply wanting a day out. To this end, other activities within these communities include the sharing of information about their

family in the hope of making links with relatives or people who know the family; making enquiries about how to find information that will help them in their family history quest, for example enquiries about the accessibility of churchyards, and some, albeit very few, instances of potential visitors asking residents questions about the area such as questions about the best places to eat in the area. Therefore, there exists a sense of trust, respect and interest between the members of the online community.

Theoretically, a prospective tourist could find out more about a destination by entering into communication with local resident through relevant social media pages. The online ethnography of these pages suggest that there is very little evidence of this taking place but certainly where people have pre-existing links to an area, perhaps a genealogical connection, some interaction does occur. Such engagement could also form part of a post-visit behaviour, where a visitor, perhaps having enjoyed a visit to an area, may wish to communicate this back to the host community or to cultivate relationships that had developed during the visit. A virtual space therefore exists where visitors and residents can potentially communicate to discuss and share information relating to an actual space.

6.6.4 The Culture of the Virtual Communities

Imai (2013) conceptualises cities as the ‘built expression of our cultural values’. The construction of buildings and streets dictate the form of the space but it is the presence of people, socio-economic interaction and daily activities which gives the space its meaning (p.58). Borsay (1989), in his study of the development of English provincial towns in the seventeenth and eighteenth centuries, remarks on how ‘arenas of display’ emerged as public spaces were created to fulfil socio-cultural purposes. Public assembly rooms and walks were established where people could socialise, gossip, enjoy recreational pursuits and exude personal display (p.150). The assemblies were of differing quality and patronised by different social groupings (pp.150-159). The virtual assembly of people within online

communities allows parallels to be drawn with the purpose and function of the traditional arenas of display exhibited in times past.

The distinguishing feature of the traditional assembly rooms was, of course, the emphasis placed on the physicality of the venue. The proprietors of the prestigious assembly rooms would pride themselves on elegant and fashionable furniture and architecture whereas walks and gardens would be adorned with pleasant trees, plants and well-maintained gravelled paths, along with recreational facilities (Borsay 1989, pp.159-163). There was social prestige attached to these spaces, directly associated with the sense of place and corporeality of the experience. The socio-cultural experiences took place within these refined spaces and was, in part, shaped and inspired by the space which contained them. Digital spaces provide opportunities for social, economic, political and cultural engagement but they are notable for their lack of physical space. They cannot boast the architecture or polite elements of the Georgian assembly rooms and instead have to make do with the pixels on a computer visual display unit. Nonetheless, they are spaces of cultural expression and have purpose in people's everyday lives. People give space its meaning. The shared cultural heritage of the group members provides the unifying factor in these virtual spaces.

To an extent, the desire to share and discuss heritage and community values, coupled with the increasing pervasiveness of social networking websites, explains why individuals have established such groups and why large numbers of people have joined. Within the spaces, a virtual culture has also emerged, where sharing, reciprocity and the capturing of people's attention forms a social currency. Styhre (2009) argues that within virtual online spaces, an 'attention economy' is formed and this has implications for individuals and businesses trying to retain the attention of their audiences (p.54). Indeed, such behaviours exist in other forms of social media interaction. Styhre (2009) observes the prevalence of news websites providing space for comments on their articles. He argues that this is not done in order to achieve clarity and objectivity on the news stories but rather to get the attention of an

audience and to seek out subjectivity and individual ‘truths’ (p.55). The same applies to the heritage discussions, whilst the historical accuracy of the content may vary, it is the discussion and engagement with heritage and the subjective opinions that keep the community flowing rather than an attempt to aim for objective truths in the same way that an academic would aspire to.

Munar and Jacobsen (2014) examined the motivations of tourists in making use of social media during their holidays. They conclude that people submit user-generated content in the hope of attaining social capital or prestige within a virtual community (pp.46-48). Furthermore, they note that people may simply enjoy the interaction or submit posts in anticipation of co-operation or reciprocity from the community (Munar and Jacobsen 2014, p.48). Altruistic motives were also discerned, especially where recommendations and reviews were provided, thereby helping others make a decision about visiting a destination (pp.52-53).

A moral economy exists which is not dependent on monetary exchange but rather on altruism, collaboration, reciprocity and sharing (Jenkins et al 2013, pp.62-64). The digital culture allows for connectivity between global disparate peoples and participation in real-time. Furthermore, it provides an infrastructure for the culture of the moral economy to flow (Germann-Molz 2013, p.215). Certainly, in the ethnographic study of activity within the online communities associated with WHSs, it can be seen that the activity carried out voluntarily by individuals at a grassroots level is conducted with no discernible intention to generate economic or personal gain, except for perhaps an increased positive reputation within the virtual community. It is primarily the transmission and discussion of interesting and relevant content between members which keeps such communities flowing.

Utilising the liminoid space of the web allows people to enter a decision-making space. In a tourism or consumer context, where monetary transactions or corporeal travel is involved, there can potentially be economic or physical risks to a person’s wellbeing if the tourist

experiences fall below expectations. Therefore, the moral economy of the web, which uses trust as its currency, is an effective solution to assessing these risks. Accessing the website of a reputable brand conveys a virtual sense of trust or security that the product or service being provided will be of an acceptable quality (Shields 2003, pp.199-200). Furthermore, the advent of social media and user generated reviews presents the potential consumer with a supply of information related to a product or service. Within a virtual social network, especially Facebook where the ties of actual friendship, kinship and personal acquaintance are strong, trust assumes more value as a currency. The recommendations of friends or relatives are likely to convey more trust than the campaign of a marketing company (Zeng and Gerritsen 2014, p.31). Reviews on websites such as Trip Advisor may also contain anecdotes from other tourists about negative experiences and readers may consider the consequences of travelling to that destination. The risk can therefore be virtually assessed and a decision made on whether to visit or not. This decision is made in a space in which various representations of space are transmitted, including high quality, professionally produced images that deliberately attempt to portray a positive or idealised version of a destination. Whilst these images may activate liminoid spaces of imagination and still inspire corporeal travel, the web allows for propaganda and the authorised publicity of brands to be opened to public scrutiny.

The pages run by the WHS management groups receive lower levels of active engagement. These pages, however, are set up with the intention of increasing visitor numbers to the sites by promoting events, special offers and providing service updates. Whilst this may be information relevant to visitors and people potentially interested in attending events, it does not develop a flow of reciprocity where interesting content is communicated between the site management and an online community. It pushes content at people with the explicit or implicit intention that the receiver will perform a particular action i.e. attend an event and spend money. To enjoy greater success with this, the WHS management teams utilising

social media should consider assuming a more active role in engaging with their online audiences and tailoring content to suit their needs. If this market is cultivated, social capital will be accumulated, a brand will be strengthened and the marketing messages and promotional offers may be better received. The implications of this are explored in chapter seven.

6.7 THE USE OF DIGITAL TECHNOLOGIES DURING THE CORPOREAL VISIT

Section 6.5 examined the qualitative expectations that people have of digital cultural heritage tourism, whether experienced through a website or as part of a corporeal visit to a heritage destination. It is the current usage behaviour of the latter form of digital heritage tourism that our attention now turns. As noted in chapter five, heritage sites are increasingly investing money (or at least obtaining external funding) to develop on-site digital interpretation that can be experienced during a visit. This section explores people's current use (or non-use) of digital technologies as part of the actual visitor experience and considers the relevance of the theory of liminality in explaining such behaviour.

The online questionnaire asked the digitally included audience if they had done any of the following on-site digital activities.

Table 6.9: Digital Activities Undertaken During a Visit to a Heritage Site (Also Showing Differences in Male/Female Behaviour)

Activity	Number of Men (42)	Number of Women (63)	Total (105)
Scanned QR (Quick Response) Codes	12 (28.6% of male participants)	8 (12.7% of female participants)	20 (19%)
Accessed a Tourism or Heritage 'App'	6 (14.3%)	9 (14.3%)	15 (14.3%)
Done an Electronic Walking Trail (E-Trail)	8 (19%)	5 (7.9%)	13 (12.4%)
Accessed Augmented Reality	4 (9.5%)	1 (1.6%)	5 (4.8%)
Used On-site Digital Displays or Kiosks	16 (38.1%)	23 (36.5%)	39 (37.1%)
None of these	16 (+1 'no answer') (40.5%)	31 (+3 'no answer') (54%)	47 (+4 'no answer')

A significant proportion of the research sample (48.6%) claimed not to have accessed any form of on-site digital heritage interpretation. Of those who did, the largest number claimed to have used kiosks and interpretation terminals installed at the visitor destinations (37.1% of all participants). 19% claimed to have scanned Quick Response (QR) codes whereas 14.3% had downloaded or used an application relevant to tourism or heritage. 12.4% had experienced an e-trail whereas only 4.8% had accessed augmented reality.

Men appeared to be more likely than women to use these digital forms of interpretation. Over half of the female participants claimed never to have used any digital technology as part of a visit to a heritage tourist attraction. Of those who did, most had used the digital exhibitions installed at the attraction, arguably the most accessible form of interpretive digital technology when on-site. Only one woman out of 63 female participants had accessed augmented reality, with only five following an electronic trail and less than ten accessing heritage apps or QR codes. Males, however, even with a smaller sample of respondents, had higher actual and percentage figures of those actively engaging with the digital heritage

tourism technologies than their female counterparts. More men than women, in real terms, had accessed augmented reality, QR codes and e-trails.

Table 6.10: Digital Activities Undertaken During a Visit to a Heritage Site (By Age Group)

Activity	16-25 yrs (5)	26-35 yrs (15)	36-45 yrs (20)	46-55 yrs (29)	56-65yrs (25)	66-75 yrs (9)	76 yr & over (2)
Scanned QR (Quick Response) Codes	2 (40% of age group)	5 (33.3%)	3 (15%)	7 (24.1%)	3 (12%)	0	0
Accessed a Tourism or Heritage 'App'	0	4 (26.7%)	4 (20%)	3 (10.3%)	4 (16%)	0	0
Done an Electronic Walking Trail (E-Trail)	1 (20%)	2 (13.3%)	5 (25%)	4 (13.8%)	1 (4%)	0	0
Accessed Augmented Reality	0	2 (13.3%)	1 (5%)	2 (6.9%)	0	0	0
Used On-site Digital Displays or Kiosks	3 (60%)	6 (40%)	8 (40%)	11 (37.9%)	6 (24%)	4 (44.4%)	1 (50%)
None of these/ no answer	1 (20%)	3 (20%)	8 (40%)	17 (58.6%)	13 (52%)	5 (55.6%)	1 (50%)

When examining usage according to age, it appears that approximately 80% of the 16-35 year olds interviewed within the online sample have used digital interpretation in some form during a visit to a heritage site, along with some 61.2% of the participants within the 36 to 55 age category. Just under half (47.2%) of the participants aged over 56 years had used on-site digital interpretation. Of those aged 66 years and over, the only method of accessing digital interpretative content at the site was through an interactive digital display or kiosk. Indeed, the use of the mobile interpretation, including smartphone apps, augmented reality, and Quick Response codes was low among all of the age groups whereas use of smartphones stood at 60.5% across the age groups. It would appear therefore that it is not simply a lack of access to the technology that is resulting in the low usage of mobile interpretation. This may indicate a lack of awareness of digital opportunities within heritage sites, apathy towards the technologies in the heritage-tourism context or that the use of digital technologies in that way is not yet common in tourism behaviour.

6.7.1 Reservations Concerning Digital Heritage Tourism

Although there was some optimism and positivity about existing digital heritage practice (as outlined in section 6.5), it was clear that there were negative attitudes towards digital heritage interpretation during on-site visits. One respondent found that, in their experience, the end product in digital heritage interpretation was of a poor presentational quality and was ‘generally not very sophisticated’, with ‘not a lot of money spent on development’ (Online Survey Respondent, No. 31). Similarly, another argued that the quality of digital interpretation varied considerably from site to site and was ‘often done very poorly’ (Online Survey Respondent, No. 13). Whilst they did not elaborate on this, a respondent noted that whilst using scanning QR codes, they had found the content inaccessible because the mobile Internet coverage or Wi-Fi was unreliable (Online Survey Respondent, No. 66). This concern was echoed by another, who suggested that greater Wi-Fi coverage was needed around heritage sites to open-up the possibility of greater digital interpretation on-site (Online Survey Respondents, No. 122 and No. 35). The user-friendliness and reliability of the technology are certainly concerns. In order for people to enjoy and engage with the technology it must be accessible and should be fully functional. The failure of the technology to work properly damages the visitor experience.

One of the online participants observed that whilst the content was useful and interesting, using a digital device can actually isolate a visitor from the rest of the group, especially if visiting with friends or family, thereby reducing interactivity with other people and, imaginatively perhaps, taking the visitor out of the contemporary space and time of the actual site (Online Survey Respondent, No. 86). When asked whether the inclusion of digital heritage displays or features at a destination would make one more likely to visit, some 28.6% said ‘yes’, whereas 71.4% said no, indicating that digital technology has yet to be used to create compelling visitor experiences that attract large numbers of users to a destination.

6.7.2 Conflicting Liminalities

The reasons for this conservative and somewhat lukewarm uptake of digital heritage interpretation were garnered through qualitative responses on the online questionnaire and qualitative interviews with service users. The responses emphasised the fact that the site itself, with its unique temporal-spatial status, is the primary reason why people visit. It was noted by one participant that the digital technology should not intrude on the site, indicating that the digital could detract from the sense of being in a ‘real’ heritage site and that people go to such sites to experience an actual site rather than a digitally recreated environment.

The whole point of visiting one of these attractions is to take note of your surroundings, and not have your head in a phone/tablet/laptop (Online Survey Respondent, No. 41, male, aged 26-35 years).

Another participant stated ‘if you visit a place the sense of place and actual smell and feel of the place are [the] USP [Unique Selling Points]’ (Online Survey Respondent, No. 129, female, aged 56-65 years). The inclusion of digital technology may be regarded as a bonus but certainly not a vital part of understanding and appreciating the site. Some of the comments generated through the survey are featured below:

I would visit a heritage site for its important features, the digital displays would add to the experience if they were there but aren’t essential (Online Survey Respondent, No. 102, male, aged 16-25 years).

If a site is important or interesting enough in its own right then there may be no need to enhance it with digital technology (Online Survey Respondent, No. 35, female, aged 46-55 years).

If I wanted to visit I would go there regardless of digital heritage displays (Online Survey Respondent, No. 48, female, aged 66-75 years).

I have visited places without digital displays that have still been extremely interesting because of other information, displays and experiences on offer (Online Survey Respondent, No. 24, female, aged 56-65 years).

A number of the participants, albeit a minority, were more supportive of the use of digital technologies and the possibilities they offered. The potential of enhancing and adding depth

to a visit was considered, provided that the content and the technology was reliable and appropriate. For instance, digital technology can provide in-depth information about certain aspects of the site, allowing for greater understanding, deeper interpretations and the expression of different meanings and values associated with a site. It was observed by some participants, however, that such content could be made available through a website, where the user could access it at their leisure in the comfort of their own home, without distraction or having to remove themselves from 'the moment' when corporeally in a heritage site (Online Survey Respondent, No. 104).

In some situations, there are perhaps two liminoid experiences taking place or even competing, namely the liminoid experience of being in a site that is betwixt and between past and present, in which the physical, tangible space of the heritage site inspires memory, imagination and reflection; versus the liminoid space of the digital in which an interpretation or experience is being presented to the user through a virtual space to engage their interest. This issue can be conceived as being a situation of 'competing' or 'conflicting liminalities'. Of course, in the space of the web, when accessed remotely, it is possible to enjoy this liminoid experience without any detriment because actuality and the physical presence of the site are not present.

The above, however, only applies where a heritage site provides a liminoid experience in itself. In respect of the heritage-tourism, the liminoid experiences may be generally confined to the museums and visitor attractions within the WHS rather than to all parts of the inscribed area, unless people are visiting features for a personal or spiritual reason. Indeed, the selected WHSs are more than just a collection of museums and tourist attractions. The selected case studies encompass wide, disparate and diverse landscapes, replete with numerous features of OUV, some more prominent than others. For instance, public buildings, private housing, churches and chapels may be deemed as components of OUV. These often constitute the built fabric of towns such as Blaenavon and, to many people, they form part of everyday life

as people's homes, public buildings and venues for local services. Meanings are therefore personal and immediate, associated with people's modern-day, daily experiences. The historical nature of the site is secondary (perhaps even unknown to some) and, even to tourists visiting the area, the significance of the site may not be immediately obvious.



Plate 6.1: A view of Blaenavon town. The eighteenth century ironworks provided the impetus to the development of a community infrastructure, which included housing for workers and managers, religious buildings, schools and commercial buildings. Many of these features still exist, they form components of the WHS, and are still in private or public use today.

Arvanitis notes that within living communities, archaeological or historical features are often viewed as part of the 'scenery of everyday life' rather than being viewed for their historical merit (2005, p.174). This may be particularly true among local residents who live within these areas and are accustomed to seeing buildings or features each day without considering or reflecting on their past (2005, p.174). The meanings and experiences relating to heritage sites may be subjective and can change over time. Indeed, industrial sites that are now tourist attractions, such as Big Pit: National Coal Museum in Blaenavon, are historic sites that once would have been experienced as a mundane part of everyday life, especially by the workers who toiled within them. Today, however, the meaning of this space has been re-evaluated as these industrial sites are recognised internationally for their historical significance and have

reinvented themselves as tourist attractions. In the case of Big Pit, the former working coalmine is now a tourist destination that provides experiences that are outside the ordinary daily activities of its visitors. Through physically going underground, people undergo a liminoid experience, imagining what life would have been like for a coalminer in a bygone age. A tourist may be more susceptible to this, as they are seeking the liminoid experiences of escaping their everyday lives as they attempt to temporarily immerse themselves in an historic or unusual destination or environment.



Plate 6.2. The Big Pit: National Coal Museum is located within the boundaries of the Blaenavon WHS and is a tangible component of the site's OUV. It is the most popular visitor attraction within the site, in terms of visitor numbers, and is well-known for offering underground tours with former miners.

The cultural heritage tourism industry tries to generate liminoid experiences through interpretation and presentation. Whereas visiting an historical interpretation or recreation within an eighteenth century cottage may inspire a liminoid experience, the act of walking through a street of historic terraces that are still lived in today may not inspire the same feelings. Therefore, the physical presence of being in a heritage site itself does not necessarily have a liminoid quality unless there is an emotive or intellectual stimulus.

Historical buildings and features within a site may also form symbols or physical expressions of the intangible cultural heritage of a WHS. For instance, the Blaenavon Workmen's Hall, built through the subscription of industrial workers in 1894, represents the self-help culture

of the industrial Welsh working class during the late nineteenth century. Similarly, the plethora of public houses within the town also, in some cases, provide evidence of this culture, as they once served as venues for clubs, friendly societies, Eisteddfodau, and trade unions. The buildings in themselves do not necessarily reveal this history and significance yet people may show an interest or curiosity in these buildings, especially if they are visitors who may be unfamiliar with the area. Julia, a tourist on holiday in Blaenavon, noted how features of the Blaenavon area had captured her attention and wanted to learn more about their past.

... things like your town hall over there, the Workmen's [Hall]... it was only when I was walking past the other night and it was all lit up [that] I actually stood and stared at the gables on it and realised how ornate they were and that's the first time... it would be nice to go away and look up the history of that I suppose because that's a place I've never been in (Julia, 34:20).



Plate 6.3. Blaenavon Workmen's Hall was built through subscriptions by local miners and steelworkers in 1894 and continues to be used as a theatre, cinema and centre of local culture.

Therefore, the unavailability of full physical and intellectual access to a component of the heritage site, may prevent a liminoid experience being undertaken. Digital interpretations, articulating the intangible cultural heritage of these components of the WHS in an innovative way, may provide an appropriate method to ensure that users acquire an understanding and

experience of the heritage feature. As the liminoid experience may initially be absent, the notion of conflicting liminalities would not apply. A virtual space can be created that fosters a reappraisal and new perspectives on a physical component of the WHS.

The digital has most potential in the spaces where the presence or liminoid nature of the actual is diminished or reduced in some way. For example, where sites are in ruin or the material structure of a building or feature has been damaged or destroyed in some way, virtual spaces can be created to fill these gaps, allowing for liminoid experiences that enhance rather than detract from the visitor experience. It therefore needs to be a complementary experience and not one that intends to replace the actual. The perceived deficiencies of a material space to the visitor experience can create a need for the liminoid nature of digital technology. Maureen, in her qualitative interview, commented about her visit to a Roman settlement in Yorkshire:

...all it was, was [sic] bumps in the ground. I don't know what it was called, I can't remember. I didn't think that was very interesting but evidently it had been a Roman settlement at some time but... it was just like a field with curves in it, it wasn't very interesting... It wasn't explained at all (Maureen, 21:45).

Although the online survey data indicates that augmented reality is not being widely used among the online sample, the principle of the technology and its temporal-spatial nature, is one that appeared to resonate with a broad spectrum of the audience, including those who were unfamiliar and lacked confidence with digital technologies. Although Maureen was, by her own confession, digitally excluded, when the concept of augmented reality was explained to her, she appeared to be quite enthusiastic about the idea and could see how it would improve the visitor experience.

That [augmented reality] would have been a good idea. That would actually have been a good idea because you couldn't actually visualise anything, there wasn't enough there to visualise (Maureen, 22:51).

The concept intrigued and excited other participants too. William mentioned that he liked visiting medieval sites such as castle ruins but commented ‘I suppose it can be hard to imagine what it was like when it was operating, so to speak, because you are just left with ruins’; he expressed a desire to ‘get a sense of the scale of what these areas were’ (William, 35:38). Although only vaguely aware of augmented reality, once it was explained to him, William expressed enthusiasm at the potential for the technology, stating ‘that would work, I’d really like to see that’ (William, 36:45). He felt that it could be used to enhance the visit at Blaenavon stating ‘that augmented reality (sic), I think that would be brilliant at the ironworks... so you can make it sort of look like the furnaces are working. I’d like to see that’ (William, 39:30).

Julia, despite not having a smartphone, stated that she was aware of augmented reality and would like to try it out during a visit.

I’ve seen that shown either on the Internet or on the TV and I’m so jealous that I haven’t got it. That’s the one thing [on a smartphone] I think I would use because I think that would bring places alive a lot more if you could do that... (Julia, 30:37)

She added that the concept appeals to her because she likes to ‘see the progression of how things have changed over time’ and that if the family owned an iPad or similar device it would be something that they would enjoy to do together (Julia, 31:34).

One of the respondents to the online survey called for a three-dimensional recreation of a site to ‘recreate’ buildings ‘as they would have been’ and to illustrate historical change (Online Survey Respondent, No. 66). Indeed, as another respondent put it ‘I would expect digital technology to enhance the visit rather than replicate basic material’ (Online Survey Respondent, No. 68). The implication being that digital technology should be included where there is a particular need and should present content that is qualitatively different from that which can be shown in material form.

The theme that resonates is that the digital, as a liminoid space, has most relevance in circumstances where the actual is absent, incomplete or intangible. In these instances, the digital can provide an experience in itself. In such cases it does not intend to replace the actual but to complement it and aid understanding. The imposition of digital technologies in circumstances where the actual, material space provides the experience is sometimes an unwanted distraction, causing a conflict of liminalities.

6.8 CONCLUSION

This chapter has attempted, using the qualitative and quantitative responses of the audience of industrial UNESCO WHSs, to identify and theorise the demand, practice and expectations of digital technologies in a cultural heritage tourism context. It primarily examines the digitally included audience but also provides qualitative examples of the wider audience of WHSs. The chapter has explored peoples' behaviour using digital technologies both in the context of an actual visit and the use of ICTs remotely. The findings indicate that users currently have only limited expectations of digital heritage and tourism and are largely satisfied with the existing offer, utilising content in a predominantly passive way. In respect of the corporeal visit, the data suggests that the use of digital interpretation by service users is yet to become a common practice. Dissatisfaction with the current provision, a lack of awareness of the possibilities and digital inclusion are pertinent issues in explaining this but the potential for future development and refinement of these technologically facilitated experiences is recognised by many.

The temporal-spatial and liminoid nature of the heritage site itself appeared to be sufficient for many of the respondents, with there being a belief that digital virtualities may even detract from the appreciation of the actual site. Nevertheless, this chapter has highlighted the numerous contexts through which digital technology can create liminoid experiences and qualitatively different engagements with the past, particularly in contexts where the heritage lacks a tangible element or is absent.

There is scope for participation and interaction remotely through the web and social media. Again, however, most of the respondents were passive in the use of such sites, primarily being the recipients and consumers of text, video and images uploaded by others. Nevertheless, virtual communities are developing online in which people are communicating and sharing content relevant to the heritage of local communities, irrespective of whether they are WHSs or not. A culture of altruism and reciprocity exists within these spaces as people share and create content for no financial or personal gain. Such spaces present challenges and opportunities for the managers of cultural heritage institutions and these will be explored in greater detail in the next chapter.

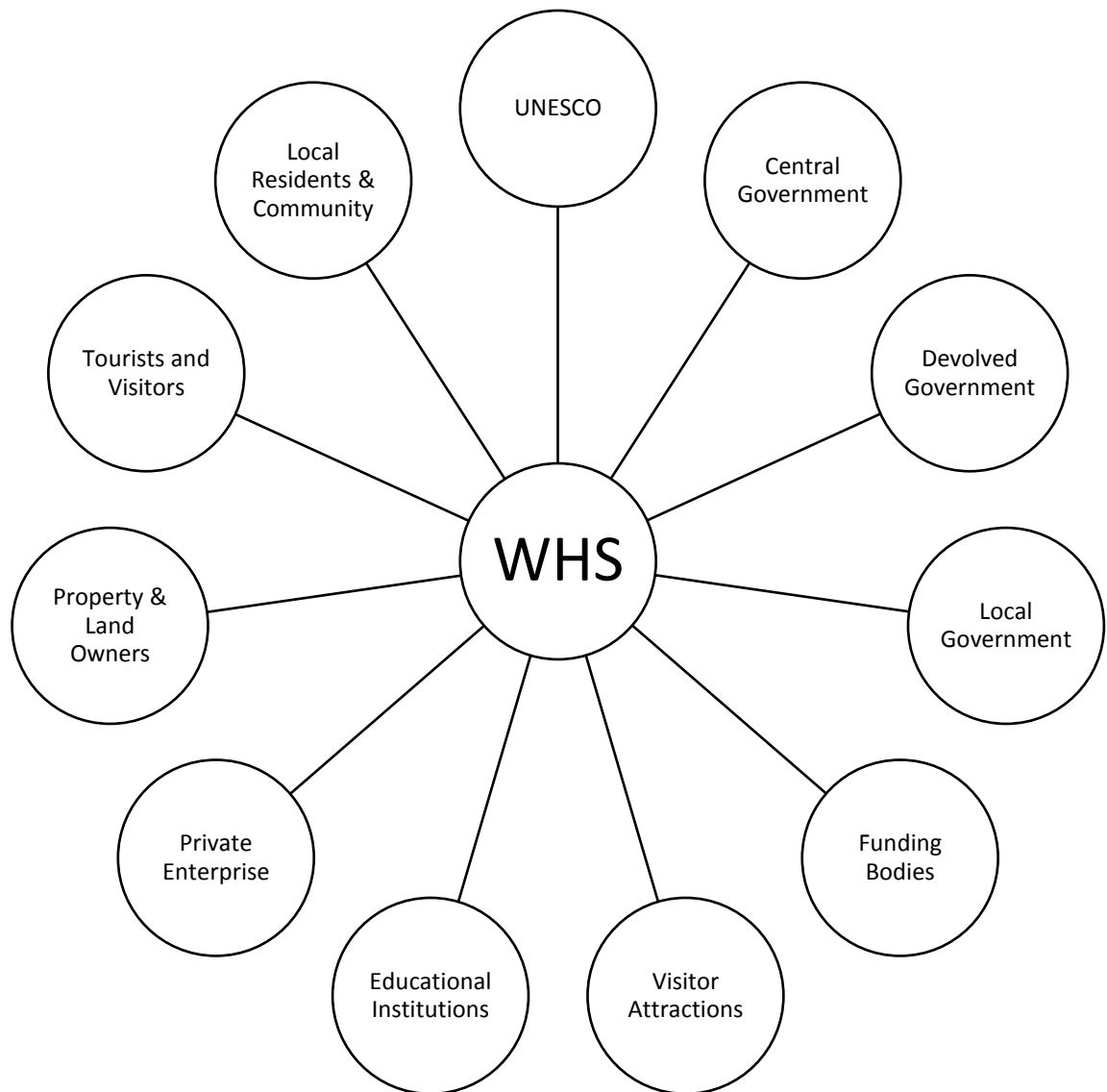
7 DIGITAL VIRTUALITIES AND THE RELATIONSHIP BETWEEN INDUSTRIAL WORLD HERITAGE SITES AND THEIR STAKEHOLDERS

7.1 INTRODUCTION

This chapter evaluates the extent to which digital virtualities have impacted on the promotion, presentation and management of WHSs. It assesses how such changes have affected the relationship between WHS managers and their audiences and how the organisation and management of WHSs have adapted to the increased use of digital technologies. The chapter therefore gives consideration to the participatory nature of the web and whether or not the current practice is changing the ways in which WHSs communicate and engage with their stakeholders in the presentation of their WHS's OUV.

WHSs notionally belong to 'all the peoples of the world', indicating, theoretically at least, that everyone and anyone is a potential stakeholder in a WHS. In practice, however, the management and direction of sites is largely determined by the agendas of national and local government, conservationists, independent consultants and heritage experts (Millar 2006, p.38). Local populations and visitors to the WHS constitute large, heterogeneous and important stakeholder groups and attempts have been made by WHS managers to involve these 'non-professional' stakeholders in the management process. This chapter examines the participatory roles played by tourists in relation to these cultural heritage sites but also looks at the participatory role of local residents who, as members of the host community in which the tourism activity takes place, form an important and interested stakeholder group.

Figure 7.1: WHS Stakeholder Map



7.2 THE DIGITAL AS A LIMINOID SPACE FOR STAKEHOLDER INTERACTION

The web provides a liminoid space in which the various stakeholders and representatives of WHS management can interact. The web is not a homogenous space and is liminoid in the sense that it exists betwixt and between the actual space of the WHS and the temporal-spatial positions of its stakeholders. It exists virtually, in essence but not actuality. As outlined in chapters five and six, the web can be used to provide liminoid experiences through the use of images, video content, apps, interactive games and virtual reconstructions. It can also be

used to promote and provide practical support for corporeal visits, perhaps giving the potential visitor a glimpse of the liminoid experiences than could be enjoyed during an actual visit. The impacts of this could potentially be quite profound for WHS managers as this chapter will explore.

Stakeholders, irrespective of geo-spatial and temporal situation, can enter into a liminoid, virtual space and become active participants within cultural heritage tourism processes, whether as potential visitors, actual visitors or local stakeholders. The web forms an ambiguous space in which users can adopt new statuses and transcend and challenge the traditional authorities and hierarchies. The relational binaries between professional and non-professional and tourism manager and tourist can be challenged and renegotiated, with power shifting from the traditionally dominant party to the previously more passive element (Van Dijk 2005, pp.12-17). Marginalised, excluded or 'liminal' groups and individuals can use the web to find a voice, perhaps permitting greater levels of enfranchisement. The liminoid nature of the web allows for collaboration, the sharing of ideas and information, challenges to existing practices, and allows for creative problem solving. It is an ideal place for consultation and information-sharing to take place between WHSs, local residents, tourists and other interested parties, allowing people to influence socio-cultural and economic changes in actuality.

The temporal-spatial nature of the web means that these 'real' (rather than representative) practices associated with cultural heritage tourism in UNESCO WHSs can be undertaken through the Internet. The participatory culture of the web and its continued growth pose challenges to WHS management partnerships but also present opportunities for managers to use this changing relationship to achieve the WHS's overarching aims and objectives. The extent of these challenges and opportunities is determined by the managerial culture, its commitment to meaningful participation and the level to which digital potentials have been recognised, understood and applied to this organisational culture.

7.2.1 The Web as a Liminoid Space of Decision-Making in Cultural Tourism

The previous chapter highlighted, using data from the quantitative surveys, the ubiquity that digital technology has assumed among digitally included audiences in tourism planning. All the online participants claimed to utilise digital tourism in some form. This is the most elementary support that people require for tourism purposes and is a function that all the selected WHS websites fulfil. People are widely and consistently using the web as an immediate resort to find the information they need in order to make a corporeal visit to a site.

7.2.1.1 The Temporal-Spatial Compression of a Heritage Destination

Websites relating to a WHS or tourist attraction allow users to enter a virtual space associated with the destination in advance of making a corporeal visit. The virtual transcends temporal-spatial constraints, affording greater levels of convenience for service users. Provided that accurate, timely and up-to-date information is available online and that it answers the individual's questions, the web forms a convenient solution to people's tourist information needs, permitting them to obtain the data at whatever time they wish and from any location, provided that an Internet connection is available.

The temporal-spatial compression of the site itself can take place through the web, as a combination of photographs, video content and information form spaces of representation that can inspire the attention of service users, particularly potential tourists who the destination is being marketed towards. Digital technology allows people to see and, to an extent, experience parts of a site before making the actual corporeal visit to the destination. Virtual tours, despite having varying levels of complexity and interactivity, provide a liminoid space in which potential visitors can explore a site imaginatively before visiting. The experience is liminoid in the respect that people can play with the idea of being a visitor in the site, virtually sampling the site and evaluating whether it is interesting or exciting enough to warrant an actual visit. It can therefore be a factor in deciding whether or not to

visit. The use of the web affords greater opportunities in this respect than what can be achieved through traditional brochures or leaflets.

Interviews with service users revealed that people from a variety of backgrounds are inclined to seek out information about a destination before visiting and the so-called ‘virtual tours’, provided through some tourist websites, appear to be popular features. Demonstrations of a virtual tour of the Cornish Mining WHS were made to the participants as part of these interviews. ‘Peter’, in the 66-75 age group, was impressed by the ability to convey the collective stories of the various attractions in the WHS in the space of a ten-minute film. The participant claimed that although he had never accessed a virtual tour prior to a visit, he found that the presentation had a greater impact on him than a traditional brochure or leaflet. Seeing content online would encourage rather than deter him from visiting (Peter, 22:49). Similarly, ‘Maureen’, when shown a virtual tour of the Cornish Mining WHS, explained that she felt that it was a much more effective way of promoting a place than simply using a brochure. She felt that the virtual exploration of a site whetted her appetite and in no way did it make her feel as if she had seen and done it all. (Maureen, 11:37). ‘Julia’ also made use of virtual tours and sees them as playing an important part in the deciding whether or not to visit a site. Such tours would be unlikely to deter the participant from visiting a site corporeally unless the content provided in the virtual replicated services and features in the actual (Julia, 20:44).¹⁹

Although the virtual can provide a space of decision-making, it may not necessarily generate the result that the site management intend. ‘Mary’, in the 36-45 years age group, watched just over half of the Cornish Mining video demonstration before requesting that it be turned off, claiming that she was not interested in it. It was, however, the content of the experience rather than the principle of the tour itself which she had an issue with. In the case of the

¹⁹ ‘Julia’ added that she would like to have some degree of personal navigation with a virtual tour, the ability to look at a particular feature in more detail and to be able to find out more about the facilities that are available in the site today, along with information about the history and significance of the feature.

Cornish Mining WHS, the virtual exploration confirmed that the destination was not for her partly because she was not particularly interested in industrial heritage. In this respect, it can provide a useful mechanism for sites to manage visitor expectations in advance of a visit. In principle, a virtual tour in itself would not deter the participant from making a corporeal visit to a destination.

The participant explained that she found virtual tours a useful way in finding out about an attraction. For instance, if it had been a tour of a stately home the participant may have been more inclined to visit. In such circumstances, viewing a virtual tour would not make the participant feel that she had visited the site because it did not provide the same sensory stimulation as an actual visit. In-fact the participant uses virtual exploration in a way which complements the actual visit. She frequently uses Google Street View to satisfy her curiosity and explore or orientate herself in an area before travelling there (Mary, 18:19). This is indicative of a practice whereby potential visitors to a site are virtually sampling a site before they visit. People are not only using the website to seek out the promise of a liminoid experience during a corporeal visit but, in some instances expect a liminoid experience of some degree before making the decision to visit a destination.

In chapter five it was noted that in the Derwent Valley Mills WHS there was a concern that providing virtual access to the WHS posed a risk to the financial sustainability of the site and by extension, its conservation. Parry (2007) notes that the rise of the web during the 1990s and the digital representation of interactive collections caused serious concern within the museums industry (p.62). In what he describes as a dystopian view, Parry draws attention to the fear that providing access to digital simulacra online would result in fewer corporeal visits to museums, thereby threatening their sustainability as cultural institutions (2007, p.62). Parry acknowledges that this did not happen and that museums still exist and acquire objects (2007, p.63) but the issue of whether the virtual can replace or detract from the actual still resonates within the heritage industry today.

It would be unwise to declare that digital virtual spaces do not pose challenges or threats to the operation of traditional heritage and tourism establishments. Chapter three noted the threats to tourist information provision posed by a combination of public sector spending cuts and increased use of the Internet as a tourism research tool. Similar challenges may be posed to some types of heritage tourism attraction. As outlined above, the liminoid experience of being at a historical site, is part of the reason why people visit. Certainly the experiences of going underground or being in an impressive historic building are difficult replicate digitally, especially through the web, but smaller attractions such as general visitor centres could potentially suffer in a similar way to the tourist information centres.

7.2.1.2 Blaenavon World Heritage Centre: The Challenge of Virtual Spaces

The Blaenavon World Heritage Centre opened in 2008 with a remit to interpret and promote the Blaenavon Industrial Landscape WHS. It is based within two modernised historic school buildings (Grade II and Grade II* listed), built in 1816 and 1860 (Blaenavon WHS Partnership 2012). Although based in an historic building, it arguably lacks the sense of place and liminality that a more a more immersive destination such as Big Pit: National Coal Museum or Blaenavon Ironworks can boast. It instead attempts to focus its interpretation on a general, holistic overview of the entire WHS area and its OUV (Blaenavon WHS Partnership 2012).

As outlined in chapter five, the selected WHSs are all using their websites as a space in which to holistically interpret their OUV. In the case of the Cornish Mining WHS, the management explicitly state that they use their website in lieu of a visitor centre (DB, 04:00). Indeed, the web could actually be a more convenient medium through which interpretation and many functions of the BWHC could be conveyed, with the added attraction that it would be accessible to a much bigger audiences and beyond the restrictions of time and space. This poses a serious challenge to the site management and a serious deterrent to further developing free online digital content. The web can extend the space and time in which

cultural heritage can be enjoyed and presented but potentially at the detriment of the actual heritage site itself.

Table 7.1: The Functions of Blaenavon World Heritage Centre (March 2014)²⁰

Function	Online Possibilities
The presentation of the Outstanding Universal Value of the Blaenavon WHS	Presentation can be carried out online, with layered interpretation tailored to individual needs, in multiple languages, without the confines of a physical space. Software and hardware cause an unsightly embarrassment if they fail on-site (i.e. broken digital kiosks). The repeated use and 'wear and tear' on the hardware can be avoided online, where people will use their own devices. Software can be taken off-line if it needs to be repaired and is unlikely to detract from the visitor experience. It is also easier and considerably less expensive to update and refresh content online.
Tourist information provision	Tourist information data is readily accessible through the website and more specific enquiries can be dealt with by email or through social media. Bookings for accommodation can increasingly be made via the Internet. Out of date information can be quickly corrected or deleted, unlike a brochure or leaflet.
Educational Provision	Education material including teachers' resources, but also content aimed directly at children, can be made available online. Educational games can be undertaken.
Research Facilities	An unmanned research room contains documents and records related to the WHS. Many of these documents and materials are now available in digital format on the Visit Blaenavon website.
Gallery Space for Temporary Exhibitions	Photographs, artwork and other forms of user-generated content relating to the WHS can be displayed online through a website or social media.
Notice Board	Events can be posted and advertised online reaching a far greater audience than the noticeboard.
Shop Space	An online shop selling the WHS merchandise could be provided
Office Space	N/A
Café	N/A
Meeting Rooms	N/A
Council Tax/Corporate Customer Service Desk	Unrelated to heritage or tourism but e-services in this area are also increasingly available online

²⁰ Observations of the researcher, having been based on-site for much of the research period 2011-14.

The actual space of this component of the heritage site has been compromised in consequence of economic necessity, for instance the hiring out of space on the reception desk to deal with corporate enquiries and council tax payments unrelated to the WHS arguably detracts from the message and brand and potentially could result in a confusing visitor experience. Meeting rooms are used to bolster visitor figures and raise revenue but are not dedicated to the OUV that the site is trying to make. The shop and café are undoubtedly aimed at generating profit and income from visitors. These functions are secondary to the cultural heritage value of the attraction but nonetheless are important and, in some cases, vital to mitigate the running costs of the building, especially when the experiential cultural heritage product is given away free of charge.

The principal heritage and tourism functions that the World Heritage Centre currently provides can be extended into virtual spaces, where these functions can be further developed and even improved. Discussion and participation can also take place freely within the virtual spaces of social media, even between strangers, which may be less likely to happen in a physical visitor centre. Such discussion and interaction is native to a social media platform and is therefore suited to meaningful conversations regarding the heritage experience and product. Interpretation aimed at different age groups, knowledge levels and interests can also be produced, thereby greatly enhancing and increasing the choice that the user has. Furthermore, this content can be accessed anytime and anywhere and is thereby free from the confines of time and space that restrict the actual visitor centre. The content can be updated quickly and at no additional cost. It may also be made available through an app on mobile devices such as smartphones or tablets so that people will have access to the holistic interpretative content and visitor service information before, during and after the corporeal visit.

Provided that Internet access is available, a visitor could engage consume the holistic interpretation of the WHS before visiting the immersive and liminoid attractions within the

WHS. The content could be accessed on the journey to WHS, whilst enjoying refreshments in a café, or even when back home. This flexibility in content allows for a change in the visitor's experience of time and space, allowing for more time to be spent engaging in corporeal activities within the site, and also for a user to consume information in their own time, experiencing content that interests them. The Visit Blaenavon website states that the Blaenavon World Heritage Centre is the 'ideal starting point for your visit to the area', imploring the visitor to 'call in to get your visit off to a flying start!' (Visit Blaenavon, undated, b). The time-space compression of the web removes, or at least reduces, the need to physically visit the actual visitor centre to begin a visit to the WHS. The space of the WHS can therefore be virtually 'stretched' to provide holistic interpretation and presentation in a time and place suited to the individual.

The changing temporal-spatial experience therefore presents challenges to the management of the WHS, particularly in respect of visitor centres that provides holistic or general information relating to a site. This is especially pronounced in an economic climate of unprecedented public sector spending cuts, where public sector organisations are looking to reduce costs, including through using the Internet as a more efficient way of conducting business. A multimedia website and social media presence is considerably cheaper to maintain than a staffed building with utilities and maintenance overheads (see chapter three regarding cost cutting through digitising public services). As digital technology and its use in a heritage tourism context becomes more ubiquitous, it is likely that this issue will become more evident. Whilst there will still be visitors, including to the café and meeting rooms, the core essence of the service – namely the presentation of OUV – will remain unprofitable (unless an admission fee is levied) and therefore under pressure. Content, which may be produced via grant money, will theoretically have a much wider potential reach if delivered online and would be cheaper to provide. This would therefore provide better value for money

than relying on the traditional visitor centre alone and can make the visitor centre vulnerable in respect of spending cuts.

There is, however, a moral obligation for organisations involved with cultural heritage to protect these historical assets (UNESCO 1972). By creating new virtual spaces, it is possible that the actual heritage buildings could be threatened and become redundant or obsolete spaces. Whilst economic pressures are of concern, it would be counterproductive to put the actual heritage components at risk. In respect of WHSs, the international scrutiny that management partnerships are under, makes this responsibility even more important. The implication, however, is that such organisations will need to adapt their business models to provide a qualitatively different visitor experience to what can be received exclusively through the web. For instance, there may be an increased focus on the corporeal in order to enhance the visitor's physical experience at the attraction. Interpretation may take a more innovative, immersive, tangible and liminoid form, perhaps using digital technology, whereas the destination may also be used for special events and exhibitions that will attract people for those purposes rather than just the static interpretation.²¹

The implication is that although digital heritage tourism does not replace the actual and the corporeal, it does allow visitors the opportunity to be more selective in what they visit. The physical experience of going underground at Big Pit cannot be replaced virtually through the web but certainly a tourist information centre with static interpretation boards can.

7.2.1.3 The Enfranchisement of the Online Service User

It was clear from the interviews with service users that official websites of destination were not necessarily the exclusive online media accessed before visiting. William, for example, stated he used sites such as Trip Advisor or general regional tourism websites to look up

²¹ Changes to the interpretive offer were made at the Blaenavon World Heritage Centre in the summer of 2014, which included a small recreation of a Victorian Schoolroom with dressing up costumes and chalkboards. This is an example of tangible features being included within the attraction in order to diversify the experience and to distinguish it from what is offered online (Blaenavon WHS Partnership 2014, p.10).

places to visit but did not necessarily access the website of a particular attraction (William, 42:25). Such websites tend to be the platform of a visitor attraction or management organisation and clearly much effort is placed in presenting high quality, professional imagery and selling the destination to potential visitors in order to use the virtual space to foster a positive perception of the actual site. Urry and Larsen (2011) conceive this as the 'tourist gaze', which site managers are keen to control (p.113). However, the managers of cultural tourism websites do not enjoy a monopoly on the web. Whereas in a brochure, leaflet or website the site managers can dictate or control the message, the openness and freedom to publish afforded by the web means that innumerable spaces exist where this authority is reduced.

The web, in many fields, offers the opportunity for comparison, analysis and the consideration of other perspectives. The use of an Internet search engine such as Google will provide a list of many webpages with reference to a destination. As of July 2014 a search for 'Ironbridge' returns approximately 6,590,000 results, 'Blaenavon', generates approximately 462,000 results, 'Cornish Mining' provides about 167,000 results and 'Derwent Valley Mills' returns approximately 49,700 results (www.google.co.uk, accessed 22 Jul 2014). Whilst these results come from references made in various contexts and on many websites, it is clear that the official websites for these destinations only provide a proportion (albeit a high profile one) of the online content relating to the site. Whilst the managers of WHSs may pride themselves on presenting an idealised representation of the site through image galleries containing professionally produced photographs, a simple image search using a search engine or a session using Google Street View could present a potential visitor with images of derelict buildings, neglected components of heritage, landscapes blighted by 'fly-tipping' and evidence of anti-social behaviour. Perhaps the combination of the ideal, the mundane and the ugly presents a more authentic view of a destination but it is clear that control of this

'tourist gaze' is shifting away from the destination management organisations in favour of a more aware and enfranchised service user (Urry and Larsen 2011).

It would be wrong to assume that the only impact in this respect is taking place representatively and visually. The online survey results indicate that some 78% of the online participants had used the web to seek out reviews of attractions or accommodation providers. This was behaviour common to people of all age groups. The younger age groups, namely those aged 45 years or under, were marginally more likely to seek online reviews, with some 78.3% purporting to do so, but those aged 46 or over were almost as likely to carry out the same task with 77.9% of participants having done so. This is indicative of a systematic and increasingly embedded approach to analysing and comparing destinations before visiting.

From the qualitative evidence received, these recommendation websites and reviews appear to be influential factors on peoples' tourist planning processes. The interviews reveal the importance and perceived reliability of these sites to people planning an excursion. In the interview with Polly, in the 16-25 years age group, the participant revealed that her tourism, daytrip and holiday planning is done exclusively online. She would not contact a tourist information centre or use leaflets or brochures before a visit and would not necessarily use the services when enjoying a visit. From her perspective, sites such as Trip Advisor provide quality assurance about accommodation and attractions for the participant. The fact that people are providing recommendations in large numbers suggests accuracy and reliability. It provides a word of mouth recommendation in the digital age (Polly, 06:18). Similarly, in the interview with William, also in the 16-25 age group, the participant expressed a confidence in services such as Trip Advisor. William also argued that he felt online reviews provided a more reliable account of a destination or accommodation provider than tourist board evaluations (William, 08:03).

In terms of writing a review about an attraction or accommodation provider, some 40.7% claimed to have done so, thereby enfranchising themselves in relation to the site management

organisations. As outlined above, the web and particularly social networking websites permit the articulation of opinions and perspectives of people outside officialdom. This participation is an example of users entering a liminoid space in which their status in relation to the managers of a tourist destination is blurred, enfranchising the service user and posing challenges for the service providers. The increasing confidence in these review sites highlights an area in which the authority of traditional quality assurance evaluators is threatened. This ensures that all tourist attractions and accommodation providers are under scrutiny from their audiences, who make reviews about them that are easily viewable by a global audience. Whereas in years past a reputation could be acquired through tourist board grading, accreditation and visitor quality assurance schemes, the collective reviews of many visitors now hold increased weight in determining the quality of a tourism service and influencing the decisions of others.

7.2.2 Interaction between WHSs and Stakeholders through Official WHS Virtual Spaces

The advent of social media and Web 2.0 technologies theoretically suggests that a more participatory and engaging form of heritage can be experienced online. WHSs have embraced this facility and have set up both official Facebook and Twitter accounts. Social networking websites form a space in which direct and public communication can take place between WHS managers and their audiences. However, a content analysis of the various WHS Facebook pages reveals that after an average of about three years in existence, engagement on these pages remains relatively low.

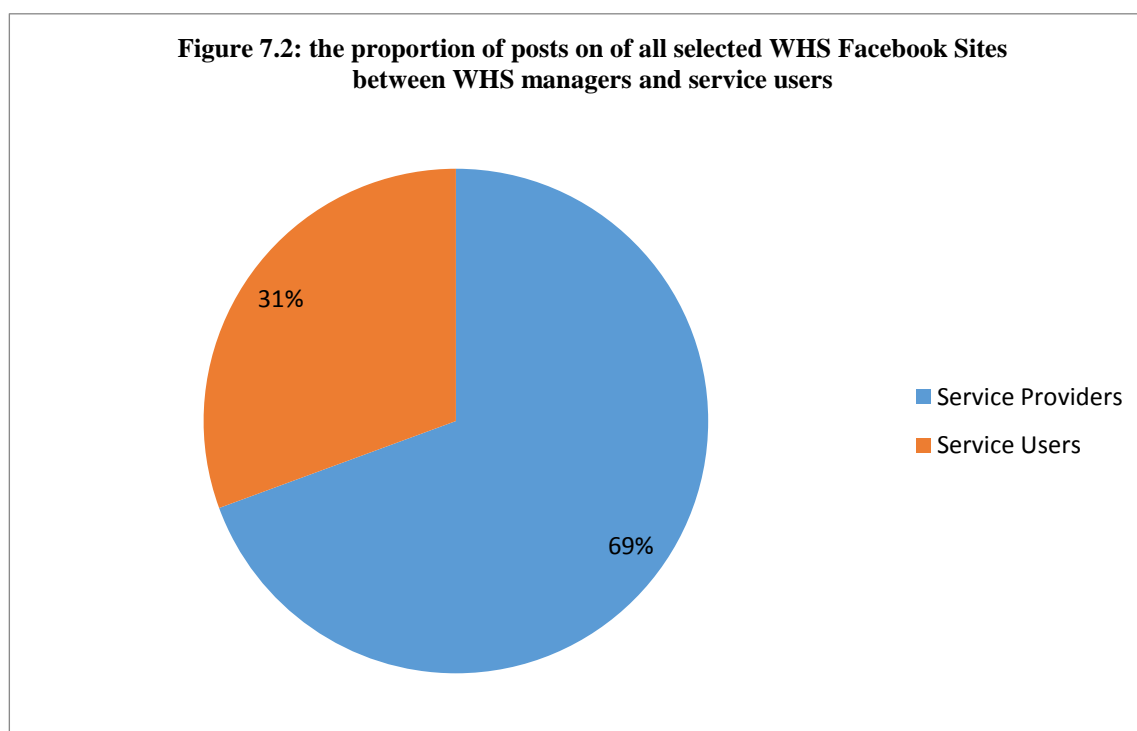
The numbers of people actually following these pages is relatively small, especially when compared with the number of visitors who make corporeal visits to the respective WHSs throughout the year. For instance, on the Visit Blaenavon Facebook page there were 516 likes in the period from its launch in 2011 to July 2014. This represents a very small percentage of the visitors to the WHS in this period – approximately 200,000 visitors per annum (Blaenavon WHS Partnership 2012, p.46) – therefore, at most, approximately 0.09%

of the visitors to the WHS over those three years were actively following the WHS on Facebook. The page, in itself, is likely to have only a negligible impact as a marketing or promotional tool to attract large numbers of new visitors to the WHS.

Table 7.2: Number of followers on the selected WHS ‘Official’ Facebook Pages (July 2014)

Page	Number of Likes (24 Jul 2014)
Visit Blaenavon	516
Derwent Valley Mills	223
Cornish Mining	493
Visit Ironbridge	209
Ironbridge Gorge Museums Trust	6,978

In December 2013, a content analysis of the previous 300 posts on each of the selected WHS Facebook pages (including replies to posts) revealed that there is variation in the levels of interaction taking place between service providers and service users on their Facebook pages, and in the themes of the content being discussed. In the majority of cases, the social media service is being used by the site management organisations to push information relevant to the site but there is relatively little engagement or interaction within these online forums. The following diagrams show the proportionate use of the Facebook pages between the owners (i.e. WHS managers) compared with the online service users.



The diagrams illustrate that, with the exception of the of the Ironbridge Gorge Museums Trust, the online participatory and communicative spaces afforded by the social media sites are being dominated by the site management organisations, with, in most cases, over two thirds of the content being posted by the cultural heritage tourism providers.

Figure 7.3. Proportion of posts made by WHS managers and service users on the Visit Ironbridge Facebook Page

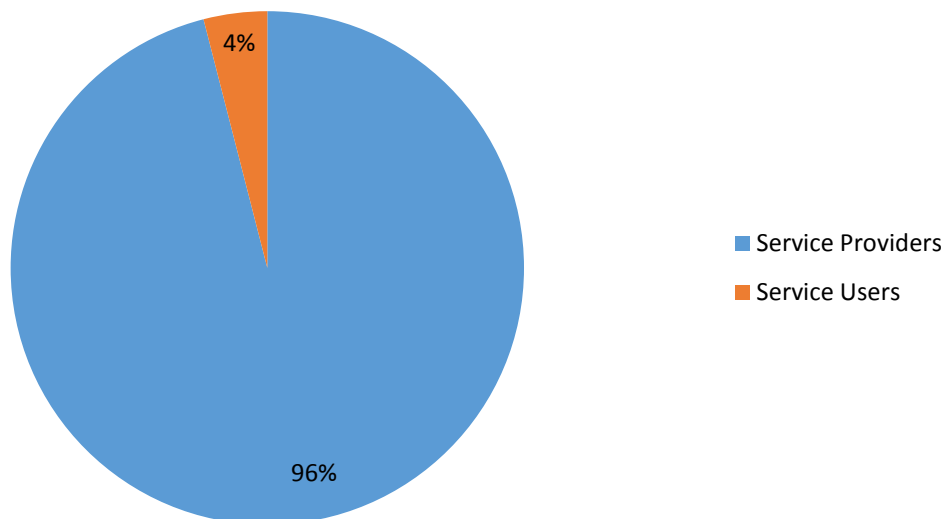


Figure 7.4: Proportion of posts made by WHS managers and service users on the Ironbridge Gorge Museums Trust Facebook Page

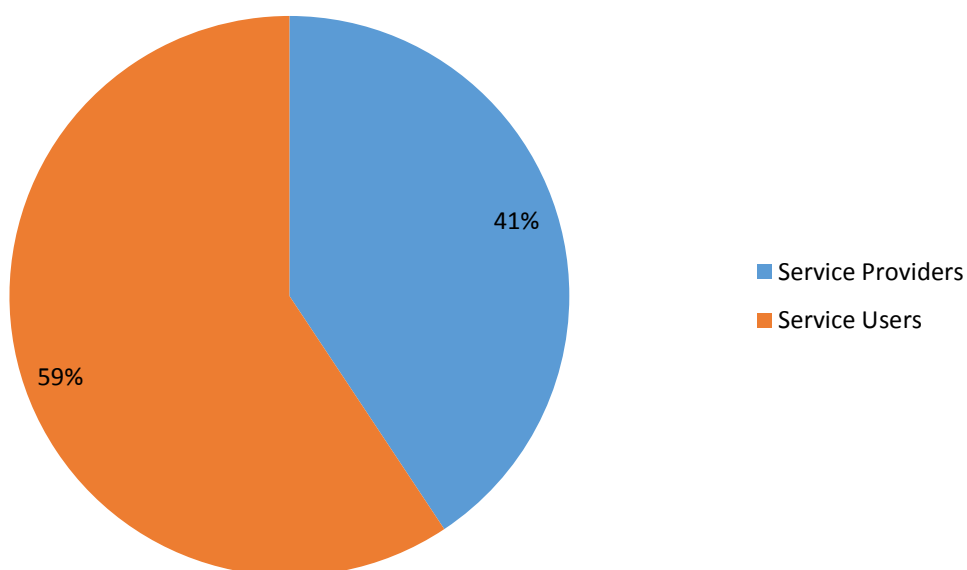


Figure 7.5: Proportion of posts made by WHS managers and service users on the Visit Blaenavon Facebook Page

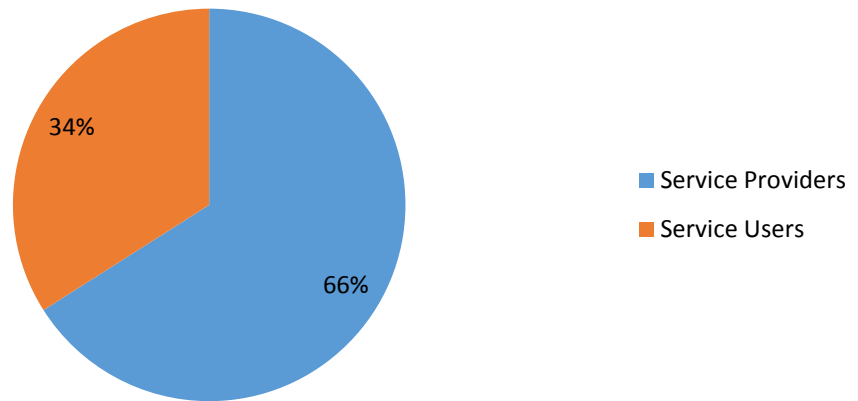


Figure 7.6: Proportion of posts made by WHS managers and service users on the Cornish Mining WHS Facebook Page

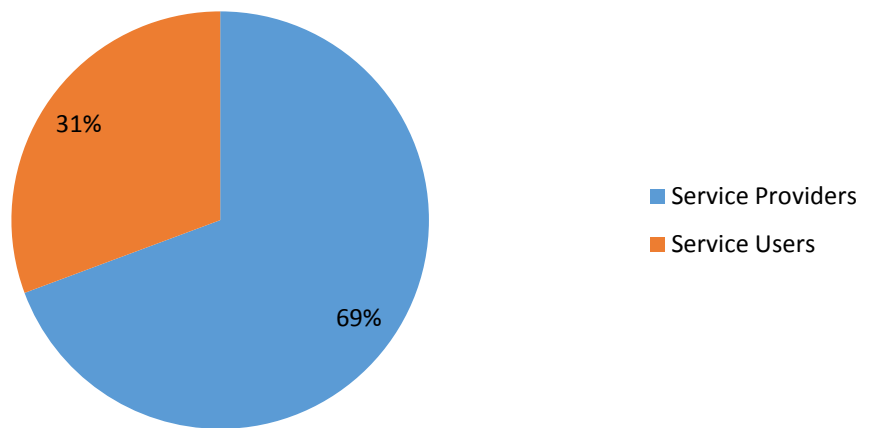
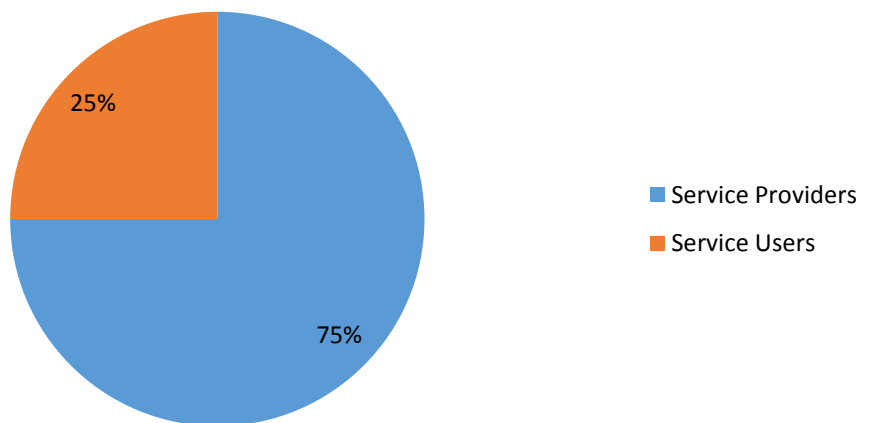


Figure 7.7: Proportion of posts made by WHS managers and service users on the DVMWHS Facebook Page



Of the audience members who do interact and participate on the WHS Facebook pages, it appeared as if they were most interested in content related to the significance of the site, raising awareness of the WHS and making enquiries or comments in relation to it. Events, which dominate the posts of the WHS managers, were only commented on or engaged with by relatively small numbers.

Figure 7.8: Use of Facebook by Service Users across the WHSs

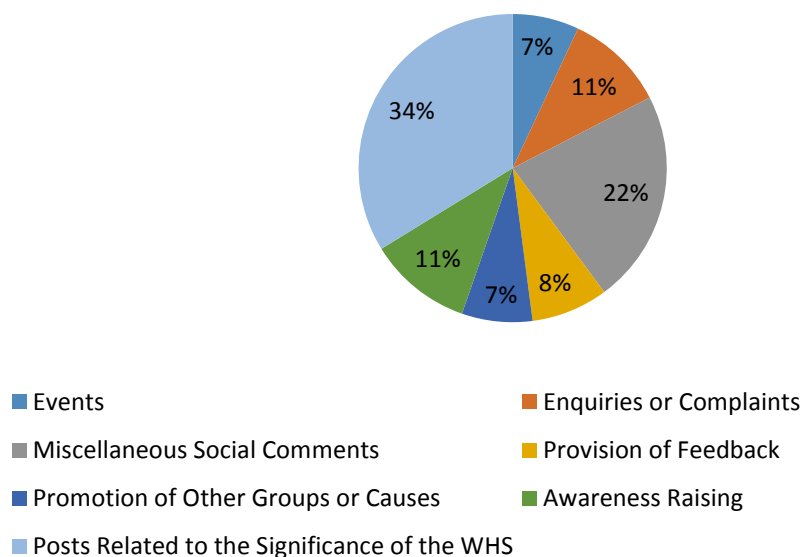
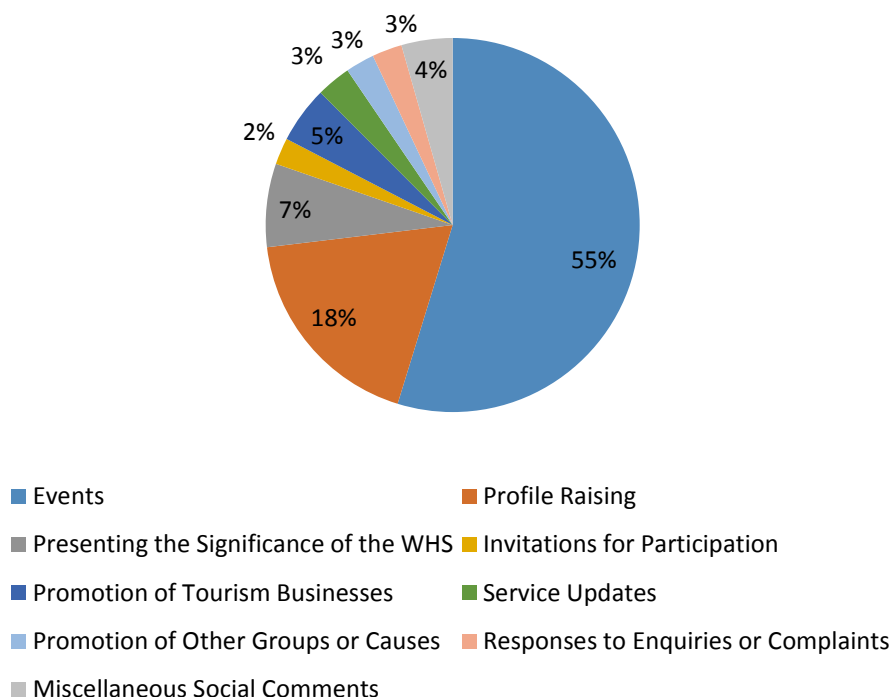


Figure 7.9: Usage of Facebook Across the WHSs by Site Management



7.3 PARTICIPATION IN THE MANAGEMENT OF A WHS

There is slight evidence of WHS-led social media sites being used as a space in which feedback is provided, but this was somewhat small, with an average of just 8% of posts made by service users in this respect. Similarly, an average of 11% of the posts made by the service users involved people making enquiries or complaints about the WHS. Due to the relatively low number of posts made by service users on these sites, these figures in real terms are quite small and it would be difficult to suggest that this open forum of communication alone is having any substantial impact on the way that WHSs are organised and run. Therefore, caution must be exercised before suggesting that the web is becoming a space of participation and engagement for industrial WHSs. Nevertheless, the web does offer the potential for greater interaction and participation.

7.3.1 Liminoid Spaces of Participation

7.3.1.1 Participation by Tourists in the WHS Management Process

Theoretically, WHSs belong to ‘all the peoples of the world’ and therefore a visitor to the WHS, who comes to the site to receive an experience and contributes to the local economy, should have the opportunity to participate in the management process (Millar 2006, p.49). This chapter has highlighted the participatory role that tourists can play in WHS management through the provision of feedback and recommendations relating to tourism service provision but Millar argues that this can go further, declaring that:

Cultural tourists need improved visitor management at World Heritage Sites. Individual cultural heritage organisations within World Heritage Sites need visitors and the money they bring with them. But, the World Heritage conservation movement also needs a myriad of committed stakeholders world-wide who understand and care about the future viability and sustainability of World Heritage. Cultural tourists to World Heritage Sites, as much as local people, have a significant role to play (Millar 2006, p.49).

There is some audience demand for a greater say in how a WHS is run. Yet this appears to be a matter which is of greater concern to local residents than visitors. ‘Julia’, a visitor from

London, when asked whether she felt that she, as a visitor to the WHS, should have a role in contributing to the WHS management, replied:

Not necessarily because we're visitors, we come to visit and to explore the area and to experience it but I wouldn't necessarily say that we should get much of an input, simply because we are not here all the time and I think it's important that people who live here have their say and have their input into things. It would be nice if we got asked our opinion but not to the extent that things get changed vastly just because us, as outsiders, are coming in saying "no, we think it should be done this way and that way". And also, we are not the experts and I think that is very important that the experts know what works, what doesn't, and they have their input (Julia, 35:19).

7.3.1.2 Participation by Local Residents in the WHS Management Process

Millar argues that local people are among the most likely to value and identify with the values of a WHS and local communities are often keen to articulate their heritage to visitors, which they frequently do in the guise of tour guides or first-person interpreters of tangible and intangible heritage (2006, pp.50-51). Millar suggests that the engagement of local people with their heritage creates a positive impression with visitors, indicative of a strong and confident community (Millar 2006, p.51). Hamilton and Alexander (2013) similarly argue that the community, as host members of tourism, should have a role in the tourism planning process and that local stakeholder collaboration is important, noting that the empowerment of the community leads to sustainable tourism (pp.170-171).

It is noted, however, that there are limitations to this as communities are not homogenous groups that have a single purpose. There will be a lack of consensus and variations in hierarchies of influence, knowledge and ability. Hamilton and Alexander note that there is general suspicion of tourism activities as local residents often remain unaware of the potential benefits of the industry and likewise some tourism management organisations are only superficially interested in community consultation (2013, p.171). Certain tourism organisations can provide mechanisms, such as surveys, focus groups, working groups and awareness raising, to interact with the host community in order to 'support the development of affective bonds and interpersonal trust' (Hamilton and Alexander 2013, p.172). These are

relatively formal and organised structures, largely reliant on people being present in a particular space at a particular time.

In their study into the 'Adopt a Station' project, Hamilton and Alexander (2013) note that liminal spaces can become experiential spaces of entertainment, heritage and cultural regeneration that can be enjoyed and participated in by tourists and local stakeholders alike (p.186). Giving responsibility over these liminal spaces to the community, they argue, allows for people to transmit the 'essence' of their communities (p.186). The Hamilton and Alexander study looked at physical spaces, namely railway stations, but the same principles can be discerned in regards to virtual, digital spaces.

In the case of the industrial WHSs, the material space, which the WHS boundary surrounds, is undergoing transformation in terms of its cultural and community identity, economic base and environmental management. Physically, they are sites that are 'betwixt and between' past and present, as through planned conservation and presentation, attempts are being made to regenerate localities based on representations of the past, innovation and creativity. WHSs are contested spaces in which stakeholders have varying and sometimes conflicting interests. This poses a challenge to WHS managers who need to mediate these interests and communicate with all relevant stakeholders. This can be a difficult challenge to overcome and Walker (2014) argues that distrust between the local community and the Blaenavon WHS management has, in certain circumstances, arisen due to poor communication (pp.191-192). Arvanitis (2005) notes the potential for the web and digital technologies to allow the 'voices of the everyday' into museums (p.172). This can be considered further in the context of the selected industrial WHSs, where, due to the reappraisal of the sites, cultural heritage and tourism has become an element of the everyday life for the people who live within the. The following section considers the current practice of online engagement with WHS management processes, the infrastructure in place to achieve this, limitations and

opportunities, and the extent to which digital technologies are being used to give people a voice in their heritage.

7.3.2 Virtual Repositories and Passive Engagement

Moyo (2009b) notes that the Internet opens access to both local and global public spheres and the use of hyperlinks to a variety of websites allows people to have access to a range of public documents and sources which consist of material that inform critical and analytical understanding (p.145). With the exception of the tourism-orientated ‘Visit Ironbridge’ website, each of the selected WHS websites contain detailed information related to the management of the WHS. This typically takes the form of virtual libraries or repositories of documents related to the site. This complements wider resources made available through the UNESCO website. This provides open access to authoritative documents for interested parties, such as members of partner organisations, students, academics, or individuals with an interest in the site. Although this use of virtual space is a somewhat passive one, it allows for the increased availability of obscure documents and resources that would otherwise be difficult to obtain. Theoretically at least, the increased access to these materials serves to increase awareness of WHS management procedures and thereby goes some way to enfranchising the audience and stakeholders of the WHS in relation to the site management. Furthermore, it provides them with the material to make informed contributions to the site’s management.

7.3.3 Virtual Participatory Spaces and Consultation

There is recognition across the WHSs that the web can theoretically be used to engage people in the management process. The Derwent Valley Mills WHS website is deemed to be vital to effective communication and is regarded as the ‘key medium for the dissemination of information about the Site, including how it is managed’ (DVMWHS Partnership 2013, p.34). Reference is also made to the ability of users to provide feedback through the website

and to communicate using social media, including Facebook and Twitter in order to attract a wider visitor base (DVMWHS Partnership 2013, p.34).

The Derwent Valley Mills WHS recognise the potential of the web as a space for engagement and participation with the management system and have used it as part of the consultation process for its WHS Management Plan Review. Yet, when asked whether there had been a good response to the online consultation, it was acknowledged that the uptake had been limited. Electronic consultation questionnaires promoted on both the WHS website and the Derbyshire County Council website generated some 274 responses. This was a small response compared with the return of paper questionnaires in which there were 4,268 completed out of the 8,000 distributed (DVMWHS Partnership 2013, p.20). A similar situation was observed in the Cornish Mining WHS where, despite extensive publicity, only 59 questionnaires relating to its WHS Management Plan review were completed digitally, whereas a greater response rate was achieved using traditional paper methods (DB, 40:22).

In the Derwent Valley, the limited up-take on the online consultation was attributed to the fact that it necessitated reading the draft management plan, a 111-page document, which would inevitably take people some time to read and comprehend (AF, 19:52). Whilst this highlights the fact that traditional skills, patience and sustained interest are undoubtedly required to understand the management plan, it does not necessarily preclude the possibility of finding other ways of engaging people with the complex issues involved in WHS management.

Indeed, the management culture of a WHS and its attitude towards the benefits of consultation is likely to impact on how it utilises the digital. Walker (2014) examined the levels of community engagement in the management structure of the Blaenavon WHS. He observed that the Blaenavon WHS Partnership operates a somewhat inflexible management structure in which local people are marginalised. He notes that the key decision making processes lie exclusively in the hands of council officers, local elected members and

delegates from partner organisations. In Walker's view, the general public are typically excluded and are involved only through invitations to special consultation meetings to discuss specific projects that will typically be delivered by Partnership officials (p.188). Walker warns that there is 'no permanent formal structure within the Partnership for allowing for meaningful collaborations with the local community in formulating the aims and objectives of the Partnership as a whole and in individual projects', adding that 'traditional 'experts' remain in a position of authority' (p.194).

The Blaenavon WHS's management structure, introduced in its Management Plan in 1999, embraced the notion of consultation, and public meetings were held with local residents and community groups during the nomination process (Blaenavon Partnership 1999b, section 1.4.4). This process of consultation continued after inscription in 2000 and the number of stakeholders involved in this process was widened through the implementation of the Forgotten Landscapes Programme, a landscape conservation programme scheduled to run from 2010 to 2015 (Blaenavon WHS Partnership 2012, pp.67-70). Nevertheless, the form of the consultation remains essentially the same, in which the WHS Partnership officers inform local stakeholders about projects, typically through meetings with the members of constituted organisations or at occasional public meetings to discuss specific issues.

Irrespective of the effectiveness of the WHS's community engagement efforts, there is certainly a desire to involve residents and local stakeholders in the site's management process.

We welcome any involvement really; we already work with a tremendous amount... if you look at Forgotten Landscapes they've got huge engagement... We obviously have a number of groups that we work with [and] that we work with on management issues, so, for example World Heritage Day Committee, Blaenavon Town Council... [and] Llanfoist [and] Govilon Heritage Groups... so we already engage very widely within the Blaenavon Partnership (RH, 18:14).

These plans and structures, however, were devised before the growth and popularisation of participatory social networking websites. Strategy and practice, on the whole, has not adapted to these changing socio-technical trends. Therefore, the potential of digital media in this context is not being fully exploited or recognised. The web and social media may be used to promote public meetings and projects, for example by posting and sharing press releases or meeting notifications, but they are not currently being utilised as an integral part of the creative problem solving process.

Indeed, in the interview with the representative from the Blaenavon WHS, the link between consultation and how it could be translated to the online space of the web was not immediately made. Following prompting, the response was that the web could be used to access site management information rather than to utilise it as a space in which actual participation could take place. Such an attitude thereby confines the web to a merely passive role. Nevertheless, the potential of social media in the political processes was recognised and reference was made to Torfaen County Borough Council's wider approach whereby information could be exchanged and opinions and points of view made. However, in terms of the WHS, the interviewee claimed the Blaenavon social media tended to be used for general communications and promotion (RH, 19:11).

Within the Cornish Mining WHS, the Cornish Mining Consultative Forum exists as a formal element of the WHS Management Structure and comprises of over forty organisations with interests within the WHS. It was reported that much engagement took place with organisations, individual stakeholders and volunteers within this forum through face to face meetings and traditional communications. Nevertheless, the WHS management team has attempted to encourage greater use of email communication between the stakeholders within this organisation and for people to use the website as an information resource where key documents relating to the WHS can be accessed. Despite this there is still resistance to change as the members of the organisations prefer to continue using traditional media. This

was largely attributed to the demographic make-up of the group, of which a large proportion is retired, with some members not even having access to email (DB, 37:50). This is indicative of a generational digital divide and for as long as traditional methods of communication and engagement are maintained, it appears unlikely that the demand for digital interaction in WHS management will be greatly increased among those already engaged in consultation.

It is possible for virtual space to be ‘stretched’ into actual space in certain contexts. For instance, people participating within consultation sessions are able to use the web, before, during or after the meeting, to access resources and evidence relating to the WHS to inform their contributions. Some of the attendees at such meetings utilise the micro-blogging website Twitter to ‘tweet’ brief comments about the topic being discussed and their opinions on the matter. In the context of Blaenavon, at various public meetings, whether specifically about the WHS or not, elected council members, council officers or attendees at a meeting have shared their perspectives to the hashtag #blaenavon or #blaenavonlife, thereby raising awareness to their networks of followers. Whilst this might prompt interest or inspire debate, current practice does not indicate any profound or transformative impacts as a result.

7.3.4 Virtual Engagement with Stakeholders

The examples cited above principally involve ‘real world’ engagement with residents and groups, usually through the form of meetings and formal consultation. Focusing on established or constituted groups, with clearly designated representatives, is perhaps a more comfortable, convenient and time-tested method for WHS managers. With minutes, agendas and structured meetings, held at a set time and space, stakeholder relationships can be formally managed. The use of the participatory web, on the other hand, is a new phenomenon. It is a new environment which lacks the formality and conventions of the actual. Indeed, Waterton (2010) notes that whilst there is potential for online enfranchisement and engagement, cultural organisations may view online communities,

implicitly or explicitly, as ‘false’ or ‘inauthentic’ and consequently not afford them the same status or recognition as they would towards groups existing in actuality (pp.5-6).

It is not anticipated that, as a consequence of digital alternatives, meetings held with local stakeholders in actuality will, or should, cease. Certainly these serve as key consultative mechanisms that ensure dialogue between WHS managers and stakeholders. However, they do not serve all interested parties. The web, with its large numbers of users, provides a space where many more people can be engaged. Indeed, within the qualitative interviews for this study, it was indicated that local people are interested in how their WHS is managed but some currently feel that their lifestyles do not afford them the time to get involved or that they simply do not know how they could make a contribution.

‘Mary’, a resident within the Blaenavon WHS, explained that she did not tend to get involved in opportunities to have her say in the various public consultation meetings that take place in the WHS. However, when asked if she would like to have an input into the management of the site, she replied:

Yes, I suppose so as I’m getting older, I’m you know... you get more passionate about where you live. But it’s so difficult to do that as it’s so time-consuming to do that that it kind of puts you off (Mary, 28:56).

The relaxation and flexibility of temporal-spatial constraints within the virtual means that online participation may be more convenient and palatable to stakeholders with an interest in their heritage. Another Blaenavon resident, ‘William’, explained that he too would like to be more involved in how the site is run. To his knowledge, he felt that there were few opportunities to participate in the WHS and if there were ways to get involved he did not know about them. He noted that ‘as a resident and sort of a stakeholder, we [Blaenavon residents], should have our opinions’ (William, 43:36). Both William and Mary believed that the web would provide a useful forum for them to articulate their views and share ideas about how the WHS should be managed. William, for example, was familiar with the notion of e-politics and has signed a couple of online petitions in order to articulate his democratic

rights through a virtual space (William, 44:02). Neither, however, used the WHS's Facebook page to participate in discussions about the WHS, thereby indicating that they do not see participation as a pressing need or that the possibility of engaging with WHSs through such media had not previously occurred to them.

Social media pages and groups run by both WHS management organisations, partner attractions and community groups exist online, notably on Facebook, and have clear relevance to the various WHSs. Across these websites, thousands of people are members, thereby viewing, sharing, commenting and participating. The web and these social networking websites in particular have an amorphous and fluid nature. These spaces and groups are much harder to define than the traditional groups in actuality, as people come and go, at different times from different places. They are, however, spaces and communities in their own right and offer potential for meaningful interaction and participation.

7.3.4.1 Overcoming Complexity

In respect of engagement with community groups in actuality, the complexity of certain aspects of the management process was noted by the BILWHS who view it as a limitation on full participation.

Obviously there will be certain management activities that general groups... cannot be involved in as they're too complex (RH, 18:14).

Indeed, this complexity was also recognised by the DVMWHS but nonetheless the site views this as a challenge to overcome and intends to make further progress in the area. The co-ordinator noted the potential to use digital technology to help people comprehend the multifaceted issues involved in the management of a WHS.

I think there is [potential to use the web to engage people with the management process] and I think we don't do enough of it. I think there are management issues that people need to get their heads around and we could... get people's attention if we provided a more interesting way of engaging with that management process and the website is the obvious place to do that, so hopefully we'll get there at some point (AF, 20:19).

Levels of interaction and the quality of participation are, to an extent, influenced by the knowledge and personal background of the individual participant concerning the WHS. The survey conducted with the online users of WHS-related social media pages revealed that some 44.96% of the sample had attained a university degree or postgraduate qualification, with 71.4% of the participants having achieved a Further Education qualification or above. Therefore, it is clear that the current online audience for cultural heritage is an educated one. The survey data also indicates that some 74.2% of the users are local in the sense that they live within a fifteen-mile radius of one of the selected WHSs. Furthermore, some 76.2% of the online participants claimed to understand what a WHS was, with 92.5% believing that they had visited at least one site. The combination of these factors makes it probable that this virtual audience would be able to understand the issues concerned and make meaningful contributions to the WHS management processes. There is perhaps potential in using the web to engage such audiences with World Heritage issues and to encourage them to become virtual (or actual) ambassadors for the WHS.

Jenkins (2008) notes the tendency for participants in virtual communities to serve as ‘advocates’ or ‘moral guardians’ of brands (2008, p.73). The focus of Jenkins’s work is popular culture but the same may apply to people who feel an affinity or connection with heritage sites or causes. Jenkins advocates that organisations or ‘producers’ should encourage participation and engage with virtual communities or risk losing support (Jenkins 2008, pp.137-138). Indeed, he warns that online communities can serve either as the ‘best allies’ or ‘worst enemies’ of producers (Jenkins 2008, p.58). This is potentially true of WHSs and their stakeholders.

As outlined above, where WHSs currently attempt to communicate with its audiences online, whether for marketing or consultative purposes, they typically do so through their own branded websites and social media pages. However, the multiplicity of spaces on the web means that groups are in existence in which local stakeholders are interacting and discussing

WHS-related topics, irrespective of whether the site managers are participants within these spaces or not. The social media groups that have been established, typically to discuss local history and community life, do not necessarily concern themselves with the presentation of outstanding universal value (and certainly do not use such terms) but inevitably discussions often focus on certain components of the WHS, particularly if these components have a more immediate or personal meaning to the participant. In certain cases, where there is a perception that a feature of the community's heritage is not being conserved to the appropriate standard, social media can be used to criticise or at least call attention to features in need of preservation.

In the case of the Blaenavon WHS, the 'Blaenafon Past and Present' Facebook group includes long discussions about the conservation of Ty Mawr, a mansion built by Blaenavon Ironmaster Samuel Hopkins in c.1798 and later extended.



It is a component of the site's OUV in the respect that it illustrates an aspect of the social structure of the Industrial Revolution. During the twentieth century, the building became a workers' hospital and ultimately a privately-owned nursing home, before its closure in 2006. The building has since fallen into a state of dereliction (Watson and Brown 2013, pp. 4-5).

The condition of the building has alarmed local people and the web has been used as a space in which concern over a loss of heritage has been articulated. A series of 'You Tube' videos, highlighting the damage done to the building and other features of the Blaenavon landscape, were published online in 2010 (frankkeen 2010). These films accused Torfaen County Borough Council and Cadw: Welsh Historic Monuments, both key partners in the Blaenavon WHS Partnership, of neglecting aspects of the WHS, stating that Ty Mawr is the 'site that

Torfaen or Cadw don't want you to see or talk about'.²² In this sense, there was a perception by the video's creator, that the WHS management, through its selective presentation, attempts to control the 'gaze' of its stakeholders (Urry and Larsen 2011) by only representing the 'acceptable' elements of the WHS, namely those features that are well conserved and visitor-friendly. The web, however, has been deliberately used to transcend the 'authorised' gaze and allow for the democratisation of heritage, encouraging people to campaign for improved conservation. One such video was posted to the 'Blaenafon Past and Present' page in December 2013, prompting further discussion within a number of well-subscribed threads on the topic. It has since been a recurring subject.

Whilst the web activity demonstrates to the WHS management the public affection towards the building and support of its conservation, in actuality these web-based activities have little impact on the WHS or its management. The financial, political and organisational structures and realities of the offline world still prevail and an online heritage group is not going to be able to do much more than assume the role of a virtual pressure group. The level of influence that the web, in such circumstances, can have on the management of WHSs therefore remains limited by external factors including property law, planning, private-sector investments, financial markets and public sector budgets. The online communities and the WHS Partnership cannot easily overcome these issues, despite best intentions by both parties.

7.3.4.2 Participation in the Presentation of Heritage

There is also potential for participation within the field of heritage interpretation but again there are limitations on the extent to which this can take place. As outlined in chapter six, social media sites and groups dedicated to the sharing or discussion of heritage are now commonplace. Silberman and Purser make the analogy between online heritage and the 'corner bars in town squares' and evenings around the campfire, where people traditionally

²² This thesis in no way endorses this view and does not make any judgement on the issues concerning the dereliction of the building. The quote has been included to illustrate the antagonistic behaviour that can exist between local residents and heritage authorities in an online space.

came together to reminisce or share stories of the past (2012, p.14). Participatory websites provide a virtual space in which people from all over the world can ‘meet’ and engage in the ‘real’ processes of reminiscence and the articulation and transmission of intangible cultural heritage. Simon (2012) considers the process of ‘remembering together’ as a ‘lived social practice’ whether it be through digital media or otherwise (p.91). In this respect, such groups are not merely representative, consisting of just representations of the past such as photographs, the practice is a real social activity in its own right, in which spaces of imagination and identity formation may take place.

Silberman and Purser (2012) argue that the rise of participatory web 2.0 technologies means that the heritage industry will be transformed to the extent that the role of curators and conservators will be reduced to ‘that of facilitators rather than authoritative scripters and arbiters of authenticity’ (p.13). This is a questionable assertion and something of a generalisation, as when examining the specific context of industrial WHSs, the impact appears to be less far reaching. The social media spaces associated with WHSs reveal an extensive amateur interest by group members in the history of their localities. A steady flow of historical photographs is shared, discussed and enjoyed. People use the space to discuss personal or family memories, or insights or interpretations derived from local stories or the consultation of primary or secondary historical source material. The content varies in quality, with the historic accuracy of some of the contributions being left wanting.²³ The material is not indexed or catalogued in any logical way, indicative of the fluid nature of this liminoid space. Nevertheless, a creative and expressive space is formed in which people with an affiliation to a physical locality meet in virtuality to collaborate, communicate and share their heritage.

²³ The researcher has 13 years’ experience researching the history of the Blaenavon WHS. On accessing the online communities associated with Blaenavon, it was immediately evident that, in some cases (but not all), contributors were providing historically inaccurate information.

The discussions within these pages are varied and it is evident that the heritage associated with the WHS area has different meanings for different people. Globally, these sites are recognised as being of OUV and it is this which WHS managers have been charged with presenting and preserving. However, these sites also have local, familial and personal values to the people associated with them. Such heritage is expressed online within this virtual space. The communities take a somewhat parochial approach, and are very locally focused. Therefore, although of local interest, the content is not necessarily relevant to tourists seeking to visit and explore the global significance of the site even in cases where the heritage being discussed does relate to the WHS values. For example, one discussion on the Blaenafon Past & Present site focused on a 1960s photograph of industrial workers' housing. To the conservationists and the heritage experts these properties are important due to their archaeological and historical merit (Lowe 1977) but discussion online focused on people's personal memories of the dwellings. One contributor, remembered doing a paper-round to the houses during his youth. The association the contributor had with those houses is what gave the photograph and indeed the heritage component significance to him rather than its OUV. Similarly, a lengthy discussion took place on the Ironbridge Gorge Museums Trust Facebook page related to a photograph of a 1980s Saturday children's television programme filmed in the Ironbridge WHS. This has little to do with OUV but nonetheless there was a long exchange in which people shared their memories of the programme and the filming of it within the Gorge. These memories are heritage but they are not automatically the same heritage values that WHS management have a duty to present.

Such online communities do not necessarily threaten the role of heritage professionals in presenting and interpreting the heritage of a WHS. These disorganised, informal and amateur attempts to present heritage do not replicate, compete with, or replace the concise, well researched and professionally displayed exhibitions and interpretative media produced by heritage professionals and made available at the main visitor attractions and official

websites. Nor do they intend to do so. In some respects, such groups are a new form of local historical societies, albeit without the formal structures and the necessity to meet in actuality at a specific time and place. These groups allow people from all over the world to engage in heritage-related activities, in real-time, and at a time and place suited to their needs. Documents, photographs, films and resources can be shared at the click of a button and are distributed and exchanged for pleasure, liminoid experiences and informal education.

WHS Managers do not have a monopoly over the interpretation or presentation of WHSs. UNESCO, through the Operational Guidelines Concerning the Implementation of the World Heritage Convention, states ‘that any individual, organisation or company is free to publish or produce whatever they consider to be appropriate regarding World Heritage properties’ (UNESCO 2013, 275d). Indeed, amateur participation in heritage is nothing new. Local history, genealogy and other non-professional groups have existed for many years (Riden 1998, pp.1-20). Historical societies do not notably threaten the role of curators and professionals in presenting heritage and it seems unlikely that the amorphous online groups could pose any significant challenge in this respect, especially in a tourism context. Indeed, WHS managers stressed the need to maintain authenticity, high standards of research and presentation commensurate with the WHS’s OUV. In the Cornish Mining WHS the co-ordinator felt that the interpretative content needed to have a ‘sense of integrity and gravitas’ befitting its prestigious status as a UNESCO WHS (DB, 29:14).

The role of heritage practitioners as facilitators is not something that has arisen as a consequence of the digital. Local people and residents are often the champions of the heritage of a particular community. Heritage organisations from time to time utilise the knowledge of local people, groups and organisations. Heritage sites not only attempt to cater for visitors, they frequently attempt to play a role within a community (Ciolfi 2012, p.80). Heritage attractions may also offer up physical space, such as a gallery, for local groups to

put on temporary exhibitions which can then be presented to both local people and tourists alike (see Plate 7.2).



Plate 7.2. A temporary exhibition entitled 'Barter to Book Town', charting the retail development of Blaenavon. The exhibition was produced independently by volunteers in a local history group and was displayed at the Blaenavon World Heritage Centre from November 2014. Through the use of comment books (seen on the left of the photograph), visitors were encouraged to make corrections and add their own insights and memories in relation to the display. Exhibitions such as these allow communities (in a non-digital way) to assume temporary control over a physical space owned by the heritage management organisation and to interpret and present heritage in their own way. It also allows for participation with visitors and the community, affording people a voice in their heritage. Whilst the web and social media allows participation and engagement outside the confines of ordinary time and space and with geo-spatially disparate audiences, the practice of amateurs and interested groups publishing and presenting heritage was already well-established before the advent of the web.

Heritage organisations may also fund or sponsor activities by voluntary groups, possibly leading to publication. Indeed, Parry (2007) notes that in the context of museums, workshops, visitors' books and 'Friends of the Museum' schemes, have already given people input into cultural heritage institutions (p.109). Therefore, there is potential for collaboration between service providers and grassroots online heritage groups. In the case of WHSs this process of grassroots participation in heritage, does not so much threaten the role of the WHS management, it arguably complements it. There is no evidence of the members of these online groups demanding or requesting actual space to present their material but there is

potential and opportunity to utilise the passion of the members of these virtual communities in order to further the aims of the WHS.

The lack of demand, however, is coupled with a lack of willingness among the WHSs to actively pursue participation in this area through digital media. None of the selected WHSs intends to actively develop online participation in heritage interpretation. In the Blaenavon WHS the Community Heritage Officer noted that the practicalities of such an approach would pose difficulties for the team:

In an ideal situation I think yes that [community involvement in heritage interpretation] would be an absolutely amazing thing... ideally that would be the way to go forward is get the people to interpret their own history which you know I think is recognised that that's the best way to do things. On the practical side that is quite difficult to do, it's very time-consuming and to focus people in a way that we will get an interpretation out of it can be complicated... and then with the digital side obviously you've then got to up-skill people eventually as well (AT, 12:50).

She felt that such an approach would be better suited to specific projects rather than becoming an 'embedded culture' within the organisation's approach to heritage interpretation (AT, 12:50). This attitude has also been identified by Simon (2010), who argues that whilst such activities may be seen as time-consuming and inefficient, engaging with content created by users is a useful way to strengthen links with the local community, to foster loyalty and support, and to encourage creativity (p.197).

Despite the potential advantages, however, similar attitudes were held by the managers of other WHSs. A concern articulated by the Cornish Mining WHS was that actively soliciting and editing user-generated content would result in an administrative burden on the WHS team, although the site management was happy for people to share their stories via Facebook if they wished (DB, 31:30). It was also noted that the WHS does support and work with

community groups doing various projects across the site and would host or link to any digital content produced through such projects (DB, 29:14).²⁴

In reference to traditional forms of heritage interpretation, Silberman and Purser (2012) note that '[audience] interactivity remained largely unacknowledged by public institutions and was rarely used to enrich the public interpretation of the heritage itself' (p.14). Yet even with the use of social media and grassroots online groups there is currently little evidence of any substantial culture change in which WHSs acknowledge user-submitted interpretations and take steps to include them within their wider interpretation of the WHSs. Indeed, the potential for WHSs to engage with online groups for interpretative purposes appears to be largely underappreciated.

Simon (2010) notes the great potential of participatory practice in the cultural heritage sector to generate new content that can offer multiple or alternative interpretations of the past, creativity and a diversification of the visitor offer (pp. ii-iv). Furthermore, she contends that such content, and the diversity in opinion, can help foster dialogue, discussion and debate among the audience. She argues that it is possible for such participatory interpretation to be included alongside more traditional approaches, thereby enhancing and complementing the existing offer rather than completely replacing it (Simon 2010, p. iv).

WHSs could therefore engage with the participants within virtual space and encourage the uploading of the stories, documents and photographs that people possess. The value of these historical sources may not necessarily be recognised by the group members in terms of its links to OUV and the WHS but professionals involved in managing and interpreting the site

²⁴ In a wider context, sites encourage presentational projects. Within the Blaenavon WHS the management takes pride in its community engagement, including its work with schools and local children through the annual World Heritage Day celebrations. The link between creativity and learning is mentioned but no consideration is given to how such principles could be translated into a virtual context (RH, 13:36). In the Derwent Valley Mills engagement with school children has been achieved through an art competition, allowing children's art to be posted online (AF, 18:13). In the Cornish Mining WHS there is engagement with schools through educational programmes, in which the WHS has been innovatively interpreted through music (DB, 33:53). These projects can be made available digitally. In these examples, however, the digital is a secondary consideration. It plays the role of a tool through which real world activities can be promoted.

may be able to filter out useful content within this space and potentially utilise it in future interpretative or educational projects. It is therefore a useful way to ‘crowd source’ content, particularly if a specific research area is being undertaken by an individual or organisation. It can also be used as a space to get feedback on interpretative projects, share ideas and collaborate. Invitations could also be made within these spaces for people to become virtual volunteers on behalf of the WHS. The availability of online historical resources such as the Welsh Newspapers Online website (as identified in chapter three) presents opportunities in this respect. Online resources, sometimes freely available, offer ways to engage ‘offline’ groups, such as local history groups with members unfamiliar with digital technologies, in sessions that can provide an education in the WHS, historical research and digital technologies, as well as providing useful outputs for the WHS.

7.4 CHANGING CULTURES

The fieldwork interviews indicate that WHS personnel do not currently feel that their position is challenged or threatened by the increased use of digital technologies in their field. Indeed, the attitude in Blaenavon towards the potential threats of digital heritage tourism appeared to be quite relaxed. When asked whether the rise of digital technology may impact on the provision of traditional tourism services, it was argued that there was a demand for human interaction rather than just using machines, thereby retaining a need for tourist information centres and visitor centres as a means to communicate with service users. In terms of employment and staffing levels the Blaenavon WHS feel that the digital does not pose a threat at the present time, although no long term guarantees could be made. In-fact the development of digital tourism was seen as an opportunity to generate new employment, especially in the heritage creative industries.

Even digital apps need people to input, update, develop [and] design... so the human resource is very important in actually delivering the digital agenda and I do think that some people in society still like to deal with people, not technology (RH, 28:22).

Yet, as this chapter has illustrated, despite there being no profound impacts thus far, the opportunities offered by digital technologies provide new ways for WHSs to deliver their longstanding objectives. The need for participatory activities to be meaningful and relevant to organisational goals or targets has been stressed by Simon (2010, p.17). For instance, she suggests a number of areas in which increased audience participation can help an organisation deliver positive outcomes, including the attraction of new audiences, improved marketing and promotion, new educational experiences, community engagement and the encouragement of conversation and debate among service users (Simon 2010, p.16). Such outcomes have relevance for WHSs and, if pursued using participatory media, will necessitate adjustments to the role played by WHS staff throughout the disciplines associated with the site's management. These changes go beyond simply using ICTs as part of the work environment, they potentially necessitate new ways of working and a shift in organisational culture (Simon 2010, p.322).

The multiplicity of spaces on the Internet enables staff with responsibilities for marketing and promotion to enter into niche spaces and special interest communities, using a whole host of new social media platforms to communicate with their members and promote services. In the moral economy of the web, the messages of the WHSs are more likely to get a positive response if the content offered in these marketing messages is interesting and relevant to the purpose of that group (Vaynerchuk 2013; Germann-Molz 2013; Zeng and Gerritsen 2014, p.31; Munar and Jacobsen 2014). To do so effectively, however, such staff need to be cognisant of the needs of the audience and able to provide a steady flow of good quality content that is personalised and delivered to selected groups. This will involve more customer interaction, innovation and product knowledge than more general marketing approaches such as generic leaflets, posters, brochures and flyers. Collaboration with staff involved in heritage interpretation is likely to prove advantageous in this respect. The development of online, liminoid experiences that provide representative travel through space

and time can be employed to excite, interest and inspire the audience of cultural heritage. Links to such content can be provided through social media pages, on the WHS's own pages but also in other relevant online communities.

As outlined in chapter six, the appreciation and ability to present cultural heritage in an engaging way is a key currency in such an economy. Interpretation staff can demonstrate their knowledge and expertise about the site, engaging in conversations with interested members, answering questions and acquiring a good reputation within the moral economy of these online spaces. The demonstration of expertise within the field can also be made by other professionals involved in WHS management such as the site co-ordinators, planners, historians and conservationists. This can be done within social media websites such as Facebook, through the site's official websites, through blogs or video content. Such an approach can be used to build trust and authority in an online space, to educate and to share expertise with others working within the field.

The issue of 'trust' also applies to cultural organisations and how they view their audiences. The concept of 'radical trust' refers to the faith that cultural organisations, governments or businesses have in collaborating with virtual communities (Spaddacini 2006; Dilenschneider 2011). Under such arrangements, the organisation trusts and values the contributions of online communities and is prepared to utilise insights generated through such interactions to influence the organisation's activities (Dilenschneider 2011). Radical trust involves a relaxing of the control and power traditionally enjoyed by managers of organisations (Lynch and Alberti 2010, pp.15-16).

Spaddacini and Chan (2007) observe 'radical trust' in the practice of museum blogging, whereby communities have been entrusted and encouraged to comment and discuss museum content publicly. Lynch and Alberti (2010), however, go further and argue that museums which are 'radically trusting', in online or offline contexts, can become increasingly collaborative and trusting by not attempting to control the process of collaboration or the

end product, even if it involves multiple, conflicting or controversial interpretations (Lynch and Alberti 2010, p.15). Lynch and Alberti argue that the result of museums relinquishing control can be unpredictable but can contribute to heritage institutions becoming democratic, participatory spaces through which skills of citizenship and debate can be learnt or articulated (2010, pp.30-31).

The 'radical trust' advocated by Lynch and Alberti (2010) is certainly not the approach being currently taken by WHS managers. There is potential, however, for some of the principles of 'radical trust' to be utilised by WHSs to build mutually beneficial relationships with their stakeholders. The involvement of online audiences, for instance, can be a beneficial way of acquiring feedback, consulting on planning proposals, site management plans, future projects, interpretation and problem identification. In all aspects of WHS management, the web can be used to monitor, listen to and engage with the views of the key stakeholders within the WHS process, particularly the visitors and local residents. It poses a challenge to inform people about management processes, inspire them in taking an active interest in participation and to devise credible ways in which these voices can be listened to, allowing this liminoid space to deliver impacts in actuality. In all of the above fields, there is pressure on WHS staff to foster and nurture virtual ambassadors for the WHS who will use their own social networks to spread positive word of mouth about the WHS.

At all levels, from tourist information to forward planning, the web places pressure on sites to deliver excellent customer service both virtually and in actuality. Bad experiences in actuality can be highlighted online by disgruntled service users and online interactions take place in a public space before a global audience in a manner that is easily retrievable or sharable (Edwards 2013). The reduction of temporal-spatial constraints afforded by the web also means that virtual interactions need not take place within the traditional working hours of 9am to 5pm. The service users are accessing the web at all times of the day and perhaps

more frequently in the evenings. This applies pressure for customer service to be delivered online outside of the traditional working hours.

If WHS personnel are to enter relevant online spaces, they need to build (and show) trust and earn respect and authority as equal members of those communities, albeit as individuals who can provide assistance and perhaps foster, facilitate and bring about change through their positions in the 'offline' world. To do this, it may be necessary for individual members of the WHS teams to take part within these spaces and become active participants. By sharing their expertise and insights on WHS management they may be able to raise not only their own professional profile but also articulate the values of the WHS, spread awareness of the work of the management team, address misconceptions and criticism as well as using it to talk with their audiences. It is not about offering a panacea to everyone's concerns about the WHS – the restrictions of the actual remain pertinent in the virtual - but it is a mechanism through which constructive feedback can be actively listened to and engaged with.

The hierarchies in this digital economy are different. Being a high grade council officer may afford a person a certain level of respect or prestige in an actual meeting but these distinctions are blurred online. Such power relationships in this liminoid space are renegotiated, with key influencers being the producers and sharers of interesting content, those who help their fellow members, and people who publicly demonstrate knowledge of the subjects being discussed.²⁵ The space is governed through a moral economy, generally marked by co-operation, sharing, politeness and a shared appreciation for the area's history and heritage. The culture of co-operation and reciprocity rewards contributors with 'likes' or 'shares' rather than any monetary reward (Van Dijck 2013, p.11; Munar and Jacobsen 2014, pp.48-52). The enthusiasm, interest and goodwill of these communities can be cultivated, harnessed

²⁵ Jenkins et al (2013) discuss a similar form of 'gift economy in respect of online community engagement with popular culture (pp.62-74).

and applied to the good of the WHS through engagement, education and marketing programmes.

There is little evidence to suggest that traditional roles are being substantially threatened by the use of digital technologies. In terms of the roles of staff, however, it is clear that expertise and professionalism is still needed, especially to allow WHSs to make an impact in a digital environment and, of course, to ensure that the WHS is managed, presented and conserved to professional standards commensurate with ICOMOS and UNESCO expectations. Rather than replacing roles, it extends them, meaning that the functions members of staff play in actuality can be 'stretched' into a virtual role. The potential and implications of this has not been fully or extensively explored by the selected WHSs thus far. Strategy has yet to be developed to explore these opportunities and to develop or adapt an organisational culture that is compatible with the digital age.

Indeed, Simon (2010) argues that the full participatory potential of heritage organisations can only be achieved if it is 'aligned with organisational culture' (p.322). She notes that staff, at all levels, need to be permitted to embrace the participatory culture to encourage and foster the creativity and insight of their audience and stakeholders (p.201). Simon acknowledges, however, that organisational cultures offer resistance to change, as heritage professionals seek to preserve their position of dominance (2010, p.324). She contends that most resistance is likely to be found at senior managerial level, particularly among those who have little actual contact with visitors or service users (Simon 2010, p.330). This resistance appears, to an extent, to be evident within this study into current practice within the WHSs, where senior managers appear somewhat reluctant to exploit the full potential of participatory media in respect of their sites.

Nevertheless, managerial cultures and attitudes can change over time. Simon notes that organisational change can be realised from the 'top-down' through the introduction of new managers or personnel who may have different attitudes or approaches from their

predecessors. Alternatively, she argues, change can be brought about from the ‘bottom-up’ through the behaviour, innovations and activities of junior staff or volunteers within an organisation (Simon 2010, p.343). Pressure to embrace participation may, in time, also come from the grassroots groups that are already in existence. This study presents data at a time where cultural organisations are still coming to terms with the changes brought about by the increased use of participatory technologies. There would therefore be merit in examining the case studies in the future to evaluate the extent to which managerial practice and culture has changed.

7.5 LIMITATIONS

Caution must be exercised before predicting or declaring any profound transformation in the selected UNESCO WHSs in respect of digital virtualities. There are some barriers to transformation which thereby restrict the potential of digital technologies within the selected sites. These barriers come in the form of the WHS’s management culture (as discussed above), the behaviours of its service users, the nature of the site itself and a combination of these factors.

7.5.1 Technical Issues During Corporeal Visits

During a corporeal visit to a site or whilst staying with an accommodation provider, Wi-Fi or 3G/4G mobile Internet coverage is not necessarily available, meaning that access to tourist information services and websites online would not be possible, thereby ensuring that the demand for leaflets, tourist information centres and traditional interpretation media is retained. Ongoing technological progress and infrastructural investments (as highlighted in chapter three) is likely to address some of these concerns. Depending on the nature of the tourist visit, leaflets may be more appropriate, especially if conditions are unsuitable for using digital technology such as sandy beaches, water or inclement weather. Hard copies of leaflets, promotional material and traditional interpretation panels are more durable and reliable than the digital solutions.

7.5.2 Digital Inclusion and Usage

Digital inclusion remains a pertinent issue in respect of the ability to engage with digital technologies and experiences in cultural heritage and tourism. With all the selected WHSs it was clear that the site managers felt that people within older age groups were an important segment of the audience. Statistically, these older demographics are less likely to be digitally engaged, whether totally digitally excluded or not embracing the full opportunities offered through digital media. It is a changing situation, however. The statistics highlighted in chapters one and three illustrate the growth of ICT in recent years, demonstrating that digital inclusion is increasing and Internet access is becoming increasingly mobile.

Yet, as the data in chapter six suggests, even among the digitally included audiences, there is substantial variation in usage, with most people being inclined to be passive users of the technology in a cultural heritage tourism context. The demand to interact, collaborate and co-operate does not appear to be overwhelming. This means that beyond providing a website, WHS managers do not have to feel pressurised into providing digital experiences and apps, as large proportions of their visitors are not currently comfortable with using the technologies in that way and, for the most part, are not demanding it.

7.5.3 Persistence of Traditional Paradigms

Within the digitally included sample, a preference for the older paradigms and the familiar could be discerned. Some of the participants cited that they simply enjoyed flicking through a leaflet. Traditional media can be more inviting than a website. For example, if promotional literature is displayed in a café, hotel or public place, people will pick them up and look at destinations that they may not have considered looking up on the Internet. This preference is likely to be greater among the older demographic, especially the digitally excluded, who are accustomed to using these traditional forms of tourist information. The same principles apply to the use of interpretation panels, the reading of guidebooks and, in the context of participation and consultation, attending meetings in actuality. The tangible and the actual

are still important. Unless the actual is removed, the traditional paradigms will continue and the digital will not fully replace them (Van Dijk 2005, p.5).

Indeed, the WHSs continue to print leaflets, brochures and other traditional material. Within the Derwent Valley Mills WHS traditional marketing remains an important part of the site's promotions. For instance, 64,000 copies of the WHS visitor guide are still produced each year and sent to a range of tourist information centres and relevant outlets (DVMWHS Partnership 2013, p.34). Nevertheless, social media marketing is seen as being cost-effective. For instance, the site acquired one thousand followers on Twitter within just six months (DVMWHS Partnership 2013, p.51).

Through the online survey, participants were asked whether they felt the availability of digital technologies had impacted on their use of traditional tourism media:

Table 7.3: Does digital technology mean you would be less likely to use traditional tourism support services such as brochures, leaflets or Tourist Information Centres?

	Under 16 yrs	16-25 yrs	26-35 yrs	36-45 yrs	46-55 yrs	56-65 yrs	66-75 yrs	76 yrs and over
NO	0	3 (60% of age group)	8 (44.4%)	12 (52.2%)	11 (32.4%)	20 (66.7%)	7 (63.6%)	2 (100%)
YES	0	2 (40%)	8 (44.4%)	6 (26.1%)	12 (35.3%)	5 (16.7%)	3 (27.3%)	0 (0%)
MAYBE	0	0 (0%)	2 (11.1%)	5 (21.7%)	11 (32.4%)	5 (16.7%)	1 (9%)	0 (0%)
TOTAL	0	5	18	23	34	30	11	2

The 'No' option categorically rules out that the participant feels that their likelihood to use traditional tourism support media has been reduced due digital technology. The figures suggest that older people are more likely to continue using the traditional media. In percentage terms, there is a noticeable shift between the '46-55' age group and the '56-65' age group, with less than one third of people within the former saying that digital technology would not impact on their use of the traditional support service, compared with over two thirds of people in the latter. A very small sample was available for the younger age groups,

i.e. those aged 25 years or younger, so the figures cannot be considered representative of all age groups. The age groups most likely to feel that digital technology has or might have reduced their usage of traditional tourist information services are the 46-55 year olds, followed by the 26 to 35 year olds.

Table 7.4: The impact of ICTs on Traditional Tourism Support Services (By Age Group)

Age Group	Percentage of 'Yes' and 'Maybe' Responses
16 to 25 year olds	40% (very limited sample)
26 to 35 year olds	55.6%
36 to 45 year olds	47.8%
46 to 55 year olds	67.6%
56 to 65 year olds	33.3%
66 to 75 year olds	36.4%
76 years and over	0% (very limited sample)

The desire for interpersonal interaction was a theme which could be identified in the results. This was largely for social reasons and the belief that such interaction can enhance a visit. It was claimed that, theoretically at least, it can be easier to ask a direct question to a person and receive an appropriate answer rather 'than trawling through the sites' looking for specific information. This was cited as being particularly useful if online information was vague and required clarification. People's experiences of tourist information centres, however, varied. Some observed that the staff they had encountered were 'very knowledgeable' (Online Survey Respondent, No. 108) yet one of the respondents noted that in some cases TIC staff simply read out information from brochures or websites and lacked the personal knowledge which should differentiate interpersonal tourist information from other media.

With the right person working at the TIC, face-to-face is best but this isn't often the case in my experience... sometimes speaking to someone directly gets better info, problems occur when folk without the knowledge are employed to supply it and just use brochure information, which only covers the tip of the iceberg. Local knowledge is key (Online Survey Respondent, No. 4, female, aged 46-55 years).

Whether in a digital or actual context, there is a demand for quality information, accuracy and depth of knowledge. There is a place for both digital tourist information and the more traditional forms, as they can both complement each other. However, for the traditional to survive it needs to demonstrate a level of customer service, personalisation and quality that cannot be obtained through static websites. The rise of web 2.0 technologies allows communication between tourist information staff and customers so it is possible to demonstrate high levels of customer service online.

7.6 CONCLUSION

This chapter has attempted to illustrate the extent to which the relationship between the management and stakeholders of the selected industrial UNESCO WHSs has been affected through the use of digital technologies. The results have indicated that the impact on WHS has thus far been limited but there are clear indications of where challenges are emerging and will continue to develop in the future. WHSs have taken advantage of the web as a way of communicating with its audience but the only area in which this relationship has substantially changed is through the provision of tourist information, with websites and the World Wide Web forming an almost ubiquitous element of people's tourist information habits. This creates challenges for the existing forms of tourist information and budget-setting authorities may view the web as a cheaper alternative to dedicated and staffed tourism offices, prompting a re-evaluation of existing roles.

The current audience of cultural heritage tourism in the selected WHSs appears to be quite content with the traditional paradigms, showing only lukewarm to moderate support for the various applications of the new technologies in the cultural tourism context. There is evidence, however, of digital heritage assuming a new role in the respect of online local communities, including WHSs. Such communities allow for sharing, gathering and discovering historical information and heritage in a liminoid space but are somewhat

removed from the structures of WHSs and OUV. There are significant opportunities for WHS personnel to engage more strongly with stakeholders in these digital groups.

The web undoubtedly offers opportunities for the presentation of WHSs to be enhanced, allowing for greater inclusivity and widespread participation as well as improved levels of communication. The impacts, outside the provision of tourist information, are currently unprofound. Traditional roles are still required in conservation, history, marketing, planning and other disciplines. The digital may allow more innovation to be explored within these occupations but not to the extent that these positions are no longer required.

8 CONCLUSION

8.1 INTRODUCTION

This chapter synthesises the various issues under discussion within the thesis and places this study's original contribution to knowledge within the relevant body of academic literature on the subject. The chapter reflects on the aims and objectives of the project and provides an overview of the key findings of the research, along with a discussion of the potential implications on the cultural heritage industry, particularly the project partner, the Blaenavon Industrial Landscape WHS. Furthermore, it identifies ways in which further research can examine, in greater detail and in different contexts, the issues that have emerged through this PhD project.

The research arose from an applied context, namely the need of the Blaenavon Industrial Landscape WHS to develop understanding of the current strategy and use of digital technologies in the presentation of UNESCO WHSs; how audience expectations relate to these strategies; and how the web forms a space in which the relationship between WHSs and their audiences can be developed and mediated. To address academically the needs of the project partner, the research took a multidisciplinary approach and positioned itself within the fields of digital economy, heritage and tourism.

From a digital economy perspective academics have been concerned to explain and theorise the macro-economic developments that have affected economy and society as a consequence of the dissemination and proliferation of ICTs throughout the globe. Within the digital economy literature there have been demands for greater research into the manifestations and implications of digital technology in specific contexts. As outlined in the literature review in chapter two, the heritage and tourism industries have been increasingly interested in the digital with the academic disciplines associated with these areas moving towards the study of the phenomena.

Three research questions were deployed in order to understand the ‘supply’ and ‘demand’ dynamics of digital heritage tourism in the selected sites and their interrelationship:

1. How and why do industrial World Heritage Site managers use digital technology to present their WHSs?
2. What does the audience of the industrial WHSs expect from digital technology in a cultural heritage tourism context?
3. How and why does the use of digital technology impact on the relationship between industrial WHSs and their audience?

Through a comparative case study methodology, the research considered the implications of digital virtualities in the context of four industrial World Cultural Heritage Sites, namely the Blaenavon Industrial Landscape, the Cornwall and West Devon Mining Landscape, the Derwent Valley Mills and the Ironbridge Gorge. Utilising qualitative interviews, content analysis, survey data and a virtual ethnography, the study examined the use of digital technologies from the perspective of WHS managers and their audiences. The following section outlines and summarises the original contribution to knowledge that this research has generated.

8.2 ORIGINAL CONTRIBUTION TO KNOWLEDGE

This project has attempted to be the first substantial study to examine the practice and impact of digital technologies in the presentation of industrial UNESCO WHSs. Although elements of the research are applicable to the wider cultural heritage industry, the study deliberately focused on industrial sites. Existing research (Buhalis et al 2006) has provided practical advice to WHSs concerning the adoption of ICTs but this has been somewhat general and explicitly focuses on the needs of WHSs where the property largely consists of a single tangible feature or building, for example the Taj Mahal, rather than sites which are multifaceted and include a plethora of key features and tourist attractions. Through focusing on specific industrial sites, it has been possible to examine the complexities of digital virtualities within a particular context, allowing for management issues, multi-stakeholder

engagement and the applicability of temporal-spatial theories to be considered. The research also looks at the role of OUV and questions its relevance and presentation in virtual, digital spaces.

The study has attempted to address the issue of the under theorisation of digital tourism (Minghetti and Buhalis 2010; Cameron and Kenderdine 2007) by extending and developing temporal-spatial theories in the field of digital cultural heritage tourism. Whereas existing attempts to do this have viewed digital heritage in largely representational terms, this study has looked at the ‘real’ elements of such spaces. To this end, it forms part of an emerging body of work, including contributions by Silberman and Purser (2012), that views the web as a space in which participation and the expression of heritage can take place. It engages with and, to an extent, departs from the existing work in respect of the transformative nature of ICTs within the cultural heritage industry. Indeed, a cautious approach has been advocated throughout this thesis over the extent to which transformation has taken place. Furthermore, this is the first piece of research to examine, in depth, the theory of liminality within the context of digital heritage and digital tourism.

The research has also attempted to identify the range of stakeholders that industrial WHSs have in a digital context. It therefore does not confine itself purely to the experiential tourism element but examines the wider needs and challenges that WHSs face as they attempt to present themselves in a digital space. This approach therefore distinguishes itself from others in the field by examining digital technology in a multidisciplinary context. It looks at the multiple stakeholder interest of WHSs i.e. locals, tourists, the semi-interested, the specialists, the casual visitor and the diasporic visitor as well as looking at the needs of the WHS management organisations. Theoretically, WHSs belong to ‘all the peoples of the world’ and digital technology allows unprecedented access to these sites of OUV. This thesis has explored how these factors interrelate in a digital space.

The following sections summarise the key findings of the research and outline the theoretical stance of this thesis, discussing its implications on the wider literature where appropriate.

8.3 FINDINGS RELATING TO THE CURRENT PROVISION OF DIGITAL CULTURAL HERITAGE TOURISM

Economic objectives and the promotion of the corporeal visit are the key drivers of WHS digital strategy, with educational, interpretative & participatory elements being of secondary importance online.

Through a combination of content analysis of strategy documents, WHS websites and social media pages, it was clear that the managers of the selected WHSs aspire to holistically represent their actual WHSs through a virtual space. The sites attempt to provide a range of online functions related to the wider roles and objectives that WHSs aim to accomplish through their individual WHS Management Plans and their obligations under the 1972 World Heritage Convention. However, the financial, organisational and conservation concerns facing the WHSs in actuality influence the forms that the virtual space takes. The economic regeneration objectives made explicit in each of the selected industrial sites' WHS Management Plans, means that the promotional and tourism elements are prioritised throughout the online practices.

Whilst not a view shared in all sites, the economic and conservation objectives of the WHSs resulted in a reluctance to provide too much interpretative content online, lest people might not visit the site in actuality. Instead efforts have been made to develop on-site bespoke or smartphone application interpretations in order to incentivise or add value to the corporeal visit. Nevertheless, there was an attitude among most of the selected sites, that the website should act as a virtual space for the WHS and be used to holistically interpret the site thematically and as a visitor attraction.

Current digital practice remains underdeveloped and overly representational, reflecting traditional paradigms. This is largely due to shortages in funding, the pressures from wider organisational priorities and a lack of staff time and expertise in digital issues.

Chapter three contained a review of the wider digital practices taking place within the heritage and educational sectors and noted the potential of ICTs to offer new user experiences, new interpretative perspectives, engagement and access to heritage. Nevertheless, the educational, interpretative and remote access to WHSs takes a secondary role within the selected WHS websites as they do not exploit the full potential of digital technologies in presenting the WHS's OUV. Indeed, the WHS online digital offer remains somewhat representational, reflecting traditional paradigms such as leaflets or books rather than encouraging participation or alternative, individualised interpretations of the WHS. Even the promotional material, with some exceptions (e.g. the Cornish Mining personalised brochure), largely reflects a virtual publicity leaflet with little scope for personalisation or interaction. The levels of innovation and experimentation witnessed within the wider tourism industry, for example through social media and e-marketing, is yet to be seen with the selected WHSs on any notable scale. A combination of factors, including a lack of funding, wider organisational priorities and staffing influence what is delivered online. Variations of expertise (either in ICT technical skills, social media literacy or expert knowledge to produce interpretative content) was linked to the direction that a site's digital strategy took.

There was a degree of recognition among the WHSs that their digital strategies were somewhat underdeveloped. Indeed, none of the WHSs was following a specific, up-to-date, digital heritage or tourism strategy. There was goodwill and enthusiasm among all of the WHS managers towards furthering digital opportunities within their respective WHSs but restrictions on staffing, expertise, time and budgets prevent the full realisation of this.

8.4 FINDINGS RELATING TO THE AUDIENCE OF DIGITAL CULTURAL HERITAGE TOURISM

The current offer of digital heritage and tourism provided by the WHSs generally fulfils the basic expectations of the WHS audience.

Research with service users through online survey data and qualitative interviews suggests that, although the WHS websites may not be the most innovative heritage or tourism websites available, they do meet the principal expectation of the audience, namely that practical information is readily available to support the corporeal visit to the WHS. The second-highest priority was the expectation that historical information/interpretative content be included on the websites. This too is provided through the websites, albeit in a basic and traditional format.

The potential for multi-linear, interactive, personalised or immersive virtual experiences was recognised by some elements of the audience but there was no consensus on the forms it should take.

Beyond these somewhat basic expectations, there was a diverse range of ideas and hopes for the future development of digital heritage/tourism. There was a demand for different depths of information and calls for this data to be presented in personalised ways. It was clear that people's needs varied. Whereas some only wanted basic information, others wanted to be able to explore a site or theme in-depth. The potential of ICTs to provide this multi-layered experience was recognised but current practice did not necessarily match the potential.

The virtual audience reflects managerial perceptions of the core element of the actual visitors to the WHS.

The online research with digitally included participants indicated that the virtual audience of digital heritage and tourism largely reflects managerial perceptions of their core audiences who visit in actuality. The data indicated that the audience tended to be aged 45 years and over, well-educated and geographically local in relation to the selected WHSs. A clear majority in this limited sample was female.

Current usage of digital cultural heritage tourism by service users remains passive.

As with the provision of digital heritage tourism by the WHS management, the actual usage of ICTs in heritage-tourism contexts remained somewhat limited and passive, even among the digitally included audience. The audience tended to use websites to seek information or view images, simulacra or representations but did not widely use the web to participate or actively engage with heritage or tourism, especially through the ‘official’ WHS digital platforms. Although not specifically associated with the selected WHSs, notable exceptions to this passive digital behaviour was the use of online resources to create and research family trees. A minority of the participants claimed to be active participants in online heritage communities (not necessarily official WHS pages) but most claimed to only have a passive relationship with the technologies.

On-site digital interpretation and virtual experiences do not form a significant incentive for people to visit an attraction as the historic nature of the site itself is often the key reason to visit.

The passive usage of digital technologies could also be discerned in respect of the use of the technologies during the actual visit to heritage sites. From the digitally included survey sample and the in-depth interviews it was evident that digital interpretation through smartphones and on-site apps has yet to become a common tourist behaviour at WHSs. Only a minority of the digitally-included sample (28.6%) believed that the promise of digital interpretation and displays at a heritage site would make them more likely to visit a destination.

Qualitative responses in both the online research and interviews revealed that people visit heritage sites for the temporal-spatial experience of being in a space that is ‘betwixt and between’ past and present. The processes of imagination, enlightenment, empathy and learning are anticipated and enjoyed. It was generally supposed that elements within heritage sites could provide these experiences without the need to involve digital technologies.

Digital interpretation is best suited to the enhancing the experience of the absent, intangible, or the remote.

The audience could recognise the potential for digital technologies in certain contexts. Through qualitative responses, it was discerned that the digital is best suited to present or interpret the absent. For example, providing remote access to sites through websites or utilising technology to ‘recreate’ a representation of a site as it may have been in a past-time (especially if a feature, streetscape or landscape had since been demolished or redeveloped) were cited as ways in which digital technologies could be used positively. Digital technology was also considered a useful mechanism for the recording and interpretation of intangible cultural heritage, including cultural practices, traditions and the stories and motivations of historical figures. It was emphasised that the content in all digital presentation should be informative, accurate and should engage with the audience.

8.5 FINDINGS CONCERNING ICTS AND THE INTERRELATIONSHIP BETWEEN WHS MANAGERS AND THEIR STAKEHOLDERS

The Web forms a space in which decision-making can take place in respect of a potential visit to a WHS.

The survey data, interviews and virtual ethnography research findings indicate that the use of digital technology has impacted on the relationship between the audience and management of WHSs in numerous ways and to varying extents. It could be seen that the web forms an important space in which opinions and perceptions of a WHS could be formed. It is therefore a space in which decision-making can take place, especially in regard to evaluating whether to visit a destination or not. Potential visitors use a range of websites to research and plan their tourism activities, with review sites such as Trip Advisor being viewed as influential indicators of quality. Although WHSs cannot enjoy a monopoly over the control of online content produced about their destination, it is clear that heritage sites need an active presence online in order to help sustain and promote their work.

The Web provides cost-effective alternatives to the delivery of certain heritage and tourism services, posing challenges to WHS managers.

The ubiquity that the virtual has assumed in the pursuit of tourist information among digitally-included sections of the audience, places considerably pressure on the provision of traditional tourism support services such as tourist information centres. Although the latter are still used and held in high esteem by many, the digital provides a cost-effective alternative especially in the context of public sector spending cuts. The provision of interpretative content online is generally expected by users yet there remains a reticence among the management to make available too much digital content, with some fearing that it could deter actual visits. The research with service users revealed that this could be an issue if the content delivered was too similar to what could be experienced in actuality but if it offered alternative or complementary interpretations and experiences it could inspire or enhance an actual visit.

There is currently little meaningful engagement and interaction between WHS managers and stakeholders utilising social networks.

The web has formed a space in which participation and interaction can take place in a heritage-tourism context. This research, however, indicates that relatively little engagement is taking place between service users and WHS managers through the WHS's 'official' social media pages. Nonetheless, community-led groups have been established associated with WHS areas. A range of discussions, reminiscences, content-sharing and community interaction takes place about historical and contemporary issues concerning the site. Such pages provide historical sources, memories, elements of intangible cultural heritage as well as discussions related to the built-heritage environment. Virtual spaces exist and flourish in which people who are interested in the heritage of their local community are able to communicate and articulate their values. Nevertheless, there is currently scant evidence of WHS managers overtly participating within these virtual communities and engaging with the interested stakeholders therein.

There is little to indicate that WHS managers feel that their position is challenged by heritage interpretations made by people through social networking websites.

This research, in the context of the selected WHSs, questions the assertions put forward by Cameron and Kenderdine (2007), Silberman and Purser (2012) and others regarding the transformation in the nature of the relationship between heritage institutions and their audiences. Whilst the web, particularly social media, permits greater access to heritage by allowing mass participation and alternative interpretation, the virtual discussions on these ‘grassroots’ sites are not intended to be scholarly or professional. The content is largely unrelated to the interpretation that tourists would typically be exposed to. Discussions through online social media groups and pages are not necessarily related to OUV and provide a different function to service users in the respect that they are more akin to a virtual local history group rather than content designed to inform, educate and interpret. There was little to suggest that WHS managers felt that their positions were being threatened by this as presentation of OUV online and offline generally remains with the service providers.

The Web is being used as a space in which WHS management and the practice of cultural heritage tourism can be scrutinised yet there is little evidence of any profound impacts currently being felt by WHS managers in this respect.

The web allows for criticism, recommendations and reviews to be published online thereby enfranchising service users in relation to the site managers. Walsh (1997) questioned whether the heritage sector would embrace or ignore the possibilities afforded by new technologies in terms of participation and interactivity with heritage (p.235). This research indicates that the WHSs have not fully embraced these developments in respect of heritage interpretation and virtual engagement in the management process. This is not necessarily a reaction to a fear of losing their ‘unassailable voice’ of authority, as Walsh (1997, pp.231-235) suggested, but a combination of limitations on staff time to engage with virtual audiences, a lack of strategic vision in respect of digital engagement, and the demands of other organisational imperatives. In respect of online discussions made about how WHSs are managed, there is little or no interaction with WHS managers outside the ‘official’ WHS

pages. Without discussion, engagement and subsequent action, the web, in this context, forms little more than a protest space rather than a space of meaningful co-operation and participation that can bring about actual change. The use of digital technologies therefore is currently only having limited impacts on the relationship between WHSs, their audiences and how the WHS is managed and perceived.

8.6 THEORETICAL IMPLICATIONS

The findings of this research have implications on the theoretical understanding of digital cultural heritage tourism. The concept of liminality, introduced into academia in 1909 by Van Gennep, has been extended into the field of digital heritage and tourism through this research. It is a unifying concept within this thesis and can be used to understand the range of phenomena explored within this study.

This thesis concurs with Turner (1967) and Thomassen (2009) in the respect that in modern societies full liminal experiences have typically been replaced by ‘liminoid moments’, including playful breaks (or even fleeting moments) from normality and involving temporary changes in status (Thomassen 2009, p.15). This study accepts the arguments of Shields (2003) in respect of the web being a liminoid space in which virtual activities can take place (2003, pp.11-13). This research has extended the theory to understand the experience of heritage and tourism in a digital context. The websites set up by WHS managers exist ‘betwixt and between’ the physical space of the WHS and the individual users. It forms a space that allows WHSs a virtual platform for their activities and provide representations of time and space to be explored and viewed, activating ‘spaces of imagination’ within the minds of the user. It provides a space of decision-making and support, permitting a range of virtual tourist planning activities. Although the levels of interaction and immersion vary, the WHS websites and social media pages have the potential to offer a range of experiences to users, including education and interaction.

Heritage sites themselves may be conceived as liminoid as they are ‘betwixt and between’ past and present, forming an ideal space for imagination, fantasy, play, curiosity and education. Elements of this liminoid heritage product may be experienced virtually through the web or digital technologies, allowing remote access, engagement and promotion. The web may form a liminoid space of education in which multiple perspectives, interpretations and scenarios may be explored. The complexities, inventiveness and different levels of immersion, of course, impact on the extent of the liminoid experience.

McWhinney and Markos (2003, pp.25-26) conceived the web as a liminal space in which the individual is removed from every day, ‘normal’ activities. Changes in technology in recent years mean that the virtual web, through mobile technologies in particular, can be integrated within everyday life and is not necessarily separate from it. It remains a liminoid space in the respect that it is intangible, ambiguous and fluid, but does not necessarily have to be a space entirely removed from actuality. ICTs offer a space that can virtually extend the actual and allow other activities to take place but it can remain connected and associated with material space and complement the actual interpersonal relationships and histories within it. They allow for the space of the WHS and its attractions to be ‘stretched’ into the virtual, allowing for greater depths of understanding, support, engagement and qualitatively different experiences. Nevertheless, the liminoid nature of the heritage-tourism experience and the liminoid nature of digital spaces may result in conflicting liminalities whereby the digital may detract from the significance and the sense of place experienced in an historic site. To this end, the digital technologies are more suited to the interpretation or presentation of the absent or the remote.

Whilst Madge and O’Connor (2005) noted that the web can provide a space to support people experiencing liminal stages in their lives, such as the transition to parenthood, it can also be seen that the web can support people in other liminal stages such as learning or discovery about the self, one’s family history or the community in which one lives. Although not as

transformative or life-changing as events such as parenthood, this research has shown that the web, especially social media sites, can be used as a support mechanism and virtual community that that can aid people and create interpersonal bonds in the process of discovering more and engaging within a heritage-site community. Virtual communities therefore create a complementary space in supporting and developing people's understanding of the world around them.

The selected WHSs themselves are undergoing transition as they reinvent themselves as cultural tourism attractions based on their industrial heritage, attempting to capitalise on the perceived social, economic and environmental benefits that WHS status may attract. Stakeholders within the WHSs may use the web as a liminoid space in which statuses and hierarchies are ambiguous. This offers scope for enfranchisement, participation and creativity in a number of areas associated with WHSs including planning, the recording and monitoring of heritage features, public consultation, interpretation, research, reviews of attractions and services, and in fostering understanding and moral ownership of World Heritage.

The theory of liminality gives some understanding of the direction which the cultural heritage industry is progressing in terms of its digital activities. From the research findings outlined above, it appears that the digital transformation of the industry is still ongoing, experimental and piecemeal. It is limited principally by officer time, an absence of strategic planning in respect of digital heritage, and funding constraints.

8.7 POLICY IMPLICATIONS

Thomassen (2009) notes that liminality is 'slowly entering social and political theory' (p.20) and this thesis suggests that the concept of liminality certainly has applicability to the policymaking within digital cultural heritage tourism. Whilst the digital transformation of the heritage tourism industry is currently limited and has thus far had only a modest impact

on the relationship between WHS managers and their audiences, it remains prudent for WHS managers to recognise and utilise the potential of digital technologies and to be aware of and pre-empt potential risks.

The research indicates that WHSs should resist the temptation to invest or develop digital heritage or tourism initiatives out of a perception that they need to ‘keep up with the times’ or that failure to provide digital content will result in the organisation being ‘left behind’. Where investment is made in new technologies, there should be a clear plan of why the initiative is being introduced and a detailed, well-researched understanding of who the audience of that content is. With the digital, the ‘one-size fits all’ approach is inappropriate and content can and should be made that can be personalised or targeted at specific demographic or interest groups within the cultural heritage market. Content and interpretation should continue to utilise a range of media to explore the WHS story. It is important to continue to provide for the digitally-excluded elements of the audience and to recognise that the digital, despite its potential, is not always the most effective way of interpreting a site.

WHSs should follow the practice of other tourism operators (see chapter three) by utilising social media channels to articulate the intangible values associated with the WHS brand. They should present their USPs through digital media in order to tell a story about the WHS, its people and its opportunities. Consideration should be given to making greater attempts to combine digital interpretation with a site’s e-marketing. The sharing of content and liminoid experiences through digital media, particularly social networking websites, may provide creative and engaging methods of raising awareness of the WHS. Such content can be based on the OUV of a WHS and be relevant to the interests of the target audiences, it may involve video, games or interactivity, and should be able to inspire interest and sharing through personal or professional social networks.

To this end, strategies should be developed that consider the role and potential of the digital, taking a holistic view across the functions and roles of the WHSs. With a clearly defined view of what they want to achieve from digital technologies, whether in a promotional, interpretative or participatory context, it should be possible to deliver effective and meaningful projects if or when funding opportunities arise. WHSs, with their educational and social remit, should take a moral responsibility to allow people to learn about the significance of WHS through all available media, including the digital. To do so also helps WHSs, as social institutions, to co-operate and contribute to the social inclusion and domestic digital divide agendas of regional and national governments as outlined in chapter three, helping bring about regeneration.

WHSs should utilise the digital resources currently available to encourage groups and voluntary organisations to learn more about their heritage and increase understanding of the WHS, its attributes and components, as well as the local and national values associated with the site. Such practices would not only upskill people in both heritage and ICT, it may also produce material that can offer new or underdeveloped perspectives on the WHS that may influence management decisions, tourism products and future interpretations. The potential of the web to utilise volunteer effort and ambassadors is one which is greatly underexploited by the WHSs. It is clear from the research that WHSs have communities associated with them, online and offline, who care deeply about how they are managed and presented. Such virtual networks clearly contain interested and knowledgeable people who would be willing to act as virtual ambassadors, to share information, to work remotely on voluntary projects and to provide feedback. The web provides a useful platform for crowdsourcing support for heritage projects in other contexts, therefore there is potential for WHSs to explore such possibilities also.

WHSs should also be mindful of digital activities taking place on national and global level and should seek to work collaboratively, where appropriate, to share resources, content and

ideas in respect of digital cultural heritage tourism. Networking of this nature should go beyond the organisations of the WHS Management Partnerships to ensure wider perspectives and expertise and include universities, other heritage/tourism partners, charities and private sector organisations.

As the digital becomes an increasingly ubiquitous element of people's working lives, cultural and organisational change will need to occur within the heritage tourism industry to take account of changing working patterns. Whilst there will continue to be demand for traditional heritage roles such as conservationists, historians, educationalists, planners and marketing staff, these traditional jobs may need to adapt to embrace digital elements. It was clear throughout the research that high levels of customer service and interpersonal interaction continues to be an important expectation of stakeholders of cultural heritage tourism, therefore attempts should be made to ensure that this level of service is also delivered through digital media.

The strategy review in chapter three noted that digital inclusion programmes place emphasis on ensuring that people are able to retain active citizenship through social-economic and cultural engagement. This research has illustrated the potential to achieve this through cultural heritage. The liminoid space of the web permits people to engage with their cultural heritage, retain links with communities (irrespective of geo-spatial constraints) and also play an active part in influencing and participating in activities associated with that place through a virtual space.

Participatory virtual communities are fragmented according the interests and needs of their users, for example sites such as Trip Advisor may be the sites in which tourists discuss or rate visitor experiences whereas people wishing to actually learn more about the content or history of an attraction or community or to actually communicate with site managers may use the site's official social media pages or groups set up in relation to the host community. The official WHS websites will not and cannot ever have a monopoly on the message and

the virtual audience of the WHS. If WHSs wish to engage with their audiences through digital spaces, they need to be active in seeking out the various communities and networks in which their WHS and interests are being explored and discussed online.

WHS personnel should actively utilise social networks (including those outside their direct control) to engage with interested audiences, to spread awareness and information about WHSs, inspire participation in WHS activities (even on a global scale), address feedback, engage in dialogue and overcome any misconceptions about the WHS and its work. Whilst the ambiguity in status and hierarchies within such liminoid forums may present challenges or an element of discomfort to WHS managers, greater participation by site personnel in this respect may lead to improved engagement and insights that may ultimately benefit the WHS and perceptions of its management.

Caution must be exercised, however. It was clear throughout the research that, even among digitally-included audiences, traditional, non-digital services are still valued. The current climate of public sector spending cuts and government policy encouraging public services to 'go digital' in order to reduce costs, means that public sector financed heritage or tourism services face pressures in this respect and valued services could be lost. Certain heritage and tourism information services can be delivered online in a cost-effective manner, thereby risking jobs and, in some cases, the sustainability of historic buildings (i.e. where traditional services are based within them). Traditional roles need to diversify their offer, incorporating a combination of events, traditional service, digital activities, customer service and 'tangible' interpretation and facilities, in order to ensure what is offered remains distinct from what is delivered virtually.

8.8 LIMITATIONS AND POTENTIAL FOR FUTURE RESEARCH

8.8.1 Limitations

The study has deliberately focused on a specific element of the cultural heritage industry. It acknowledges that the heritage industry and indeed the tourism industry are heterogeneous and each site has its own challenges and special requirements. These findings are most pertinent to the industrial UNESCO WHSs rather than the industry as a whole, although it is likely that some of the theories developed would have relevance beyond a WHS context.

The research does not attempt to make a critique of the merits of specific or individual technologies. Where reference is made to technologies such as Quick Response codes or augmented reality, it does so where formal or informal strategies have introduced them to the sites. It does, however, take a top-level theoretical approach to understand and theorise the spaces which these technologies form. It consequently does not look at the ergonomics of specific technologies or issues concerning levels of ‘user-friendliness’ and design.

The research focuses exclusively on the digital presentation of WHSs rather than the conservation or protection of WHSs. Digital technology can play important parts in delivering the other elements of the World Heritage Convention but to ensure that this thesis was not superficial the presentational aspects, namely promotion, interpretation and stakeholder engagement were prioritised. This also ensured that enough breadth was retained to fulfil the obligations to the project partner, the Blaenavon WHS who called for research in these areas.

8.8.2 Potential Future Research in the Field

The research looks across the various market segments that WHSs attempt to target. This was done so to meet obligations to the project partner and to avoid having too narrow an approach. Nevertheless, follow up research could examine specific elements of the audience, such as families or educational markets. Research could be carried out to examine the role

of liminoid experiences utilising digital heritage in educational visits and how children relate to heritage sites through digital technology. This would offer an opportunity to compare the findings with the older age groups, who currently comprise the digital audience of cultural heritage.

This research has also noted that men and women may be using digital heritage and tourism in different ways. The results were derived from a relatively small sample but a further research project could examine the role of gender in respect of digital heritage and tourism. Such research could also be designed to have benefits to the cultural heritage industry in the respect that future apps or digital experiences could be designed and tailored to meet the needs of particular demographic or interest groups.

The focus of the research, namely digital culture heritage in respect of UNESCO WHSs is still in its relative infancy. As of 2013-14, when the fieldwork research for this study was undertaken, the selected WHSs were only starting to make their initial ventures into on-site, mobile digital interpretation. It is anticipated that this period of experimentation and investment will continue as new technologies become available or more affordable. The findings of this research therefore provides a 'snapshot' of the cultural heritage industry as it attempts to find its place in the 'digital world'. If a similar research methodology were to be undertaken in the future, it would be possible to determine the extent to which WHS digital strategies and audience expectations will have developed in a wider culture in which digital technologies and virtualities are becoming a ubiquitous element of daily life. Such a replication of the research, would also make it possible to determine whether the industry moves towards providing deeper liminoid experiences.

The research found that large numbers of people in their late 40s and 50s are now utilising the web for cultural heritage purposes. It would be worth considering the implications that participation in these online liminoid activities will have when people, now in middle age, reach old age or frailty, and how engagement with digital heritage can afford them greater

levels of social inclusion, participation, enfranchisement and personal wellbeing in a period of perpetual liminality in their lives (Nicholson et al 2012). To this end, research could also be conducted with (digitally included) older people today, to determine the impact, if any, of online digital heritage on their daily lives.

8.9 CONCLUSION

Cultural heritage tourism is a temporal-spatial industry whose product is the liminoid experience of being taken out of the everyday into an educational, engaging or entertaining space that is ‘betwixt and between’ past and present. The global developments in ICTs have posed challenges and opportunities for a range of businesses and services, including the heritage industry. In the case of UK industrial WHSs, attempts have been made to adopt digital technologies in order to present the OUV of the WHS as a visitor destination and educational resource. Strategically, the actions taken thus far have tended to be planned without any specific overarching digital presentation strategy and have been implemented when funding has become available. The websites tend to be predominantly representational, replicating the traditional media, and are geared primarily towards encouraging corporeal visits. Similarly, the social media functions that have been used by the WHSs have largely been used to promote various events and services taking place at the WHS sites’ various attractions but discussions, interactions and followers remain comparatively limited. Therefore, industrial WHSs are currently not exploiting the potential of digital technologies in their presentation. The digitally-included service users of industrial heritage, however, similarly use digital technology in a passive way, perhaps partly because of the lack of participatory and engaging opportunities within the cultural heritage organisations’ online offer.

There is an increased emphasis on allying the corporeal visit with virtual elements, potentially offering liminoid experiences but the current practice remains low, even among the digitally-included audience who utilised digital technology for heritage-related purposes.

Whether the cultural heritage industry will truly transform to fully incorporate digital technology remains to be seen but there is certainly potential for digital technologies to be used to enhance and create new visitor experiences both on-site and remotely. However, it will probably be another generation or so before the impacts are truly felt. Time will be an important factor; this study can serve as a baseline and future studies, perhaps a decade from now, can evaluate the digital trends that are taking place within the industry. In terms of cultural heritage tourism, its impact is currently limited within the UK's industrial WHSs but there is certainly rich potential for this to be further developed.

APPENDIX A

Draft Interview Schedule

Strategy / Marketing Officers

	Question	Purpose of the Question
1	Does your site follow a formal strategy for digital heritage tourism? If Y go to 3 If N go to 2	This will determine the extent to which digital issues are incorporated into the policy-making and strategies of industrial UNESCO WHSs. A positive response will indicate that digital heritage/tourism is considered to be an important aspect of a WHS's offer whereas a negative response would suggest that, although a website is in use, the full strategic uses of digital technology have not been recognised by a WHS.
2	Are there any reasons why your site does not currently have a digital strategy?	This will provide a justification by the WHS for why they have not developed an official strategy for digital heritage/tourism
3	In what ways is your WHS currently using digital technologies?	This will reveal the current practice of the WHS digital heritage/tourism, as understood by site co-ordinators. It will allow for an understanding of how virtual space is viewed and how it is being used by WHSs
4	What do you hope to achieve by using digital heritage/tourism?	This will assess the strategic applications of ICT within a WHS. This will be compared with themes identified within strategy documents and will be conceptualised in temporal-spatial terms. E.g. is the focus on intangible spaces of imagination and representation or is the focus on changing material spaces?
5	Which of these objectives do you see as your main priority?	This will provide an explicit statement of the WHSs' priorities. This may be compared between sites to see if priorities vary between sites and whether the digital tourism practice varies as a consequence.
6	Is your approach to digital heritage/tourism influenced by wider strategies?	This will assess the relevance of global, national and regional policy to decision making within a WHS i.e. are services targeted at a local or national audience or is there a wider, global approach being taken?
7	Who do you believe the main markets are for your WHS?	This will provide an understanding of the WHS's perspective on who its key audiences are. This can then be compared with the statistics captured through service-user questionnaires.
8	To which audiences is your digital heritage/tourism targeted?	This will reveal whether managers are considering the needs of different audience demographics when providing digital heritage tourism
9	What do you think the audience expect from your website and digital tourism provision?	This will reveal managers' perspectives on user expectations. Once compared with service-user surveys it will be possible to evaluate expectation.
10	Do you consider your current digital activity as being successful in achieving both your managerial aims and in meeting the expectations of your audience? Why?	This will reveal subjective standards of success for WHSs. The success can be measured by making comparisons with the experiences and opinions of service users
11	In what ways, if any, do you feel that your relationship with your customers has changed due to digital technologies? If so, go to 12	This will evaluate social and economic changes that have resulted from the dissemination of ICTs. This will take a micro-economic approach to see how the changes have impacted on the cultural heritage industry.

	If no, go to 13	
12	Do you view these changes as positive or negative?	This will investigate cultural and institutional attitudes towards ICT. Is it welcomed or is it feared?
13	In what ways, if any, do you feel that digital technology has changed the way in which your WHS is managed, interpreted, marketed and promoted?	This will investigate changing work practices that may have taken place as a consequence of the use of digital technology.
14	How much investment is made by the WHS in digital heritage tourism in terms of funding and staffing?	This will help quantify levels of funding into digital projects and whether staffing arrangements are in place to deal with digital issues.
15	What challenges and opportunities do you think your WHS will face due to ICTs in the future?	This will provide an indication of how WHS managers feel ICT will impact on their work in the long term. This may provide information relating to a long term strategic vision.

Education and Interpretation Officers

1	In what ways is your WHS currently using digital technology to interpret its outstanding universal value (both online and onsite)?	This will reveal the current practice of the WHS digital heritage/tourism, as understood by site co-ordinators. It will allow for an understanding of how virtual space is viewed and how it is being used by WHSs
2	What do you hope to achieve by using digital heritage/tourism?	This will assess the strategic applications of ICT within a WHS. This will be compared with themes identified within strategy documents and will be conceptualised in temporal-spatial terms. E.g. is the focus on intangible spaces of imagination and representation or is the focus on changing material spaces?
3	Which of these objectives do you see as your main priority?	This will provide an explicit statement of the WHSs priority. This may be compared between sites to see if priorities vary between sites and whether the digital tourism practice varies as a consequence.
4	Is your approach to digital heritage/tourism influenced by wider strategies such as national government policy, European Union policy & United Nations policy or is it based largely on local needs?	This will assess the relevance of global, national and regional policy to decision making within a WHS i.e. are services targeted at a local or national audience or is there a wider, global approach being taken?
5	Who do you believe the main markets are for your WHS?	This will provide an understanding of the WHS's perspective on who its key audiences are. This can then be compared with the statistics captured through service-user questionnaires.
6	To which audiences is your digital heritage/tourism targeted?	This will reveal whether managers are considering the needs of different audience demographics when providing digital heritage tourism
7	What do you think the audience expect from your website and digital tourism provision?	This will reveal managers' perspectives on user expectations. Once compared with service-user surveys it will be possible to evaluate expectation.
8	How much emphasis is placed on the intangible values in the interpretation of your WHS in comparison to tangible values?	This will help form an understanding of what sorts of heritage are being interpreted. The types of which may influence digital strategy

9	Do you believe ICT can aid interpretation of intangible values?	Intangible heritage is linked to spaces of representation and spaces of imagination
10	To what extent do you feel that it is important for the audience of your WHS to participate in its interpretation?	This links into policy initiatives aimed at enfranchising people. This will assess whether WHSs are keen to allow for participation in interpretation – therefore is practice consistent with policy?
11	Is this something which is happening at your WHS and is ICT being used to facilitate this?	As above
12	In what ways, if any, do you feel that your relationship with your customers has changed due to digital technologies? If so, go to 13 If no, go to 14	This will evaluate social and economic changes that have resulted from the dissemination of ICTs. This will take a micro-economic approach to see how the changes have impacted on the cultural heritage industry.
13	Do you view these changes as positive or negative?	This will investigate cultural and institutional attitudes towards ICT. Is it welcomed or is it feared?
14	How successful do you believe your WHS's digital approach is in achieving its managerial objectives and meeting the audience's needs?	This will reveal subjective standards of success for WHSs. The success can be measured by making comparisons with the experiences and opinions of service users.
15	What challenges and opportunities do you think your WHS will face due to ICTs in the future?	This will provide an indication of how WHS managers feel ICT will impact on their work in the long term. This may provide information relating to a long term strategic vision.

APPENDIX B

Draft Information Sheet for Research Conducted through Interview

Global Digital Tourism: UNESCO WHSs – PhD Research Project

About the Project

The purpose of this project is to examine the practice and impacts of digital tourism in four industrial UNESCO WHSs:

- Blaenavon Industrial Landscape - www.visitblaenavon.co.uk
- Cornwall and West Devon Mining Landscape - www.cornish-mining.org.uk
- Derwent Valley Mills - www.derwentvalleymills.org
- Ironbridge Gorge - www.ironbridge.org.uk

Purpose of Interviews

Research is taking place with WHS managers and tourists to explore how WHSs currently use digital technology, what their aspirations are for the future and how such technology can be developed for the benefit of WHSs and their visitors. The study aims to highlight what visitors expect from digital tourism and will attempt to identify best practice between the sites and to see how sites can work together to improve the visitor experience.

Supervision

The study is being carried out under the auspices of the University of Wales Newport. It is being supervised by Professor Raymond Howell, Director of the South Wales Institute for Historical and Interdisciplinary Research.

Email: ray.howell@newport.ac.uk

Funding

The research has been made possible by the European Social Fund (ESF) through the European Union's Convergence programme administered by the Welsh Government.

Contact

For more information about the project, please contact Nathan Matthews, PhD Research Student, on 01495 742333/01495 79XXXX or email nathan.matthews@students.newport.ac.uk



Ysgoloriaethau Sgiliau Economi Gwybodaeth
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APPENDIX C

Global Digital Tourism: UNESCO WHSs

Draft Researcher and Participant Agreement Form

Anonymity

The researcher guarantees that no names, addresses or job titles will be included in the final report without the explicit written consent of the participant. This will help ensure that what is said during interview cannot be traced back to individuals by third parties.

Confidentiality

The researcher guarantees that information obtained through interview will not be passed on to third parties, unless explicit written permission has been granted.

Updates

The researcher agrees to keep participants informed about the progress of the project, if requested. If, at any stage, the participants wish to comment on the emerging results, they may do so. The researcher will consider such comments and make any alterations, if appropriate.

Funding

The project has been made possible by the European Social Fund (ESF) through the European Union's Convergence programme, administered by the Welsh Government. The research is being carried out under the auspices of the University of Wales Newport.

The Final Report

A copy of the final report will be sent to the University library and (subject to University/funding requirements) will be sent to any participant requesting a copy.

Data Protection

The researcher will comply with the requirements of the Data Protection Act 1998.

Signed: _____ Date: _____

Nathan Matthews, PhD Student, University of Wales Newport



Ysgoloriaethau Sgiliau Economi Gwybodaeth
Knowledge Economy Skills Scholarships



Consent Form

By signing this form I confirm that I have been made aware of the purposes of the research.

I agree to be interviewed and recorded.

I agree for the information provided by me to be used by the researcher for the purposes of the Digital Global Tourism: UNESCO WHSs PhD research project.

I agree to be personally identified within the report

I wish to contribute to the research but wish to remain anonymous

Signed: _____ Date: _____

Name (if consent given)	
Job Title (if consent given)	
Age (optional)	
Gender (optional)	

APPENDIX D

Strategies and Policy Documents Analysed through the Strategy Review (Chapter Three)

Policy Level	Relevant Policy/Strategy Documents
Global	<p>UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION. 1972. <i>Convention Concerning the Protection of the World Cultural and Natural Heritage</i>. Paris: UNESCO.</p> <p>UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION. 2001. <i>Declaration on Cultural Diversity</i>. Paris: UNESCO.</p> <p>UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION. 2002. <i>World Heritage in Young Hand: An Educational Resource Kit for Teachers</i>. Paris: UNESCO.</p> <p>UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION. undated. <i>World Heritage Centre</i>, [WWW]. http://whc.unesco.org/. (20 February 2012).</p> <p>UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANISATION 2011. <i>Multilingualism on the Internet</i>. [WWW]. http://www.unesco.org/new/index.php?id=50219. (15 May 2014).</p> <p>ICOMOS INTERNATIONAL. 2012. Resolutions of the 17th ICOMOS General Assembly, 27 November to 2 December 2011, Paris, France. <i>ICOMOS News</i>. 19(1).</p>
Regional	<p>EUROPEAN COMMISSION. 2010. <i>A Digital Agenda For Europe</i>. [WWW] European Union. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF (9 December 2011)</p>
National	<p>CABINET OFFICE. 2010. 'Digital by default proposed for government services'. [WWW] https://www.gov.uk/government/news/digital-by-default-proposed-for-government-services. (14 Feb 2014)</p> <p>CABINET OFFICE. 2012. <i>Government Digital Strategy</i>. [WWW] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296336/Government_Digital_Strategy_-_November_2012.pdf (28 Feb 2014).</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 1999. <i>World Heritage Sites: The Tentative List of the United Kingdom of Great Britain and Northern Ireland</i>. London: Department of Culture, Media and Sport.</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2009. <i>Digital Britain: A Final Report</i>. London: Department for Culture, Media and Sport. Available at: <http://www.official-documents.gov.uk/document/cm76/7650/7650.pdf> (15 November 2011)</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2011. <i>Government Tourism Policy</i>. London: Department for Culture, Media and Sport. Available at <http://www.culture.gov.uk/images/publications/Government2_Tourism_Policy_2011.pdf> (15 November 2011).</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2012. <i>DCMS Digital Strategy: Becoming Digital By Default</i>. London: DCMS. Available at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/78060/DCMS_Digital_Strategy.pdf> (accessed 19 Feb 2014)</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2013. <i>Connectivity, Content and Consumers: Britain's Digital Platform for Growth</i>. London: DCMS. Available at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/225783/Connectivity_Content_and_Consumers_2013.pdf> (accessed 14 Feb 2014)</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2013b. Stimulating private sector investment to achieve a transformation in broadband in the UK by 2015. [WWW] https://www.gov.uk/government/policies/transforming-uk-broadband. (dated 27 Feb 2013)</p> <p>DEPARTMENT FOR CULTURE, MEDIA AND SPORT. 2014. <i>The UK Spectrum Strategy: Delivering the best value from spectrum for the UK</i>. London: DCMS. Available at <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287994/UK_Spectrum_Strategy_FINAL.pdf> (accessed 10 Mar 2014)</p>
Sub-national	<p>COMMUNITIES 2.0. undated. <i>Communities 2.0. and digital inclusion</i>. [WWW]. http://www.communities2point0.org.uk/communities-20-and-digital-inclusion. (12 Jan 2014).</p>

	<p>WELSH ASSEMBLY GOVERNMENT. 2003. <i>Cultural Tourism Strategy for Wales</i>. [WWW] Cardiff: Welsh Assembly Government. http://wales.gov.uk/depc/publications/tourism/aboutvisitwales/stratpol/culturaltourism1/cultural-tourism-strat-wales-eng?lang=en. (28 October 2011).</p> <p>WELSH ASSEMBLY GOVERNMENT, 2006. <i>'Turning Heads': A Strategy for the Heads of the Valleys 2020</i>. Cardiff: Welsh Assembly Government.</p> <p>WELSH ASSEMBLY GOVERNMENT, 2007. <i>Sustainable Tourism: A Framework for Wales</i>. [online] Welsh Assembly Government. Available at: <http://wales.gov.uk/depc/publications/tourism/aboutvisitwales/stratpol/sustainabletourism/sustainable-tourism-eng?lang=en> (28 October 2011).</p> <p>WELSH ASSEMBLY GOVERNMENT. 2010. <i>Delivering a Digital Wales: The Welsh Government's Outline Framework for Action</i>. [online] Welsh Assembly Government. Available at: <http://wales.gov.uk/docs/det/publications/101208digitalwalesen.pdf> (9 December 2011)</p> <p>WELSH GOVERNMENT. 2012. <i>The story so far... An overview of the Pan-Wales Heritage Interpretation Plan</i>. Welsh Government. [WWW]. http://cadw.wales.gov.uk/docs/cadw/publications/Pan_Wales_OverviewENGLISH.pdf. (23 February 2014).</p> <p>WELSH GOVERNMENT. 2013a. <i>Digital Inclusion</i>. [WWW]. http://wales.gov.uk/topics/people-and-communities/regeneration/digincl/?lang=en. (12 Jan 2014)</p> <p>WELSH GOVERNMENT. 2013b. <i>Welsh Language Technology and Digital Media Action Plan</i>. [WWW] Welsh Government. http://wales.gov.uk/docs/dcells/publications/230513-action-plan-en.pdf. (23 February 2014).</p> <p>WELSH GOVERNMENT. 2014. <i>Digital Development Fund</i>. Welsh Government. [WWW]. http://business.wales.gov.uk/digital-development-fund. (13 August 2014).</p>
Local	<p>TORFAEN COUNTY BOROUGH COUNCIL. 2010. <i>Torfaen: The Digital Valley</i>. Pontypool: Torfaen County Borough Council.</p> <p>TORFAEN COUNTY BOROUGH COUNCIL. 2011. <i>Draft Heritage Strategy</i>. Pontypool: Torfaen County Borough Council.</p> <p>MONMOUTHSHIRE COUNTY COUNCIL. 2009. <i>Draft for Consultation: Tourism Strategy 2010-2014</i>. Cwmbran: Monmouthshire County Council.</p> <p>MONMOUTHSHIRE COUNTY COUNCIL, 2011. <i>Discussion Paper – the Future of Monmouthshire's Tourist Information Centres</i>. Cwmbran: Monmouthshire County Council.</p>
Industry	<p>DTTT. undated (a). <i>Norway's Digital Marketing Strategy</i>. [WWW]. http://thinkdigital.travel/spotlights/norway-2/. (12 May 2014).</p> <p>DTTT. undated (b). <i>Stockholm Sounds</i>. [WWW]. http://thinkdigital.travel/spotlights/stockholm-sounds/. (12 May 2014).</p> <p>DTTT. undated (c). <i>Visit Belfast's New Visitor Centre</i>. [WWW]. http://thinkdigital.travel/spotlights/belfast-welcome-centre/. (12 May 2014).</p> <p>DTTT. undated (d). <i>Colombia: Bold Digital Strategy + People Power</i>. [WWW]. http://thinkdigital.travel/spotlights/colombia/. (12 May 2014).</p> <p>DTTT. undated (e). <i>Bologna: What is Social Media Free Trip?</i> [WWW]. http://thinkdigital.travel/spotlights/bologna/. (12 May 2014).</p> <p>DTTT. undated (f). <i>Backin' Belfast</i>. [WWW]. http://thinkdigital.travel/spotlights/visit-belfast/. (12 May 2014).</p> <p>DTTT. undated (g). <i>Myrtle Beach</i>. [WWW]. http://thinkdigital.travel/spotlights/myrtle-beach/. (12 May 2014).</p> <p>DTTT. undated (h). <i>The Guam Experience</i>. [WWW]. http://thinkdigital.travel/spotlights/guam/. (12 May 2014).</p> <p>DTTT. undated (i). <i>Brasil: World Cup ready digital marketing strategy</i>. [WWW]. http://thinkdigital.travel/spotlights/brasil/. (12 May 2014).</p> <p>DTTT. undated (j). <i>Visit Sørlandet's Digital Strategy</i>. [WWW]. http://thinkdigital.travel/spotlights/sorlandet/. (12 May 2014).</p> <p>DTTT. undated (k). <i>Switzerland: Social Media and eMarketing Strategy</i>. [WWW]. http://thinkdigital.travel/spotlights/switzerland/. (12 May 2014).</p> <p>DTTT. undated (l). <i>Ireland's New Website</i>. [WWW]. http://thinkdigital.travel/spotlights/ireland/. (12 May 2014).</p> <p>DTTT. undated (m). <i>Destination Lapland</i>. [WWW]. http://thinkdigital.travel/spotlights/lapland/. (12 May 2014).</p>

	<p>DTTT. undated (n). <i>Åre: Sustainable Destination Marketing</i>. [WWW]. http://thinkdigital.travel/spotlights/are/. (12 May 2014).</p> <p>DTTT. undated (o). <i>Cape Town: Digital Personalisation of a Destination</i>. [WWW]. http://thinkdigital.travel/spotlights/cape-town/. (12 May 2014).</p> <p>DTTT. undated (p). <i>Vienna: Social Media Newsroom</i>. [WWW]. http://thinkdigital.travel/spotlights/vienna/. (12 May 2014).</p> <p>DTTT. undated (q). <i>Flanders is a Festival</i>. [WWW]. http://thinkdigital.travel/spotlights/flanders/. (12 May 2014).</p> <p>DTTT. undated (r). <i>Visit Sweden's Digital Strategy</i>. [WWW]. http://thinkdigital.travel/spotlights/sweden/. (12 May 2014).</p> <p>DTTT. undated (s). <i>Greenland: Web design and branding</i>. [WWW]. http://thinkdigital.travel/spotlights/greenland/. (12 May 2014).</p> <p>DTTT. undated (t). <i>South Africa: Digital Strategy and Branding</i>. [WWW]. http://thinkdigital.travel/spotlights/southafrica/. (12 May 2014).</p> <p>DTTT. undated (u). <i>Catalunya: From Blogtrip to Instagramtrip</i>. [WWW]. http://thinkdigital.travel/spotlights/catalunya/. (12 May 2014).</p>
Industry	<p>AMGUEDDFA CYMRU-NATIONAL MUSEUM WALES. undated. <i>Vision Map 2013-2016: New Media Solutions</i>. [WWW]. http://www.museumwales.ac.uk/2406/. (24 February 2014.)</p> <p>FLOW ASSOCIATES and THE COLLECTIONS TRUST 2010. <i>Mapping the Use of Digital Technologies in the Heritage Sector</i>. Heritage Lottery Fund. [WWW]. http://www.hlf.org.uk/aboutus/howwework/Documents/HLF_digital_review.pdf</p> <p>BBC NEWS. 2014. Merthyr Tydfil's iron heritage told in 3D app. <i>BBC News Online</i>. [WWW]. http://www.bbc.co.uk/news/uk-wales-south-east-wales-27591322. (28 May 2014).</p> <p>BRITISH LIBRARY. undated. <i>About the British Newspaper Archive</i>. [WWW]. http://www.britishnewspaperarchive.co.uk/help/about. (3 June 2014)</p> <p>NATIONAL LIBRARY OF WALES. undated. <i>Welsh Newspapers Online</i>. [WWW]. http://www.llgc.org.uk/index.php?id=4723. (3 June 2014).</p>

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