Digital technologies in museums: New routes to engagement and participation

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A multimodal semiotic approach is applied in this chapter to three examples to illustrate how the use of digital technology in museums and galleries can re-mediated the visitor experience (Jewitt, 2009; Kress, 2009). The examples are selected to expand upon the themes raised in Chapter X. They each explore different technologies, contexts and purposes and to illustrate the successful use of digital technology in exhibitions, galleries, or interventions: 1. You Tube and Flickr: The Weather Project by Olafur Eliasson at the Tate Modern Museum; 2. Interactive artefacts, virtual tours and Websites: The Winston Churchill Museum; 3. Mobile Technologies: OOLK at the D-Day museum

The examples draw on a range of research data, observations of the exhibition and visitor interaction, literature, news and media commentary related to the exhibit including curator interviews, and official and unofficial online data connected to the exhibits. A multimodal approach is used to explore these three examples as it enables systematic attention to meaning and the way in which curators and visitors use modes to represent the world, enable visitors to engage with objects and one another in ways that go well beyond language, and the shaping of ‘knowledge’ and experience. It examines interaction the social interpretation of the museum or gallery exhibits beyond language. Specifically the chapter will examine the range of multimodal resources used in the museum and gallery and how it contributes to meaning. It will show how the modes used are shaped through their social, cultural, and historical usage and the distinct communicative work each mode takes thus making clear how the choice of mode a central aspect of interaction and meaning in the gallery and museum context. How visitors orchestrate

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meaning through their selection and configuration of modes, foregrounding the significance of the interaction between modes in the production of meaning is also discussed. The three illustrative examples presented in this chapter draw on specific exhibits to address the following questions:

• How can the use of digital technology in museum or gallery create interactive experiences for the visitor? Interactivity as a concept is explored across the case studies to investigate the range of interactive experiences designed for (and by) the visitor.

• In what ways does technology afford new routes to Engagement and participation with an exhibit or museum/gallery? The case studies highlight some of the opportunities in the ways that technology can be used to create and support forms of dialogic exchange and participation. The multimodal character of these routes of engagement, as bodily physical experiences, emotional and intellectual experiences, or experiences that build on the visitors’ imagination, or lived memories is discussed.

• How can digital technology impact on opportunities for visitor interpretation or understanding of exhibits and experiences? The case studies draw attention to some of the ways that the use of digital technology can shape the processes of interpretation and understanding. In particular the ways in which technology can affect the authoritative character of the official knowledge of the museum or gallery. The value and status of visitor knowledge, the potential authority of visitor interpretations, in the contemporary digital spaces is also explored. The enhanced or changed opportunities for visitor interpretation and the potential impact of this on how people engage and understand are discussed. How these shape authoring and publishing relationships and re-mediate the relationship between an audience and an exhibit or artefact is also discussed across the case studies.

**EXAMPLE 1**
**YOU TUBE AND FLICKR: THE WEATHER PROJECT BY OLAFUR ELIASSON AT THE TATE MODERN MUSEUM, LONDON, UK**
This example outlines the use of digital technology in the gallery exhibit to create interactive experiences for the visitor, and describes the character
and form of these experiences. It explores how digital technology impacts on opportunities for visitor interpretation or understanding of the exhibits and experiences of the museum. More specifically, it illustrates how technology affords new routes to interpretation, engagement and participation with an exhibit. It focuses on the physical response of visitors to the exhibit alongside visitor photography and video recording, and the connections between the gallery and the Internet. The example is used to explore the opportunities that the exhibit (and gallery) supported for forms of dialogic exchange and participation and the potential of digital technology to affect the authoritative character of official museum or gallery and visitor knowledge.

The weather project was installed in the Turbine Hall, at the London’s Tate Modern in 2003-2004 as part of the popular Unilever series. The installation consisted of three main elements: a large electronic sun positioned at the far end of the Turbine Hall; mirror cladding suspended from the high gallery ceiling, and mist produced by a series of humidifiers. Perhaps a fourth element of the installation is the space of the Turbine Hall itself and the ways in which this was left empty and used by gallery visitors. The installation reportedly attracted two million visitors, many of who were repeat visitors (Helfand, 2007) and it has a significant continued presence on Flickr and YouTube, both of which are discussed below.

Eliasson took the subject of the weather, a cross-cultural subject with particular resonance in English culture as the basis for exploring experience, mediation and representation in this piece of work. A subject that he referred to as a ‘flat subject’, that is, something that people have in common, part of everyday conversation, and ‘one of the few fundamental encounters with nature that can still be experienced in the city’ (Willsdon, 2004). The weather is characterized by constant change and unpredictability, bound up with time and space – a phenomenon that is beyond the control of people. The Tate website links this contemporary work to the past by quoting the eighteenth-century writer Samuel Johnson, ‘It is commonly observed, that when two Englishmen meet, their first talk is of the weather; they are in haste to tell each other, what each must already know, that it is hot or cold, bright or cloudy, windy or calm.’ Thus making a link between ideas of British identity and community, the enduring timeless character of ‘nature’ and
the technologized reshaping of nature within the city.

The topic of the project speaks to Eliasson’s desire to make ethical democratic art and foster critical debate and a ‘fundamental belief in a certain type of democracy’, ‘civic participation’ and the need to overcome the elitism of the art world. Curator Susan May writes: “The constituent elements of the weather – water, light, temperature, pressure – are the materials that Olafur Eliasson has deployed throughout his career’ (May, 2003).

**THE USE OF DIGITAL TECHNOLOGY TO CREATE INTERACTIVE EXPERIENCES FOR THE VISITOR**

The installation used a range of technologies to produce weather effects that changed throughout the day against the backdrop of a huge sun made of lights. Humidifiers were used to create a fine mist in the air using a mixture of sugar and water, and the ceiling of the hall was covered with a huge mirror.

“A fine mist permeates the space, as if creeping in from the environment outside. Throughout the day, the mist accumulates into faint, cloud-like formations, before dissipating across the space. A glance overhead, to see where the mist might escape, reveals that the ceiling of the Turbine Hall has disappeared, replaced by a reflection of the space below. At the far end of the hall is a giant semi-circular form made up of hundreds of mono-frequency lamps. Generally used in street lighting, mono-frequency lamps emit light at such a narrow frequency that colours other than yellow and black are invisible, thus transforming the visual field around the sun into a vast duotone landscape.” (www.tate.org.uk)

The piece is designed to expose the technologies that create these ‘transcendent experiences’ by a showing the viewer the pumps, piping and lamps involved in the work, and purposefully revealing the false ceiling and the wiring. The purpose of this is to show the staged construction of the representation of nature: enabling the visitor to walk behind the ‘sun’. By exposing the structure and apparatus delivering the installation Eliasson hopes to ‘enable the viewer to understand the experience itself as a construction and so, to a higher extent, allow them to question and evaluate the impact this experience has on them.’ The focus of this experience was for many visitors related to the body in time and space.
The body in time and space provided a starting point for the project in ‘the idea of going into the picture’. The bodily experience was key to the installation and his desire to make an experience that bridged ideas of a separation of mind and body. The artist comments that “The movement through the piece is a kind of thinking, and the thinking is also a kind of movement”. Eliasson worked with the history of the gallery space, interviewing staff at the Tate and the Tate architects, and its relationship to the city of London, and the river Thames. He observed how people come and go across the river, and the sequences of movements in and out of the turbine hall. He emphasizes the viewer’s passage through or across space. May suggests that, “By interrupting steady and unconscious movement with unexpected topography, he engenders a heightened awareness of the body’s actions” (May, 2003, p. 19). According to May, the body is key to the installation and the construction of the spatial and temporal world in which it is located, she cites Eliasson as saying ‘my body is the fabric into which all objects are woven, and it is, at least in relation to the perceived world, the general instrument of my “comprehension”’ (May, 2003, p. 14). She goes on to comment on the importance of the viewer’s body, along with his or her perception, position and orientation in Eliasson’s work through which he encourages viewers to ‘question their sense of their surroundings’.

**NEW ROUTES TO ENGAGEMENT AND PARTICIPATION WITH THE EXHIBIT AND THE GALLERY.**

Eliasson has commented, ‘I am not the producer of the spectacle around the piece’ (interview, Tate). The curator of the exhibit wrote that, ‘The viewer’s response to the work – his or her experience and perception of it – is the work, in his view.’ (May, 2003, p. 19). A view echoed by Dorment, an art critic, “What the artist began, the audience completes. It is the visitors that make The Weather Project unforgettable” (Dorment, 2003).

The use of digital cameras and video recorders, often in the form of mobile phones, is not often afforded to visitors of galleries and museums, who are regularly told (via guards and notices) not to photograph the artwork. The possibility of a visual and multimodal response to the project created a new digital space for engagement and participation. This participation reshapes the original piece of work: it is recorded at the same time as it
is transformed. The visitor production of video and photographs of the project shift a collective gallery bound experience into an individual visitor everyday experience. This is then itself remade through its reinsertion into collective online communities some of which are focused on tourism and family rather than art.

Technology has supported forms of dialogic exchange and participation online through the discussion of the art work, and perhaps more importantly the experience of the art work, as well as the sharing of visual and video representations of these. Visitors have collectively created an online spectacle and an archive of visual and audio-visual responses via Flickr pools and You Tube threads and links. This media convergence is supported by the Tate gallery official video of the Weather Project on the Tate’s You Tube Channel. This enables the online visitor to engage with photographs of other installation works by Eliasson. The Weather project becomes the starting point for a different engagement with the work, in which the theme of work and participation is explored. This engages people via digital photography and social networking with the work. It also engages people with one another rather than the work, often via narratives that focus on the experience of visiting the gallery or London or their memories of the sun and so on.

The use of technology as described above expands the communicative reach of the exhibition from the gallery and the immediate experience of the work, to the Internet. It supports forms of dialogic exchange and participation between visitors and remediates the relationship between the audience and the artwork. Visitors’ individual situated (and therefore different) dialogues with the artwork are made visible to others online. The visitor as an authentic witness remediates the artwork, or the experience of it.

The impact of digital technology on opportunities for visitor interpretation or understanding of exhibits and experiences

Eliasson dismisses the singular point of view of the artist and invites the visitor to reflect on their experiences and deconstruct the installation: to make sense of it. Saying he is “not so interested in the actual art work so
much more interested in the relationships people have with it rather than being normative or designing people’s individual interpretations.

The opportunity to respond bodily to the work was central to the interactive visitor experience in the gallery. The design of the piece facilitated the visitor inhabiting the work and ‘called forth’ their physical response to it. Many visitors interpreted the piece physically. They played, lay on the floor, formed shapes with their bodies, communicated with their own and others’ reflections in the mirrored ceiling, and formed physical chains.

The bodily physical interaction with the exhibit is further enhanced and extended by the legitimization of the use of digital technology in this exhibition, notably photography, video recording, and the posting of these images on the Internet via YouTube and the image site Flickr. The use of these technologies afforded new routes (and purposes) to engagement and participation with the exhibit and the gallery, both for those visitors who were physically present at the exhibition and those who viewed the exhibit online.

Many visitors photographed and video recorded the configurations of people on the floor and ceiling. That is they responded to and interpreted the piece visually. In doing so visitors gave new meanings and purposes to the piece. For instance, a group of 80 activist visitors lay on the floor to spell out BUSH GO HOME during a visit by Bush to London (see figure 1). There are many photographs of the project online, including the Bush go home image, which was also published in newspapers in the UK and USA (video footage was also uploaded onto the Internet and shown on television). Some of these images are accompanied by captions and short comments and evaluations from viewers of the image focused on the original exhibit, the photograph or both. Some of the images are playful, such as the image that uses perspective to give the appearance of a person holding the sun.

There are many videos of the exhibit or more accurately the experience of the exhibit. The videos of the exhibition that are posted on YouTube are usually accompanied by talk, in the form of a spoken narrative by the per-
son recording the video, or the exclamations and comments of their fellow visitors. This places the visual record into an individual or small group time and space.

Some videos uploaded onto You Tube have been edited and overlaid with a sound track: a musical response and engagement with the exhibit. This connection between the physical gallery and an artwork and music has now been formally developed within Tate Modern. Tate Tracks focuses on aural interpretation of art works in which well known UK bands have been selected to make an original musical response to a piece of art in the gallery. The music can be heard on listening posts in front of the artwork or on the Tate website.

The use of technology has affected the relationship between the authoritative character of the official knowledge of the gallery and visitor knowledge. That is, by strongly inserting the visitor in the production of the work as an experience. This enabled the visitor to experience the piece, and albeit to different degrees, to remake it through a visual or video record of their individual experience of it.

One consequence of the digital flow of traffic between this exhibit, the gallery, the visitor and interestingly the ‘non-visitor’ is to consolidate and expand the realm of connections between the domain of art and the everyday. For example, the Tate page on the weather project features a blog on talking about the weather, the global weather survey, weather stories, and weather facts. It brings together a range of voices, and knowledge, making the gallery and thus ‘Art’ a hub that may offer the gallery and online visitor a different way of engaging with the artwork. Online, the original exhibit has, to some extent, ‘disappeared’ behind the spectacle of the audience. The effect on and experience of the visitor is the primary feature of the images on Flickr and You Tube – not the exhibit in its original state. Many of the online images are of people rather than of the artwork. The experience of the visitor stands for the work – perhaps is ‘the project’. Thus realising Eliasson’s interest in the relationships people have with the artwork rather than the art work itself or attempting to design people’s individual interpretations. This serves to locate the gallery within the social life world of the visitors – linking back
to the function of the artwork, to foster critical debate, civic participation and the need to overcome the elitism of the art world.

Figure 1

EXAMPLE 2
INTERACTIVE DIGITAL EXHIBITS AND SPACE AND SOUNDCAPES: THE CABINET WAR ROOMS AND CHURCHILL MUSEUM HOME

INTRODUCTION
This example outlines the use of digital technology by the museum to create interactive experiences for the visitor, and describes the character and form of these experiences. It illustrates how technology affords opportunities and new routes to interpretation and understanding, engagement and participation with the exhibition and museum. This case study example focuses on two uses of technology in The Cabinet War Rooms and Churchill Museum which is dedicated to the life and legacy of Winston Churchill: an interactive digital exhibit – the Lifeline table which is a centre piece in the museum and the use of space and sound technology across the museum. As noted in Chapter X, the exemplary inter-actives and integrated technology that may reflect the wide use of archive materials and the lack of precious and aesthetic objects.
THE USE OF DIGITAL TECHNOLOGY TO CREATE INTERACTIVE EXPERIENCES FOR THE VISITOR

A central exhibit in the museum is the Lifeline exhibit, a 15 meter long interactive table on which visitors can access information from every year of Churchill’s life. The organizational structure for the museum exhibition provides the structure for the table and relates to five time periods in Churchill’s life, these are: 1945 – 1965 cold war statesman; 1940 – 1945 – war leader; 1929 – 39 wilderness years; 1900 – 1929 maverick politician; and 1874 – 1900 young Churchill. These time periods are divided into years, months, and key days and this chronology of events provides the organizational structure for the displays of information. The lifeline gives access to a broad range of documents including 1150 images – a variety of photographs and scanned artefacts; 1100 documents such as telegrams, letters and newspapers, as well as 200 animations, and 10 films. There are also various sound effects embedded into the table as documents are revealed – for example, the sound of a telegraph printer, or a typewriter. The Lifeline takes key events in Churchill’s personal and professional life from a variety of sources and a range of media and places them in the context of the table as museum archive.

The table, built in 1995 is and is operated by a touch bar along the table’s sides. The centre of the table is a display. It was made prior to current interactive table technology design hence the side bar functionality rather than interacting directly with the table surface. The table creates an interactive experience for the visitor, in that they can ‘drill-down’ into particular days, events, moments in Churchill’s life.

The location of the museum within the war cabinet bunkers used during World War II is a key aspect of the visitor experience. The low black ceiling with exposed pipes, ventilation ducts, RSJ steel supports, dramatic spot lighting combined with subdued lighting, narrow corridor like spaces and reconstructed living and office spaces where Churchill and his team of secretaries, communications officers, and military officers worked provides an authenticity to the museum visitor experience. To descend into the war rooms with no natural light and knowledge of the poor quality of air, and the cramped conditions is a very physical experience that is felt all the more
when one leaves the museum and returns to the day light and the view of St Jame’s Park outside the Museum.

The physicality of this experience is enhanced by the use of sound in the museum. The museum exhibition contains many multimedia exhibits, and makes use of a range of screens: large display screens showing film footage from Churchill’s life, small touch screens that ask their opinion on key issues during the World War II (e.g. Appeasement); small screens embedded in exhibits that reveal various personal letters and give a sense of the secret life of Churchill.

Sound plays a strong role in the demarcation of the museum exhibits that correspond to the five periods of Churchill’s life - created by the audio recordings of his war year speeches, the piercing repetitive sound of the air raid siren and the sound of urgent typing and telegraph machines, his daughter talking about Churchill as a father, the sounds of the birds and countryside and his musing on fishing in his later retirement years. Videos and audio-commentary of the people who worked in the war rooms can be heard (and are included on the website). These soundscapes enliven the static artefacts that fill it, and fill the reconstructed war room environments with the remembered experiences of people – about smog, smoking, sun treatment – to counteract the health issues raised by the lack of natural light, the experience of working with Churchill and the endless hours of work. The audio serves to connect the live of Churchill with the lives of everyday Londoners.

These exhibits require the visitor to get near to engage with them– creating a physical sense of intimacy and isolation. The controlled use of sound throughout the gallery is a key aspect of how digital technology is used to create an interactive experience for the visitor. The distinctive sound of Churchill’s voice is central to the representation of Churchill, his distinctive voice is used within the museum as a symbol of the man. This invitation to the museum visitor to experience Churchill aurally resonates with the media of the time - Radio. His voice, in the physical space of the museum, is one layer of the museum soundscape that is used to create an interactive imaginary for the visitor.
NEW ROUTES TO ENGAGEMENT AND PARTICIPATION WITH THE EXHIBIT AND THE GALLERY

The large digital database of information on Churchill provided in the Lifeline table is not possible to experience fully in one visit. The table can be seen as a rich multimodal text that is read by the visitor through their engagement with it: the text is produced through the interaction of the visitor – both for themselves and for others around the table. It demands to be interacted with – without the participation of the visitor nothing is revealed.

The multimodal character of the Lifeline provided the visitor with an opportunity to decide on their own route to engagement with the digital archive of information it holds. Observing the visitors’ interaction with the table in the museum makes visible the different ways in which they actively mould this expanse of multimodal information into a narrative through their interests. Some visitors, glimpsing the corner of photographs moved through the lifeline in a visual manner building a photographic album to represent Churchill’s life. Some visitors appeared to have knowledge of key dates and moved through the lifeline as a calendar even drilling down to specific weeks and days. Other visitors focused on a particular period or two. Several visitors were observed flicking through the pages until they found a film clip that they would then watch and then move on to another. In this way the visitors’ interests shaped their engagement with the artefact in relation to the content of the exhibition, Churchill’s life, the war, or a historical period more generally and their interest and preferences for different forms of representation provided routes into the story of Churchill that draw on different modes and understandings.

As a result of the size of the table visitors were often interacting in groups at the table, opening different sections, and informing the choices of one another: the sound of a film clip sometimes drawing the attention of all for example. Thus the participation around the table can promote discussion of patterns and connections between companion visitors and elicit a silent collaboration between unconnected visitors. Although the visitor can produce a narrative pathway through the ‘life’ of Churchill visitor participation is constrained to this navigation (in a way it is not in example one). None-
theless this opportunity enables visitors to engage with the life of Churchill in multiple ways.

The design of the museum space and soundscape invites the visitor to imagine the experiences of confinement and to interpret the space through their experience. The museum website provides some opportunities for regulated routes to participation with the exhibit and museum through the exhibition ‘Undercover: Life in Churchill’s Bunker’ which explores what it was like to work in this underground and asks to hear from anybody who worked, or anyone whose relations worked, down in the Cabinet War Rooms during the Second World War. These stories and some donated objects are presented in the museum and on the website.

The impact of digital technology on opportunities for visitor interpretation or understanding of exhibits and experiences

The museum is a relatively contained space, with the authority of the museum paramount and clearly regulated by the technologies of the traditional museum – for example, the display case, labeled artifacts, and the historical reconstruction of the war rooms. The visitor has the potential to create a narrative from their selections and juxtapositions through their interaction with the Lifeline table however the authority of the museum is fully retained. The table does create opportunities for discussion and interaction between visitors using the table – the images and sound effects draw visitors to particular sections of the table opened by other visitors. The interactivity is about building a narrative and building an opinion of Churchill from the information that is provided from a wide range of resources. This use of digital technology may impact on the ways in which the visitor interprets or understands their experiences – in that they that is they are positioned as an active participant in the production of the narrative via their selections, interests and engagement with the table.

The museum website however, presents some more open spaces with multiple voices including the Telegraph newspaper archive that presents stories and images from a variety of perspectives and place the life of Churchill in a broader context. The museum website also links to the History channel (a
commercial Cable Television channel) which offers fictionalized accounts of war, and documentaries, as well as links to tours to the Battlefields of WW1 and WW2 in Europe with Specialist Guides.

EXAMPLE 3
MOBILE TECHNOLOGIES: OOLK AT THE D-DAY MUSEUM

INTRODUCTION
This example focuses on an instance of the use of mobile digital technology that supports the visitor experience, in particular via inquiry-based learning aimed at school student visitors. It describes the character and form of these experiences and explores how the use of mobile digital technology impacts on opportunities for visitor interpretation or understanding of the exhibits and experiences of the museum. More specifically, it illustrates how technology affords new routes to interpretation, engagement and participation with an exhibit. This example focuses on the responses of visitors to the D-Day War museum, Portsmouth, using the OOLK services, these enable visitors to collect and create personalized galleries and trails through an exhibit, in ways that can build connections between the museum, the classroom and the home.

OOLK (known as MyArtSpace in its initial development phase) is a service that museums can purchase that uses mobile phones and a web-based portal to support enquiry-led museum learning. OOLK is used in Museums as well as a range of other sites including galleries, zoos, botanical gardens, and heritage sites and is aimed primarily school students, though similar work has been conducted with adult visitors.

The D-Day Museum, in Portsmouth, tells the story of Operation Overlord from 1940 to 1944. The Museum’s centre piece is the Overlord Embroidery. Inspired by the Bayeux Tapestry, it is tribute to the Allies in defeating Nazi Germany. The museum includes displays of archive film, music, wartime images and the words of those who lived through World War II, and displays of a day time-line reconstruction of the Allied landings by sea and air on D-Day itself. The last section of the exhibition, ‘Portsmouth Memories’, features the recorded reminiscences of local men, women and children who
experienced life on the Home Front or took part in D-Day. ‘Discovering D-Day’ is an OOKL project for young people aged 8–18 years that uses mobile phone technology to encourage young people to explore and interpret the D-Day Museum’s collections.

**The Use of Digital Technology to Create Interactive Experiences for the Visitor**

The rationale underpinning OOKL is that learning with mobile technologies in museums can serve to personalize the experience of the museum and can provide links between the museum experience and post-visit to support learning and reflection in the classroom (Naismith et al, 2004). The combination of the mobile and web service enables visitors to create their own interpretations of museum exhibits through descriptions of objects using both images and sounds. These are automatically transmitted to a personal online gallery that they can use to further reflect upon and share their experience. The importance of linking objects and personalizing movement through an exhibit to create a narrative is highlighted by Peterson and Levine (2003) who argue that meaning is made in the linkages visitors make between objects, not the individual objects themselves. Their narrative trails model includes the creation of the trail an ‘enactment’ of their pathway through the exhibit, followed by editing, the process of reflection making comments and annotating the trail, and sharing of the trail with future visitors via a website. This is echoed by Walker (2007), who argues the conceptual framework information is embedded in facilitates the integration of information and is central to what is remembered. This places the use of mobile technologies to support the creation of multimodal personal stories, and opportunities for online collaboration to create and share multimedia stories supports into a clear learning framework focused on the creation of interactive experiences for the visitor.

At the D-Day museum, the visitor (pre-organised school groups are the target audience for the use of OOKL in this museum) is given a multimedia mobile phone and registered for a personal identifier code so that the images and notes that they collect and record will be allocated to one file. They can create new content by using the phone to take photos, record sound and input text. They may also ‘collect’ objects from the museum store by typing
in a two-letter code displayed on a label next to the exhibit - which then displays a multimedia presentation and automatically sends an image and written description of the exhibit to their personal collection area in a Web portal. Having collected an item they are prompted to type in the reason why they have chosen to collect it. They can also select to view the usernames of other people who have collected that object and are encouraged to go and talk to them. The visitor is prompted to write their own description of the object, to annotate the artefacts in the museum, and to photograph and collect additional objects in their personal gallery. This information is then automatically sent back to a personal online gallery that the young people can access back at home or school where they can then revisit, edit, share and publish their galleries. (See Vavoula et al., 2009, for a full description and evaluation of MyArtSpace.)

The website hosts three repositories of digital objects: a museum ‘store’, a class ‘store’, and personal student and teacher ‘stores’. It also hosts personal student and teacher ‘galleries’, which are ordered collections of digital objects similar in style to a PowerPoint presentation that users create by selecting objects in their personal store and defining a sequence in which they will be presented. Users can view each other’s galleries. The content of the museum store is provided by the museum and comprises digital content such as photos, illustrations, and text representing physical museum objects and exhibits.

When used for a school group visit the OOKL handsets are used as part of a series of lessons. First, a pre-visit lesson to explain the concept of ‘collecting’, introduce the museum, set the inquiry questions, and allows the students hands-on experience with the Myartspace website. Second, the students investigate the inquiry question during their museum visit, using the phone to collect evidence and information. Third, back in the classroom during a post-visit lesson the students create a ‘personal gallery’ on the Myartspace web site. Created stories available on the OOKL website for the exhibition vary including for instance: D-day disaster; weapons and their use; Bombs; World war II; Winston Churchill; and Why D-Day was a success. Various themes were covered including, death, childhood, the emotional effects of the war, and the impact of the war on everyday lives. The stories thus focus
both on the artefacts and key messages of the museum and the personal interpretations of these through the interests of the young visitors and the school curriculum.

THE IMPACT OF DIGITAL TECHNOLOGY ON OPPORTUNITIES FOR VISITOR INTERPRETATION OR UNDERSTANDING OF EXHIBITS AND EXPERIENCES

A key finding from the evaluation of OOKL is that ‘…the activity of collecting multimedia presentations encourages students to stay at designated exhibits and the recording of notes and pictures enables them to create and preserve a personal perspective’ and it extends the time and range of engagement with objects (Vavoula et al. 2009, p. 295). Thus OOKL serves to facilitate the integration of information and is key to what is remembered. Walker (2007) and Vavoula et al. (2009) both note that the character of the visitor engagement can also be enhanced by the use of OOKL, noting that visitors look more carefully and with more detail at objects using the phone as a visual aid.

Vavoula et al. (2009, p. 297) note that creating objects was popular among the students and suggest that students ‘appreciate the sense of creativity and ownership that comes with creating their own representations of exhibits.” Further, looking is aided by the process of ‘capturing’ the object in a photography, visitors are engaged in selecting the framing of the object, and selecting key aspects to represent. The function of collecting objects and writing or dictating an exhibit label can also aide the learning and contesting of the authoritative definitions and discourses that museum artefacts are embedded in.

In some of the narratives the museum’s objects are collected and the text label imported into the story, and integrated into a narrative by the visitor. The themes of childhood, danger and death are at the centre of the story below. The visitor constructs the story using a mix of ready-made images and written labels, as well as generating their own images, written text and audio recordings (represented by an image of a cartoon character and microphone). The student who made this narrative imported visual images and texts from the museum’s ready-made collection of objects, and alongside
this incorporated audio tracks of their own thoughts as well as the reading aloud of the museum descriptions of objects or events.

The phone can be used to re-contextualise the objects in ways that provide visitors with opportunities to communicate their own interpretations of the exhibit or the experience of war. The visitors’ reaction to exhibits alongside those offered by the museum can also help to bridge the museum and the classroom. The process of collecting and building a narrative using OOKL demands visitor engagement in both factual and reflective work. For instance, the narrative presented below is one where the student visitor photographed the objects in the museum, and imported some of the ready-made objects tagged in the museum, to produce a personal account of the contexts of the objects – a wedding day among the air-raids and the gathering of the family around the radio. In doing so the visitor imaginatively engaged with the everyday realities of life during the war. The student did not use audio, but engaged with visual and written elements to produce their story.

The value of conversations is well known in museum learning and Sharples (2005) notes that learning is perceived as being as much about conversations as content. Walker (2007) argues that research using mobile technologies in museums and other informal sites of learning suggests audio is effective as a constructive tool for learning – particularly in collaborative situations. In particular the ways in which photographs of objects promote discussion and conversation. Walker notes the use of mobile phones in the Kew Gardens (London) to capture ‘journalistic style audio interviews between pairs of visitors’ to narrate their personalized trails – which captured different impressions on an object. He also notes that the placing of time limits on audio recordings (15 seconds) led to scripting and/or rehearsing of audio notes or quick editing which in turn led to conversations about the objects/experiences being represented.

NEW ROUTES TO ENGAGEMENT AND PARTICIPATION WITH THE EXHIBIT AND THE GALLERY

The process of constructing a narrative provides the visitor with a clear route to engagement and participation with the exhibit, balancing their
personal interests, and opinions with the authoritative factual information in the museum. There are many questions that can be asked of the museum, especially one dedicated to telling the story of a War.

In addition to providing a route through the museum exhibition for the visitor, the featured trails and personalised galleries available on the museum and OOKL website offer the ‘non-visitor’ or the forthcoming visitor traces of experience that they may want to engage with – that is, they can follow in the footsteps of a visitor. In this way OOKL and other mobile-based narrative trails in museums offer the potential to meaningfully connect with other visitors experiences. Creating a trail can be useful for both the trail constructor and the potential recipient of the trail. Walker (2007, p. 2), along with Peterson and Levene (2003) make the point that:

“connections as part of a trail is analogous to making mental connections. Thus the value of a trail is not just as a device for navigating physical space, but also as a cognitive tool for the construction of meaning making. A trail constructed for someone else is not an endpoint or a static presentation to be assessed, but something to be enacted by someone else: a set of instructions to be ‘run.’ As with writing a computer program, this requires thinking processually and being explicitly descriptive.”

As argued in the earlier chapter on Interactive Technologies in the Art Museum, possibilities for innovative interpretation can be enabled through mobile hand-held devices particularly in relation to decreasing curatorial control to allow audience narratives to override the search for a single authoritative voice.

CONCLUSION

This chapter has examined three illustrative examples of how the potential of digital technologies can be used to create interactive experiences for the visitor, afford new routes to Engagement and participation and provide new opportunities for visitor interpretation or understanding of exhibits and experiences. It shows how a multimodal approach gives access to understanding the role and value of image, sound, and action in the visitor experience and response. In particular it has shown the value of attending
to how the modes are configured in the design of digital exhibits and how the visitors make meanings through their selection of resources, designing their engagement.

The use of technology in museums and galleries does not always open up the visitor experience in these ways, nevertheless the potential of digital technologies to transform the relationship of the visitor to the exhibit remains.

REFERENCES


