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CHAPTER 12

Art on the move: Mobility – a way of life
Ian Brown

Abstract:
Mobile technologies are a recognised piece of our lives and a necessary attachment to our bodies. As educators we need to understand and consider the advantages of mobile technologies to education and exploit their use. This chapter presents two innovative case studies which use a mobile technology as the basis for an educational experience, through the exploration of the visual arts education. The mobile technology highlighted, involved the use of the iPod as a resource for learning. The experience resulted in a motivating and engaging experience for the learner through the true sense of a mobile learning experience.

Introduction
Quicker, faster, more accessible...this is life as we know it today. As technology advances users expect and demand a level of instant accessibility within the confines of the environment in which they work, live and play. Expectations are that instant responses from mobile technologies can be had from local urban street corners to remote jungles and deserts. A study by the British Henley Management College in 2003 discovered that 46% of 25 to 34 year olds ‘could not live without their mobiles’. The study described this phenomenon as akin to ‘bereavement’ (BBC, News, 2003).

Harkin (2003, p. 9) claims that ‘mobile technologies are folding themselves into the fabric of our economies, social lives and communities’. Mobile technologies are a recognised piece of our lives and a necessary attachment to our bodies. Be it a mobile phone, an iTouch or an iPod, for many, life as usual, would cease to exist if they were not readily available. As educators we need to understand and consider the advantages of mobile technologies to education and exploit their use. Academics such as Gerard Goggin (2006), view cell phones and mobile technologies from a cultural viewpoint and argue that the mobile phone can be viewed as a species of popular culture. Understanding mobile technologies from a cultural viewpoint, Goggin (2006) suggests that the mobile technology culture fits into a broad cultural field and relates specifically to the social, through cultural studies such as sociology, anthropology and other disciplines. This culture maintains the ability to ‘reclaim the sense of rich wonder and importance of the ways that people do make meaning in their everyday lives’ (p. 203). Art and art education plays a major role in reflecting culture.

Through the exploration of the notion of the use of mobile technologies in learning, case studies will be provided that demonstrate the development, implementation and evaluation of mobile technologies in art education specifically. Accepting the premise put forward by Vavoula and Sharples (2002) that the nature of learning is closely linked to the concept of mobility and the suggestion that there are three ways in which learning can be considered mobile. That is, learning is mobile in terms of space;
mobility between different areas of life and mobility in respect to time.

The *Horizon* project, launched in 2002 as the centerpiece of the New Media Consortium (NMC), charts emerging technologies for teaching, learning and creative expression that are likely to have a large impact within learning focused organisations globally. Mobile technologies, in relation to learning and education have featured each year since its inception. The *Horizon Report* (2008, p. 6) documents the scope and influence of these emerging technologies by reminding us that each year more than a billion new mobile devices are manufactured including mobile phones, PDAs and similar devices. That is, a new phone for every six million people on the planet. The Horizon report clearly supports the pervasive nature and accessibility of mobile technologies:

> Capabilities are increasing rapidly, and prices are becoming ever more affordable. Indeed, mobiles are quickly becoming the most affordable portable platform for staying networked on the go. New displays and interfaces make it possible to use mobiles to access almost any Internet content—content that can be delivered over either a broadband cellular network or a local wireless network. (2008, p. 6)

According to the NMC the way we work, collaborate and communicate is evolving as boundaries become more fluid and globalisation increases. Students now have access to and portability of content which is increasing as smaller and more powerful devices such as iPods or Amazon Kindles are introduced. Students today rely or expect a much more complex schema to find and collect this knowledge.

Students are not the only learners to demand new forms of knowledge attached to new forms of delivery. The average user now demands anywhere, anytime access. We become frustrated if our wireless connection is not instantly available in hotels, airports and classrooms. The ubiquitous wireless has enabled learning, social computing and social networking to sky rocket.

Students now have unprecedented access to visual and verbal learning through social networking tools such as YouTube, or Google Videos. Video has undergone a profound transformation. Millions of videos are just a click away. World events (and not so worthy events) are captured on mobile phones and distributed to the world. In one month in 2007, 7.2 billion videos were viewed online by nearly 123 million Americans (Lipsman, 2007).

According to the *Horizon Report* the application of mobile broadband and data mashups are evident now in learning organisations that are at the leading edge of technology adoption. (2008, p. 5) The ability to ‘mash up’ data from a variety of sources offers new ways for students to look and interact with data. The convergence of open programming interfaces for social networking will transform the way knowledge is understood and represented (2008, p. 4). An example of successful educational mashups is where Google Earth has integrated YouTube, allowing users to view videos from specific locations around the world. Ostrow (2007) sees this as a clever integration between
products, as YouTube videos are plotted according to geotags that YouTube users have placed on their content. Google is yet again providing a new social network tool for their users.

There is little debate that the use of mobile technologies will enhance learning if properly harnessed and exploited. While current research exists that identifies exponential growth in the use of mobile technologies globally it appears that little research exists that provides best case models and case studies of where and how mobile applications are being used in the educational sector.

Naismith, Lonsdale, Vavoula and Sharples (2006, p.1) predict that the challenge for educators and designers is ‘one of understanding and exploring how best we might use these resources to support learning’. Naismith, et al (2006) succinctly express the opinions and views of many educators in relation to the future of mobile technology in education. They state:

Mobile technologies are becoming more embedded, ubiquitous and networked, with enhanced capabilities for rich and social interactions, context awareness and internet connectivity. Such technologies can have a great impact on learning. Learning will move more and more outside of the classroom and into learner’s environments, both real and virtual, thus becoming more situated, personal, collaborative and lifelong. The challenge will be to discover how to use mobile technologies to transform learning into a seamless part of daily life to the point where it is not recognized as learning at all (p.5).

While mobile technology education can be different things to different people, in this chapter the term mobile follows the definition offered by Naismith et al (2006) that mobile means ‘portable’ or ‘movable’ and/or ‘personal’. Klopfer et al., (2002) as cited by Naismith et al., (2006) identified five properties when looking at mobile PDAs that produce unique educational affordances. Properties include ‘portability’ (the ability to be taken to different sites due to small size and weight); ‘social interactivity’ (data exchange and collaboration with other learners); ‘context sensitivity’ (the ability to gather and respond to real or simulated data; ‘connectivity’ (shared network) and ‘individuality’ (scaffolding for difficult activities).

Theories of learning relevant to learning with mobile technologies

To appreciate the ability of a mobile device as a support to learning it is important that the educational experiences are embedded in sound educational practice and the ‘mobility’ of the device is exploited to its potential. The area or theory of learning which best describes the following case studies tend to be from a hybrid of areas. Constructivist and situated learning probably best describe the type of learning developed for the users. According to Naismith et al., (2006, p. 10) constructivist learning is where experiences are developed which allow learners to actively construct new ideas or concepts based on both their previous and current knowledge. While situated learning
involves experiences that promote learning within an authentic context and culture.

According to Naismith et al., (2006):

In order to transform learners from passive recipients of information to active constructors of knowledge we must give them an environment in which to participate in the learning process, and the appropriate tools to work with that knowledge. Mobile devices give us a unique opportunity to have learners embedded in a realistic context at the same time as having access to supporting tools. (p.12)

Based on the work of Lave and Wenger (1991) the second area of learning most applicable to the case studies presented is the area of situated learning. Naismith et al., (2006) suggest that in relation to the use of mobile technologies:

Situated learning requires knowledge to be presented in authentic contexts (settings and applications that would normally involve knowledge) and learners to participate within a community of practice. By developing appropriate context-based teaching strategies with mobile technologies, we can fulfill both of these requirements (p. 13).

The iPod –truly mobile

The Apple iPod was chosen as a mobile device to explore learning in the context of visual arts education. The iPod is arguably the most popular portable media device produced today. Originally developed to store and play digital music it has increasingly become more sophisticated as new models emerge, with features such as touch screens, video capability, image storage and flash memory. The latest iTouch allows transfer of music, numerous audio file formats, wifi connectivity, photo storage and display, game, contact information transfer, emails and calendars. By September 2007 more than 150 million iPods had been sold worldwide (Gaba, 2008).

Apple through their Learning Interchange (2008) claim that the ‘iPod enables learning on the go, meeting the mobile and media-rich learning styles of today’s students.’ Michael Bull (2007) argues that the Apple iPod is the first consumer cultural icon of the twenty-first century. Bull contends that the iPod represents a sublime marriage between mobility, aesthetics and functionality. Bull reminds us of the user in terms that ‘the iPod puts them in tune with their desire to eke out some aesthetic, cognitive and social control as they weave through their day’ (p. 3).

Approach

Twenty two undergraduate students enrolled in the Bachelor of Education course at the University of Wollongong were involved in the study. Focusing particularly on one academic subject, Visual Arts Education, students were invited to participate in the study which would explore the use of mobile technologies (the iPod in particular). The students were required to develop, implement and evaluate a series of learning experiences that exploited the affordances of mobile
technologies by embedding them into an educational experience. Students then provided peer evaluations of each other’s assignment. Students were required to use an external site, the Wollongong City Art Gallery to implement their program of work. Within the subject students were required in groups of three to complete the following assessable task:

**Task: Art on the move**

**Exploring the on-site use of mobile technologies for innovative teaching and learning in visual arts education**

Students in groups of three (3) will develop an innovative, interactive visual arts learning experience using a mobile device (iPod) to deliver the experience for students K-Tertiary. Through research, exploration and invention students will develop an age appropriate learning experience which uses or culminates on-site at the Wollongong City Gallery.

The task will consist of three phases:

A. The Design Stage
   i. Visit the Wollongong City Gallery and the surrounding area to be used a stimulus material
   ii. Consolidate the area of study and the age of the students for the experience
   iii. Design the learning experience
   iv. Identify the teaching and learning outcomes. (Note: the experience should be designed for a maximum of one hour duration and must be in the confines of walking distance of the gallery).
   v. Allocate the roles of the group members where necessary

B. The Development Stage
   vi. Develop and construct an iMovie/podcast/videocast to be used by students on-site, which may include interviews, downloads, still shots, scanned images, audio clips, etc.
   vii. Students may provide some written support for the experience, e.g., pamphlets, worksheets. (Remember: the mobile device is to be the predominant pedagogy).

C. The Implementation/Reflection Stage
   viii. Students will be involved in downloading and undertaking one of the learning experiences developed by their peers
   ix. Students will be required (individually) to use the resource on-site, evaluate and reflect on the experience providing useful critical feedback to the developer.

**Areas of Exploration**

Students could explore any of the following areas for the development of their experience:

- The gallery (its role in the community, curating…)
- Artistic practice (the way art is created…)
- Artforms (the media and forms artist use in their practice…)
- Artists
- Artworks
• The audience
• Analysing art
• Artist studios (artist in residence)
• Places and spaces (public art, architecture, galleries)
• Idea and representations (art periods, ideas, themes such as Aboriginal art, feminist perspectives, spirituality, popular culture, social and cultural contexts, symbolism)
• Exhibitions (the notion of a body of work)

Seven groups were formed and seven projects were developed. To demonstrate the diversity of the projects two cases were selected and highlighted for this chapter.

Through a project entitled *aRtitecture*, Year 10 students were challenged with the use of video and audio, to view the existing architecture of the Wollongong City Gallery. By exploiting the mobile nature of the iPod, students were provided with a learning experience which both motivated and engaged them. The *aRtitecture* project is described in detail below.

Three preservice teachers, Lisa, Kristen and Luke (pseudonyms used), described their task and outcomes as:

The *aRtitecture* Challenge is an interactive iPod visual arts learning experience designed to engage Year 10 students in the appreciation of architecture and art. The purpose of the experience is to challenge the more traditional perceptions of art by encouraging students to understand that architecture is an art form in its own right.

**Learning experiences**

The challenge was for Year 10 students to create two new gallery spaces by evaluating the role, aesthetics, form and function of the existing spaces. Students explored spaces within the gallery looking at the entrance and with the support of a worksheet noting main features. Students were given the opportunity to sketch various areas of the gallery including the exterior. Students were encouraged to wander through the gallery, prompted at times to stop the tour and answer a number of questions or reflect on their findings. Specific architectural features were discussed and students were required to provide feedback. Students were encouraged to sit within spaces, immerse themselves in the surroundings and share their thoughts with friends. Aspects of the architecture were discussed in relation to the place of art and artworks. At the end of the visual verbal experience students were encouraged to design their own ‘space’. Another important aspect of the learning experience was listening to an interview with the gallery’s curator. From the interview students were able to learn about the history of the gallery and how the gallery was transformed from the old city Council Chambers.

**Peer reflections**

The feedback or evaluation phase of the task allowed peers to provide constructive criticism and reflect on the experience. The preservice teachers were specifically required to comment on the effectiveness, the innovative use of the device, the creativity in the design of the task and exploitation of the mobility of the device.
On reflection by peers it appears that the task was extremely effective in achieving the assigned outcome of engaging the Year 10 students. The use of the iPod as a mobile technology allowed the users to pace their learning which stimulated the learner by providing visual and oral clues. Students also commented on the ease and enjoyment of listening to the comments while wandering through the space. On the whole, the teachers found the learning experience innovative, exciting and engaging. While recognizing the compact nature of the device and ease of use, some teachers did comment on the many hours taken to produce the one hour learning experience. On the whole the comments were extremely positive and they reflected the teachers’ views of the device as a way of scaffolding learning.

A second project entitled Case of the Missing Artwork is presented to demonstrate the diverse nature of the projects developed. In this case, art appreciation is explored for Stage Three students where art terminology is encountered and taught. Using a ‘secret agent’ metaphor, students developed an interactive and engaging learning experience to motivate the primary aged children.

Three students Nicole, Kate and Debbie (pseudonyms used) described their task and outcomes as:

This learning activity was designed for Stage Three students (age 10-12) and aimed to further students’ understandings of artistic terminology and appreciation of art. The task was designed with the Wollongong City Gallery in mind as a platform for an engaging activity designed to cultivate a deeper understanding of local and international artists. The activity takes the form of a quest in which the students needed to collect clues from a particular artwork. The clues aimed to develop knowledge of artistic concepts as developed through relevant syllabus documents. The task was designed to develop critical thinking and evaluative skills. The clues focus on artistic techniques, media, cultures and time periods.

Learning experiences

Using an authentic task the iPod experience was designed to appeal to a variety of learning styles. For example, there were written clues, audio only clues as well as video clues. Clues collected related to the concepts of adaption/adaptation, focal point, art periods, perspective/viewpoint, art media, subject matter and the gallery space. By providing this range of experiences the task enabled the learners to engage and interact with the content presented. Using authentic style activities such as ‘Secret Agent’ terminology, fonts, graphics and the inclusion of ‘real’ community members, all adding to the motivation and engagement qualities of the task. Supporting case note files were included following the look and feel developed for the mobile technology task. The case file notes supporting documents also served to scaffold the learners through the provision of separate sections for each clue. The task included post visit activities that could be undertaken in the gallery or back in the classroom. In summary, the secret agency (CIA) has discovered that an artwork is missing and the user has to find clues to solve the mystery of the Missing Artwork.
Students were assigned an identity to complete the task, such as, Agent 913.

Students were required to complete peer reflections as an assessable task at the conclusion of the tasks. Generally, the teachers, after undertaking the tasks, commented that the experience was ‘highly motivating and engaging’. The use of the iPod was both a novelty as well as motivating to the learner. Positive comments could be found using words such as ‘brilliant’, ‘engaging’ and ‘encouraging’. Teachers highlighted that the authentic locations and their ability to use the gallery as a stimulus provided an ‘important connection between the virtual reality and actual reality of the activity’. In relation to the inquiry process presented, one teacher commented:

The problem solving, deductive reasoning and critical thinking skills built into this learning experience position the learner to evaluate their clues.

Creativity engagement and mobility

Why bother with mobile technologies? As one preservice teacher’s reflection stated, it took them twenty hours to develop a learning activity that engaged learners for only one hour. Mobile technologies are now part of our lives and are not going away. Whether it is Gen X, Y or Z… they are wired up and fundamentally attached socially, culturally and educationally. The challenge for educators is not whether they will exist in education but how we can best understand and exploit their use. What makes them different from traditional forms of learning is their ability to engage, motivate and be mobile. Naismith et al., (2006, p. 1) challenges educators today by asking the question ‘how much sense does it make to continue to exclude from schools, powerful technologies that are seen as a normal part of everyday life?’

In the case studies presented, overwhelmingly the students were able, through their experiences with mobile technologies, to construct knowledge, think critically and engage with learning. The iPods acted as a catalyst for motivation, innovation and support. The technology allowed for self paced learning, scaffolds to support the task, visual and audio to motivate and engage. Obvious well constructed learning experiences initiated the task and I thank the teachers of these activities for sharing them with the readers. The mobile technologies turned the educational learning task into an educational learning experience. The iPod can act merely as an information delivery device but must be ‘pushed’ further. Importantly, the devices have the ability to immerse students both visually and verbally with the up to date specific knowledge required.

Challenges for educators will be how to use the devices to their advantage. That is, exploit the mobility and turn the learning experience into a rich learning experience. Mediocrity and sameness should not sit beside innovation and creativity. For example, audio guides currently exist for tours of major art galleries and exhibitions… teachers of the 21st century need to exploit the ability for the mobile devices to afford additional knowledge through video and audio using well designed authentic experiences.
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