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What is This?

Podagogy

The iPod as a learning technology

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ABSTRACT   With the growing influence of social media on contemporary society, educators have to adapt to new ways of engaging students in the learning process. The use of iPod technologies, as part of this new breed of social media and associated gadgetry, offers fresh opportunities to enhance the student learning experience. As part of a research project entitled Podagogy at the University of Wolverhampton, three projects within the performing arts subjects were undertaken to explore the use of the iPod as a learning technology. This article reports on a number of common themes that have emerged as a process of the research that has been undertaken. These themes offer educators an understanding of how the iPod can be used as a learning technology within their learning and teaching practices.
KEYWORDS: *iPods, learning technologies, performing arts, Podagogy, podcasting, social networking*

Introduction

Today's student population has been referred to as digital natives who 'think and process information fundamentally differently' (Prensky, 2001: 1) from their predecessors and have been influenced dramatically by the technological shifts that have occurred within contemporary society. The 'always-on' culture (Baird and Fisher, 2006) has created a new form of social media where students have the power and autonomy to locate knowledge instantaneously, anytime, anyplace, anywhere. This has generated a learner experience which places increased demands on educators to meet the unconstrained expectations of students. With Burgess and Mayes' (2003) acknowledgment that 'pedagogy will evolve to fit with the capabilities of the new technologies' (p. 301), learning technology innovations offer an opportunity for educators to engage students in the development of their learning journey. But, in so doing, educators have to

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learn to adapt their learning and teaching practices to respond to the challenges of students being socially networked. This is evidenced in the rapid development of social media such as MySpace, YouTube and SecondLife, all of them dependent on engagement with ICT in a manner that focuses on creating networks.

Although the 'iPod generation' is a title given to those whose social networks are created through such media, the iPod itself epitomizes the dominance of the individual, potentially the triumph of the solitary over the social experience. First launched in 2001, the iPod is a brand of portable media player designed and marketed by Apple computers. When the iPod first entered the market, its initial use was as an audio player; however, subsequent generations of the device have incorporated video capability. The popularity of the iPod is undisputed and crosses a gender divide where gadgets such as this can often be presumed to be a preserve of male identity (Welte, 2006). Furthermore, its prevalence raises the important question of how such a device can be at once both an emblem of the socially networked e-generation and an icon of a personalized e-universe. From a research project entitled 'Podagogy' (www.podagogy.co.uk), funded by the Centre for Excellence in Learning and Teaching at the University of Wolverhampton, this article reflects upon the use of the iPod as a learning technology.

The iPod as an icon of popular culture

The iPod (and other mobile listening devices) have become an icon of popular culture (Sterne, 2006), to the extent that iPod users use their music players to control time and space (Bull, 2005). The advantage of using the iPod as a learning technology with students is that, though difficult to define why, the devices have managed to retain their coolness in a market where an abundance of music players exists (Reppell et al., 2006). This has made the iPod socially acceptable (Clark and Walsh, cited in Chan and Lee, 2005) amongst the youth of today (both actual age and perceived age). Indeed, mobile technologies such as the iPod have had a major influence on society (Farnsworth and Austin, 2005). Farnsworth and Austin (2005) recognize these devices as 'miniaturised hybrid assemblages' incorporating a combination of audio, image and text technologies, enabling enhanced flexibility of interaction with different media. Although iPod and MP3 devices are mainly used for leisure-based purposes, they offer great opportunities for flexible learning (Mellow, 2005). In addition, many have acknowledged the contribution iPods can make to the process of lifelong learning (Pownell, 2004).

The iPod in the classroom

Within a classroom environment, Slykhuis (2006) recognizes the useful-
ness of the iPod for playing music, for use as a portable hard drive, for
displaying pictures and for recording audio. It is unsurprising, therefore,
that iPods have been viewed as a disruptive technology challenging the
conventional practices of educators (Berry, 2006). The exact nature of
the 'disruption' varies depending on the use made of the iPod in a given
educational setting and, as will be discussed later, the potential for varied
modes of disruption is enormous. Podcasting is one aspect where this has
occurred. Podcasting involves the authoring of, and subscription to, audio
and/or video multimedia files on the internet (Lim, 2005). These files
can then be downloaded and played back on a range of mobile devices
including laptops, mobile phones, PDAs, iPods, and other MP3 players
(Bausch and Han, 2006). The associated term 'vodcasting' refers to those
podcasts that include video. In higher education, the phenomenon of
podcasting has captured the imagination of academics and it is clear that
iPods are a means of enabling learning material to be disseminated in more
creative ways. This is particularly via enhanced podcasting where users can
simultaneously listen and watch audio and visual materials whilst also inter-
acting with the medium to access new sources of learning such as journal
articles and other media. Furthermore, podcasting and vodcasting are
effective means for encouraging the development of collaborative learning
(Ractham and Zhang, 2006), which reflects the development of social
networks in a diverse society, and meets, inter alia, the needs of students
with different learning styles (Alexander, 2005) and those who like to
learn 'on the go' (Lim, 2005). Learning 'on the go' facilitates a process of
time-shifted learning, so learners can choose when and where they wish
to learn (Chan and Lee, 2005).

Duke University, in the United States, successfully piloted the use of
iPods with all their first-year students during 2004 (Duke University,
2005). The iPod was used to support the delivery and learning of a range
of subjects including foreign languages, music, engineering, humanities
and the social sciences. The academic use of the iPod fell into five main
categories: as a course content dissemination tool; as a classroom recording
tool; as a field recording tool; as a study support tool; and as a file transfer
and storage tool. Since the Duke University initiative, a number of other
institutions have subsequently followed suit in adopting iPods and pod-
casting as an educational medium (Blaisdell, 2006). Though some argue
that iPods are a 'mobile' technology (Mellow, 2005), it should be noted
that, whilst the iPod is a portable device, it does not have the same
context-specific capability as, for example, a mobile phone. Unlike mobile

phones, early generation iPods are not capable of retrieving files or data instantaneously whilst they occur, and have to be connected to an online subscription service for data to be retrieved. It is likely that the educational opportunities that iPods provide will continue to evolve as evidenced by the emergence of the iPhone and the iPod Touch, both of which have context-specific capabilities.

The Podagogy Project

Practice-based research in the use of iPods in the classroom has flourished as academics and their managers have seen the device's flexibility as promoting a new culture of learning, at once personal and social. This practice has focused on the phenomenon of podcasting as much as the promotion of the iPod itself. Indeed, the creation of podcasts does not specifically require any engagement with the iPod as such since students may simply choose to access podcasts via a desk-based PC or laptop. Since 2005, a team of performing arts tutors at the University of Wolverhampton have been engaged in research into the broader use of iPod technologies, promoting diverse approaches in teaching and learning. Though Podagogy has been referred to as a portmanteau term to describe the notion of podcasting and pedagogy (Anon, 2007), the team's intention was to explore the iPod's potential within and beyond podcasting per se to draw out the range of learning and teaching themes that have emerged from each of the research projects undertaken. Therefore within the context of this research, Podagogy has broader concerns regarding the use of iPod technologies to develop pedagogical practices in learning and teaching. The research team was aware of this potential diversity and the research was based around three projects, each of which took a different approach to using the technology. Building on the experience of Duke University, this embraced work in which the iPod was used as a means of content retrieval and work in which it was an integral part of the creative process. The broad learning outcomes for each of the projects entailed students to demonstrate a range of skills. This included performance skills; creative powers of interpretation, research and exploration; assimilation and synthesis of complex information and theoretical concepts and how these relate to practice. Each of the projects will be explained to offer a context to the research study and how the learning outcomes were assessed.

Podcasting and popular music

Podcasting and vodcasting were used with level-two BA (Hons) Popular Music students who were each given an iPod video at the beginning of the academic year. The intention was to supplement the taught sessions

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with enhanced podcasts incorporating visual materials and supplementary resource weblinks with which students could interact. This was in contrast to the widespread embracing of podcasts as a replacement for traditional lectures. In addition, there was a special focus placed on students creating their own collaborative podcasts of popular music bands that could subsequently be shared with others via social media. Table 1 outlines the module in which the summative assessed podcasts were located.

iPods and scenography in drama

The iPod Photo was used by a group of level-two BA (Hons) Drama students studying a Scenography module. The students developed a dramatic performance which could be visualized as part of a reconstructed installation. The installation took the form of a shock-like situation whereby a sequence of disturbing visual images was conveyed to the audience by means of a television screen situated in the corner of a room. The audience would listen to the narrative accompanying the visual images by means of the iPod to convey extra meaning to what was being presented on screen. In contrast to the music project, these students were not given personal iPods, although a number were available for the group to work with. The iPods made available to them were, however, the fourth-generation machines which supported still images. Table 2 outlines the module in which the installation was created.

Table 1 **Module overview**

Module title	Historical and contextual studies in popular music
Module description and aims	The module provides students with the opportunity to develop knowledge and understanding of the history of popular music styles and the context of its production, distribution and consumption.
Assessment	Audio podcast The content of your podcast (length 10-12 minutes) will consist of an in-depth outline and appraisal of the popular music scene in a specific UK region or geographical location. It must focus on a period before the year 2000, be approached in a scholarly manner and demonstrate a depth of reading, listening and research. You may focus your work on local venues, performers, producers, recording studios, record labels, radio stations, TV shows, aspects of youth culture, production and distribution networks, music retailing and so on.

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Table 2 **Module overview**

Module title	Scenography II
Module description and aims	Having explored the basics of scenography at Level One, Level Two students will deepen their understanding of scenographic processes firstly, and briefly, with established texts in conventional spaces. Then having designed for 'the box', students will engage in a process of thinking that looks beyond the familiar and moves toward site-specific work and designing for theatre outside 'the box'. This will open the way for in-depth study of scenography and site-specific work.
Assessment	Reconstructed Installation In response to a given stimulus based on a site-specific performance space, students will present initial design ideas for an actual performance event to be located in a single chosen space. The installation should be set up in such a way that the interactive element of the scenography can be experienced. Following the realisation of the designs students will submit individually definitive portfolios of designs and an evaluation of the performance event.

iPod video and dance performance

By contrast, moving images were essential to the use of the iPod in dance performance. Here, the iPod video was used with level-three students studying for the BA (Hons) Dance and Performance degree. Students used the iPod video to create 3–4 minute dance performances specifically for the small screen, which could then be compared with their reproduction for the larger screen. The comparison would enable an assessment to be made on whether the relocation of performance to a small portable viewing facility would impact on the process of performance making through dance and video. Table 3 outlines the module in which the dance videos were produced.

Themes and reflections

In exploiting differing capabilities of the iPod, five unifying themes emerged, each of them reflecting the development of contemporary social networks. As was anticipated by the tutors, these themes were not uncommon in such performing arts-based projects. Yet the level of commonality that surfaced across the set indicated a level of transferability

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Table 3 **Module overview**

Module title	*Dance, video and technology*
Module description and aims	The concept of 'Dance for the Screen' forms the basis of this module. This module aims to give students the opportunity to advance their skills in dance based video editing, filming, performance techniques and visual design. Whilst the module has an emphasis in practice, where the student will articulate a visual understanding of the relationship between dance, the performer and the camera, students will also engage in studying the work of key practitioners, the history and development of the dance and the camera, and the notion of a definition of 'dance' in relation to digital technology manipulation.
Assessment	Dance Film for Video Choosing a film director from the list below produce: • A 3–4 minute dance for screen/videodance. The film should reference the directors style and content and demonstrate a good understanding of a body of work by the chosen director. and • a rework or version of the dance for the iPod screen. Your rework should take into consideration screen size and the portable nature of the viewing facility. Directors: Jim Jarmush; David Lynch; Quentin Tarantino; Sally Potter; Ang Lee

beyond their original subject arena. Although it was acknowledged by the tutors that the iPod was developed specifically for the retrieval of sound-based files (with the later addition of image and video capability), this was not the primary focus of the projects. The themes themselves grow from the capabilities of the iPod and the context of the projects. It was no surprise, therefore, that the use of sound and image (both static and moving) was central. The following discussion will deal in turn with each of the underlying themes that have emerged from the experiences of the project leaders and the students who have used the iPods within the respective projects.

Flexible learning

Flexibility has been viewed as a key element of developing the learner experience via mobile technologies (Luckin et al., 2005). Indeed, flexibility reinforced the experience of other practice-based researchers in the use of

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the iPod in the way it enabled the separation of the tutor and student from the traditional place of learning (i.e. the classroom). For example, in the popular music project, students were able to engage with enhanced podcasts at a time and location of their own choosing, facilitating, as mentioned previously, a process of time-shifted learning. The content of the podcasts, however, was not restricted to conceptual information about music, but required students to engage with the podcasts to improve their own performance skills. The students could then rehearse musical compositions via the direction of the podcasts using their iPod video. There was, therefore, flexibility for students to familiarize themselves with practical work via enhanced podcasts as well as with conceptual knowledge in traditional podcasts. In the dance and drama related projects the recording of performances specifically for the iPod enabled students to reflect critically on their work away from the classroom environment. Students commented on the greater flexibility of the learner experience that this offered, and how they were able to further improve upon their performances as a result of self-evaluation from observation using the iPod.

Creative learning

Information technologies have been viewed as a successful way of fostering creativity within education (Ogunleye, 2002). Sutherland et al. (2004) further argues that new technologies can act as part of the creative production of new and innovative teaching and learning practices. In this context the use of enhanced podcasts as a tool for rehearsal enabled individual students to take a creative approach to group working. Students felt that the development of performance-related videos and podcasts for the iPod empowered them to think more creatively about their subject matter. For example, the dance students had to be creative in the development of their video performances for the iPod as these had to be produced and recorded so that they could be viewed effectively on the smaller screen. In drama, the students thought how the iPod could be used creatively as a third party in the performance piece itself. From the tutors' perspective, the use of the iPod as a delivery mechanism challenged them to consider new ways to approach their subject matter and their curriculum material. The creation of learning objects and performance pieces for the iPod generated an experience that would have been very difficult to achieve using alternative modes of delivery and engagement.

Sensory learning

It has been suggested that performing arts students often 'think in qualities' (Prentice, 2000). In this account, dance and drama students are

kinaesthetic learners who learn through doing, whereas music students learn through sound. Across the higher education sector, the phenomenon of podcasting has been predicated on the recording of aural information to be listened to by students at a time convenient to them. In extreme cases, this has amounted to little more than the recording of a lecture. MacLeod (2006) points out the astonishing popularity of Susan Stuart's lectures on the epistemology of Immanuel Kant, which became a number 1 download from Apple's iTunes higher education lists. This was as much because of the method of delivery as the subject matter: a simple talking-to-camera where the use of image replicates early approaches to broadcast television with continuity announcer or newsreader delivering to camera.

Each of the projects here, however, engaged with image in a way that allowed student response to, and interaction with, either images contained on the iPod or images designed to accompany a particular playlist. In the case of the dance choreography for iPod, there was a stated intention of creating movement content that would communicate its intention through a small screen. The primary objective was therefore aesthetic, in contrast to the recording of music performances as material through which students would undertake an analytical exercise. In the drama project, the deliberate alignment of moving images on an accompanying video was intended to create a diagetic relationship between the two. The use of the iPod, therefore, blurred the boundaries between kinaesthetic and aural learning with students being able to use a variety of senses to reflect upon the creation of their shared learning objects. Consequently, students were engaged in a multisensory learning experience.

Personalized learning

As noted at the outset of this article, the development of personalized learning is a function of social networks. Yet the purpose here was ultimately to enable students to engage in live group performance. The personalized nature of being able to develop learning objects and performances for the iPod was perceived by students as a highly motivating experience and quickly developed into a social experience as they shared the material they had created for the iPod with family and friends. This is something which they would not necessarily do with traditional written pieces of assessed work such as essays, for example. Students also claimed that they gained a massive amount of satisfaction from placing their own performance work on the iPod alongside other famous performers, a phenomenon embraced by the recording industry as contemporary artists perform alongside singers of previous generations. This development of self-esteem

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and identity was reflected in the quality of the work that was produced amongst the students, thus suggesting a deeper learning experience was gained.

Collaborative learning

Though personalization was a key factor to using iPods in the research projects, the use of the iPods also, paradoxically, developed a collaborative learning experience amongst students. Although students may have listened individually to material on their iPods, they took part in a collaborative learning experience of a piece of performance art. For example, the dance students worked in groups when using the iPod Video to produce dance performances. Although the experience of choreographing work for the small screen contains a strong collaborative element in the creation of the performance, the resulting image is necessarily a highly personalized experience, given the size of the iPod screen. In the drama project, the students collaboratively developed their performance based around the iPod, resulting in a shared learning experience. The music students developed collaborative podcasts for the iPod, which were then disseminated to others via social media. Within each of the projects, students reported that they had experienced greater social bonding from engaging in the use of the iPod, and that this had enhanced their overall learning experience.

Conclusions

The research themes that have emerged from the Podagogy project demonstrate how the iPod enables educators to generate innovative learning opportunities. It is evident that the iPod can offer an experience that meets a number of key learning objectives for higher education institutions. The iPod can develop a more creative learning environment that gives a sense of self-empowerment and autonomy to the individual. Ultimately, this can lead to a more responsive and independent learner who has a greater degree of control over their learning experience. It would be foolhardy not to speculate that social media, and gadgets such as the iPod that accompany this media, will increasingly influence the way in which learners engage with knowledge-based experiences. Indeed, the increased adoption of social media and gadgets will continue to blur the relationship between work and leisure in society. Although it is important to acknowledge the tensions between the social and the personal in the use of the iPod as a learning technology, in a world of social networking experiences, collaboration within the educational context has to be

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redefined. Furthermore, as much social media is based upon Really Simple Syndication (RSS) feeds that enable learning objects such as podcasts to be transferred to mobile devices, the technologies are based upon a push approach to learning where knowledge finds the learner as and when it occurs. This is very different from the traditional learning experience where students come to class at a fixed time and location. Higher education institutions will need to adapt to the flexibility that devices such as the iPod can bring to the learning environment. It should also be acknowledged that this flexibility can alter the relationship between the academic and the learner, where the learner can 'pick and mix' what knowledge they desire to learn and when. Such an experience places new demands on educators to consider how to adapt to this changing model of knowledge creation and dissemination.

As the performing arts subjects were central to the focus of the project, the extent to which these findings are transferable to other subject areas is open to further research. Though it is not the intention to advocate the widespread use of iPod technologies across the educational arena, the use of the iPod in this context illustrates how the device can be used to engage students in the learning process. Clearly the use of the iPod generated some very real challenges that are worthy of noting. This includes the need for sufficient resources to support the use of the iPod and associated technologies that accompany the device. The technical infrastructure of the institution, and the ongoing training and support for using the device within learning and teaching, also need to be considered. Issues of inclusiveness for meeting the needs of a diversity of learners, who may, for example, be visually or hearing impaired, also have to be considered when using iPod technologies. Nevertheless, with the constant influence of social media and gadgets on contemporary society, the popularity of the iPod, and any later incarnations, is likely to grow. Learners themselves will increasingly become more reliant on this form of communication, which can facilitate an experience that resonates with their own expectations of learning. With this in mind, higher education institutions need to consider the extent to which iPod technologies offer a means to enhancing the student learning experience within their learning and teaching practices.

Acknowledgements

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