Abstract
The adoption of podcasting as a delivery mechanism within higher education is becoming more pervasive. Podcasting can offer great potential when used as a strategy for learners to generate content to be shared with their peer group. This study explores the use of podcasting as a means of developing learner-generated content within a third-year undergraduate module called Heritage Management. In groups, students had to produce a podcast for a heritage attraction which could be used by tourists as a visitor guide. As part of a weekly blog, students reflected upon their learning process in the development of the podcast. The findings suggest that the activity develops a range of academic and practical skills that have the potential to enhance the students' employability.

Keywords: podcasting; learner-generated content; heritage attractions

Introduction
Higher education institutions (HEIs) attract a diversity of students who are increasingly value conscious and require experiences that satisfy their learning needs. This has been further driven by factors that include widening participation policies, the payment of student fees, the quality assurance of programmes and the need to develop the employability skills of students. To meet changing student expectations and demands, HEIs are promoting blended modes of delivery based upon the use of technologies and new pedagogical advances. An innovation that embraces new technology is known as learner-generated content. This is a means of student engagement where learners generate content which is then shared with others as part of their learning experience (Lee, McLoughlin, & Chan, 2008; Sener, 2007). The research draws on the theoretical perspective of learner-generated content to analyse student experiences of podcast creation for heritage attractions.

Technological innovations in the form of portable media players (including iPods) and podcasting have enabled learners to adopt a more active approach to the creation of knowledge and promote responsibility for learners’ own learning and the learning of others. Indeed, the potential uses and benefits of these technologies have been given close...
attention recently (Dale & Pym, 2009). Yet it has been argued that learner-generated content is a marginalised activity in education (Sener, 2007). This paper reports the findings of a study analysing the learning experiences of students developing podcasts for the purposes of heritage interpretation. The research has been undertaken as part of the wider Podagogy (see www.podagogy.co.uk) research project at the University of Wolverhampton. The paper initially reviews the influence of podcasting technology in education before discussing its use in promoting learner-generated content in the hospitality, leisure, sport and tourism subjects.

Podcasting in education

As HEIs look towards blended modes of delivery, podcasting offers an opportunity to further engage students in the learning experience. There is an emerging literature on the educational uses of podcasting and its pedagogical application to a variety of contexts, which, it has been argued, can be an effective method of enhancing the student experience (Cooper, Dale, & Spencer, 2009; Dale, 2007; Dale & Hassanien, 2008). Indeed, podcasting has been used for the dissemination of lecture material, assessment feedback, fieldwork, student support and for online and distance learning (Salmon & Edirisingha, 2008). Harris and Park (2008) further classify the educational use of podcasting into four different areas: teaching-driven, where podcasting is used for lecture delivery and coursework creation; service-driven, where podcasting is used for delivering information on library resources, course details and student support services; marketing-driven, where podcasting is used for recruitment purposes; and, finally, technology-driven, where podcasting is used to assist in technology adoption to aid teaching delivery methods.

Dale (2007) reviewed the use of podcasting for learning and highlighted its potential benefits including its ability to meet a range of learning styles and develop key skills such as critical thinking and reflection. Where HEIs have adopted widening participation policies, podcasting has also been effective for engaging a variety of students from diverse social backgrounds and cultural origins (Dale & Hassanien, 2008). However, it should be noted that a number of studies have derived mixed results on the educational use of podcasting. Some highlight its potential for encouraging the mobility of the learning experience (Cooper et al., 2009; Copley, 2007; Evans, 2008; Lee & Chan, 2007), whilst others note its benefits when compared to written modes of communication (Abt & Barry, 2007). Nevertheless, podcasting is becoming a feature of supporting the delivery of courses in HEIs. An under-researched field is the development of podcasts by students themselves, and previous research has noted the need to explore the student use of podcast creation and its link to assessment (Abt & Barry, 2007).

Learner-generated content

The meaning of the term learner-generated content can differ depending upon the context in which it is applied. This kind of engagement can also be described as user-generated or student-generated content. The development of Web 2.0 technologies has facilitated interaction and empowerment through the creation of content. Sites such as YouTube and Facebook enable users to engage in a socially networked experience where their visual and audio productions can be shared instantly with others. The widespread use of Wikipedia is another example where content creation is shared amongst users. The potential to exploit Web 2.0 technologies for empowering learners within an educational context is therefore worthy of further exploration. Indeed, it is not unusual for student knowledge to be tested via the assessment of learning outcomes through the means of essays, reports, seminar papers and so on. Yet this “end product” of learning is rarely shared amongst the peer group and ultimately is often only seen by the tutors (Sener, 2007).

Learner-generated content enables students to create and share knowledge using Web 2.0 technologies. The contemporary learner has therefore been described as a “prosumer”, who has the ability to produce the knowledge that they consume (Lee & McLoughlin, 2007). It is argued that literature on learner-generated content is still at an embryonic stage (Lee et al., 2008). Basing their research upon the three metaphors of learning: the acquisition metaphor, the participation metaphor and the knowledge creation metaphor (Paavola & Hakkarainen, 2005), Lee et al. found that students developed greater potential for knowledge-building.
when using learner-generated content. They commented that students “are there not to simply participate in activity and acquire skills, but also to produce shared outcomes and advance the intellectual capital of the group” (Lee et al., 2008, p. 510).

The development of learner-generated knowledge and content has influenced the power differential between tutors and students. Whereas traditionally the tutor would impart knowledge to students using a lecture/seminar format, students now have the opportunity to create and share knowledge with their peers quickly and easily (Dale & Lane, 2004). This has potentially influenced the power dynamic between the tutor and student and presents challenges to the tutor whose role then changes to one of facilitator, ensuring that the shared knowledge is valid and reliable. Sener (2007, p. 5) further contends that “pedagogical models of education presume that students lack proficiency, relevant experience, and the ability to direct their own learning; students’ needs and interests are largely irrelevant, as education is about what society has deemed important for students to learn”.

Methods

The research focused on a group of students studying a third-year undergraduate module entitled Heritage Management. This is an optional module that can be taken by students studying BA (Hons) programmes in Tourism Management, International Hospitality Management or Event and Venue Management. The module teaches the theoretical principles of heritage management, focusing on topics such as interpretation, living heritage, conservation and sustainability. The module runs over a 12-week period with the taught material being delivered in the first half. In the second half of the module, and to fulfil the assessment requirements (see Figure 1), students were placed in small groups and were asked to create a podcast of a heritage attraction of their choice, which could be played on a portable media player (e.g. an iPod) for the purposes of heritage interpretation. The module incorporated a fieldtrip to the Black Country Living Museum where students further explored the application of heritage interpretation principles. Following the fieldtrip, students produced a “mockcast” (i.e. a dummy podcast) of their visit which prepared them for the podcast assessment and using the software.

Module title: Heritage Management

Learning outcomes
On completion of the module, the student is expected to be able to demonstrate:
• critical appreciation of the need for a professional approach to heritage management
• an ability to evaluate and develop interpretative strategies for heritage sites
• an ability to appreciate and develop strategies to implement the appropriate level of authenticity for a heritage site

Assessment: Using podcasting to enhance interpretation of a heritage site
Working in groups you have been tasked by Black Country Heritage Interpretation Society to develop a podcast to facilitate and enhance the interpretation of a local heritage site. This podcast will be presented in a formative presentation.
Working individually you must use Pebblepad to blog your reflections on this process. This will need to be shared with your tutors.
Working individually you must also write a formal 1,500 word report which critically analyses the principles of heritage interpretation as they apply to the attraction in which the podcast has been produced.

Figure 1 – Module learning outcomes and assessment

Students followed the same process of podcast creation that Dale (2007) previously outlined. This included creating enhanced podcasts using the Apple programme GarageBand (see www.apple.com/ilife/garageband/). The use of the software enables audio, visual and weblink material to be embedded in the podcast. The students were given guidance on using the software during the tutorial sessions and created a storyboard of their intended podcast prior to production. Students had to physically visit the heritage attraction to understand the
interpretation of the site and how this could translate to a podcast format. This entailed the students collating information on the historical facts of the attraction and each group took photos which could then be included in the podcast. The attractions chosen by the groups included Moseley Old Hall, Wightwick Manor and Lichfield Cathedral.

Throughout the process students were asked to compile an individual reflective blog on their experience of developing the podcasts. Blogs are an effective method for generating student reflection on a given topic (Cobanoglu, 2006) and students were directed on areas to consider when engaging with their blog. It should be noted that the podcast itself was not directly assessed. Subsequently, the students had to produce a short report based upon their critical analysis of the principles of heritage interpretation as it applied to the attraction in which they produced the podcast.

Students presented their podcasts as part of a formative assessment and were invited to comment on the podcast creations of their peers. Focus group interviews were subsequently undertaken with each of the participant groups. The interviews were recorded and transcribed. The three focus group interviews and 15 individual student blogs were analysed using thematic content analysis.

**Evaluation**

Students successfully created enhanced podcasts that could be played on a mobile device for understanding the interpretation of heritage attractions. The creation of the podcast enabled the students to learn from the innovations of others and had a practical value in that the podcast could be used by the heritage attraction. Analysis of the empirical data revealed that, overall, students were satisfied with this method of learning and a number of themes emerged. These are categorised as students’ initial thoughts on the podcast assessment, the extent to which the activity developed deeper learning, the value of the activity as an assessment of learning and finally the level of support required to complete the activity.

**Initial thoughts**

Students’ initial thoughts and feelings towards this assessment approach were mixed. Although students were familiar with the concept of podcasting as an everyday medium, they expressed feelings of fear and insecurity. It should be noted that the lecturer had used podcasting to support the delivery of one of the modules that the students had previously studied on their programme. Therefore they had some prior knowledge of podcasting and its purpose in supporting learning. Nevertheless, none of them had previously engaged in podcast creation, which resulted in these negative emotions. Students also acknowledged their fear of using the technology, which was largely due to them having to get used to a new operating system (Apple Mac) through which they would create the podcasts. The following comment from a student blog reiterates these points:

> I was initially quite daunted by the idea because I am not very comfortable with new technology and I had never created a podcast before. I thought I would have problems with creating one. (Student blog)

However, students were also excited by the prospect of creating podcasts as this was a new type of activity that they had not previously engaged in:

> Even though it will be hard work and probably frustrating at some points, I am looking forward to the challenge and am excited what the result will be like later. (Student blog)

**Deeper learning**

The research confirms previous findings on the knowledge-building benefits of this approach to learning (Lee et al., 2008). Students initially had to understand the subject material before applying it to the heritage attraction in the form of a podcast. This encouraged students to engage with the theoretical material and to read more widely around the subject matter:
Having gone to the Manor and wanting to create a good podcast does inspire me to research the subject matter to learn more and create a true representation of the life and history of the Manor. (Student blog)

The research has noted the development of a number of key skills that may not ordinarily be achieved using alternative methods of assessment. These include creative, imaginative and practical skills, as the following comment illustrates:

It was an expression of the group’s creativity we all made an effort to ensure the criteria was met by looking into the subject matter more enthusiastically. (Student blog)

Indeed, in contrast to traditional modes of assessment, it could be argued that the activity has the potential to further develop the employability skills of students. Students felt that they gained a greater understanding of the subject from both a manager’s and consumer’s perspective and acknowledged how the activity would benefit them as prospective candidates in the employment market:

When writing an essay you look at it just from the theory and management perspective. With this you look from the consumer perspective and really start to understand what they want to know. What do they want to see? (Focus group interview)

We have had to think about the project like a manager would rather than a student. (Student blog)

I think it is good because the heritage industry is changing every day and this is giving us a skill that’s very valuable. (Focus group interview)

The fact that the students could see the practical application of creating the podcast increased their motivation to engage in the activity, as the following comments illustrate:

Being able to experience a heritage site has made the module realistic and interesting. (Student blog)

Books give theory but when you go and see it, and then you are actually doing it for an actual reason and people could actually use it … it gives you motivation to work. (Focus group interview)

However, not all students felt that the activity engaged them more deeply with the subject matter. Feedback in one of the student blogs revealed that the focus at times was getting the podcast completed at the expense of engaging with the subject:

The assessment has definitely encouraged more interest and understanding of heritage but not at a very deep level. I think this is partly due to the fact that the majority of the practical podcasting sessions were concerned with making the end product, rather than engaging deeper into the subject at that time. (Student blog)

Assessing learning
Students commented on how the activity motivated them to learn about the subject matter. Blog and interview comments revealed that students perceived the activity as being less work than alternative modes of assessment such as writing essays and reports. When compared to podcasting the comments reflected a general dissatisfaction with these modes of assessment, as the following illustrates:

I strongly believe that podcasting is a useful method for assessing student learning, as it requires you to inter-relate concepts of heritage management to the reality occurring within heritage sites today. (Student blog)
Actually it was good as it made me learn more… more interesting, something different… better than sitting just writing. (Focus group interview)

… not just a report, but it is being made for visitors, for a purpose which I personally think is more motivating than a big essay. (Student blog)

It is something different and it provides more variety to assessing students. We already know how to write essays, reports and make PowerPoint presentations. Making a podcast makes us more curious and in that way we are more interested and engaged. (Student blog)

The novelty of creating podcasts was also a factor which made the activity interesting to students:

It did enhance my motivation to learn as it was quite a novelty to use this new method and it required imagination and creativity. (Student blog)

As has been noted, the podcast itself was not directly graded. However, students illustrated instrumentalist (Dale & McCarthy, 2006) modes of learning behaviour, suggesting that they would ultimately have liked the podcast to be given a final grade as the following comment states:

It would have been better if the actual podcast would have been marked. We put a lot of time and effort into the making of the podcast and it is a shame that we do not get directly marked on it. (Student blog)

Learning support

As mentioned earlier, factors including lack of self-confidence when using the technology were common amongst the sample group. This suggests that it should not be assumed that learners have the autonomy and technological know-how to generate content. Previous research has noted how students require sufficient support when using podcasting (Dale & Hassanien, 2008), in terms of using the technology as well as engaging with podcasts as a learning tool. The following comment illustrates this point:

Throughout the process of creating the final product, I did experience certain problems. These were mainly to do with using technology that I wasn't used to. However, the lecturers were always on hand to help, and we had plenty of time to practice using the software. (Student blog)

Although students were generally satisfied with the level of tutor support they were given in producing the podcast, they would have liked further access to the hardware for producing the podcast, as the following comment suggests:

We’d need to have more flexible access… we needed the Apple Macs for a day or two. (Focus group interview)

Conclusion

This paper has explored the use of learner-generated content and podcasting as an assessment tool. The findings suggest that learner-generated content enables an enhanced learning experience to occur and is effective for assessing student learning. A broad range of theoretical and practical skills are developed that could promote a student’s potential employability. The students in the study acquired a skill that they can take to a prospective employer, which offers them added value as a candidate. Furthermore, the activity has empowered students to gain a deeper theoretical understanding of the subject matter. The technology can be perceived as a barrier to engaging with this activity. If tutors are considering using learner-generated content in their learning and teaching strategies they need to ensure that there is sufficient support, and access to the relevant hardware and software.
The small-scale nature of the study means that caution should be exercised in generalising the results more widely. It should also be acknowledged that factors including the novelty of this activity could have skewed the research data towards positive outcomes. Therefore, further longitudinal research is required. Future research should also investigate the collaborative e-learning experiences of developing learner-generated content.

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References
