

RVC Podcasting

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Summary

The introduction of the new curriculum at the RVC in 2007 - with its focus on independent lifelong learning - requires students to have quick and easy access to online College resources to support and enhance their learning approaches. Although some students arrive at the RVC with a laptop or mp3 player, we cannot yet base core course provision on variable access to these mobile learning (m-learning) technologies. Early indications from research being conducted at the RVC, in partnership with Leicester University as part of the HEA funded [IMPALA](#) project, demonstrate an extremely positive response from students. This proposal seeks to equip the 2007 BVetMed intake students with 30GB video iPods, enabling us to explore the factors that enhance (or inhibit) independent lifelong learning using these m-learning devices. The widespread implementation of mobile technology will also serve as a springboard for broader educational research in m-learning technologies at the RVC, with a view to developing policy for best use.

What are the pedagogical and practical advantages?

There are a number of strong pedagogical and practical reasons for providing students with ubiquitous access to iPods. Use of m-learning devices is argued to improve literacy and numeracy skills, encourage independent and collaborative learning, identify areas where learners need support, mitigate resistance to Information and Communication Technologies, engage reluctant learners, enable learners to remain more focused for longer periods, and promote self-esteem and self confidence (Attewell 2005). Provision of iPods to first year veterinary students could have the following advantages:

Providing accessible learning

Early trials recording lectures at the RVC have demonstrated an extremely positive response from currently enrolled students. They report being able to catch up on missed lectures or difficult concepts, review or revise topics in otherwise "dead space", and even find they are less stressed in lectures as they do not need to "get everything down". In addition to audio-recorded lectures, podcasts of tutorial discussions have also been cited as benefiting student learning (Tynan and Colbran 2006). iPod versions of physical learning objects - for example museum pots - provides immediate access, countering the problem where large cohorts struggle to engage with the materials or the tutor.

Students also report the difficulty in getting time with tutors during laboratory classes, for example anatomical dissections, due to the large class sizes and relatively few demonstrating staff. Access to a 'FAQ' section on the iPod, with video clips demonstrating procedures and techniques, would go some way towards addressing this issue.

Facilitating independent learning

Using audio snippets to link course materials to ongoing research and everyday life has been shown to encourage student to prepare before teaching sessions and reflect afterwards (Lee & Chan 2007). Research at the Open University (and in the LIVE myPad project) suggests that the spoken word can influence both cognition - adding clarity and meaning, and motivation - by conveying directly a sense of the person creating those words (Durbridge 1984). Listening may motivate students who do not like reading (Cebeci and Tekdal 2006).

Combining formal and informal learning

Oblinger (2005) states that 'More learning takes place outside of the classroom than in it', underlining the importance of informal learning, which complements formal learning. Vavoula (2005) has also reported on the diverse settings in which adult learning takes place, including the

workplace, home, outdoors, with friends and at places of leisure, which needs to be taken into account if we are preparing our students to become lifelong learners.

Countering student isolation and anxiety within large cohorts

With large number of students in each cohort, there is a tendency for students to feel isolated from teaching staff and they report a lack of effective formative feedback in the National Student Survey (see <http://www.tqi.ac.uk/>). Research at Australia's largest provider of distance education, Charles Sturt University (Lee & Chan 2007), found that podcasts promoted a sense of inclusivity, reduced anxiety and were especially effective in clarifying and enhancing students' understanding; providing backup / reinforcement of learning and supplying guidance on further study efforts. The approach they took helped to build an inclusive learning community for all students.

A study at Melbourne University by Kennedy and Krause (2006) revealed that international students were more likely than local students to make use of m-learning technologies, combining social interaction with study. This has implications for the increasingly international student body at the RVC, partly a consequence of AVMA accreditation which also routinely seeks evidence of novel teaching approaches.

Great stories from Science

User of podcasts of original source material at Georgia College and State University, where experimentation with iPod happens campus-wide, has found that students who use primary source material (in this case audio archive recordings) pose questions, observe details, and speculate about context - about what was going on behind the materials. The Great Stories from Science theme in the new curriculum could be partially covered by using an interview technique as demonstrated by Matthias in relation to people associated with great stories and discoveries relevant to the veterinary degree.

Developing new teaching methodologies

Despite previous failed attempts at 'edutainment', Prensky (2001a) argues that new teaching methods will be required to engage 'digital native' learners, seen to be fundamentally different from previous cohorts. He argues that this will mean "going faster, less step-by-step, more in parallel, with more random access, among other things", and that this new breed of learners are 'crying out' for new approaches to education (Prensky 2001b).

Providing 'value for money' to fee-paying students

All new students will be required to pay tuition fees for the first time in 2007. One way that students could perceive the early benefit of this cost would be by receiving a desirable iPod delivering information such as the library induction video of direct value from day 1 at the College. Nottingham veterinary school already offers a range of giveaways to new students. A free iPod would be an attractive counter incentive, likely to assuage subsequent intake years. By nature of its novelty, the initiative is likely to attract publicity in the educational press.

A practical alternative

There are insufficient College PCs for the whole year to use simultaneously. Students are reluctant to own a College laptop due to the risk of it being stolen on the walk to Camden campus, the weight that they would need to carry and the fact that most already own a PC. However, an informal survey of current first year's indicates an enthusiasm for an RVC iPod.

Why first year vets?

The iPod is going to be particularly relevant for Years 1 and 2 of the BVetMed. Once students move on to the 3rd Year it is proposed that a device with roaming capability such as those being trialled under the LIVE MyPad project would be more suitable in order to allow them also to access materials off site whilst doing EMS.

It is possible that students in later years of the BVetMed and on other courses may question why they have not also been provided with i-Pods. The best response to this is that the iPod is linked to the new veterinary curriculum and its focus on independent learning. Innovative uses of m-learning devices will allow the College to promote a social constructivist approach to learning, in a deliberate move away from the behaviourist tradition of didactic teaching. Students will have convenient access to learning materials viewed at their own pace and to suit individual learning styles.

What learning resources would be available to iPod users?

The College academic staff, e-Media Unit, LIVE Centre and Library have produced a significant quantity of m-learning resources, available via the secure RVC server:

- introductory videos of the RVC and library
- research and lecture podcasts
- annotated histology slides
- anatomical dissections
- anatomy potcasts
- surgical videos
- and assessments.

Why iPod?

Video iPods represent state of the art technology, launched by Apple in late 2006, and the company has expressed an initial interest in working with the College on this initiative. Whilst similar schemes have been launched in the US, there are few examples of good practice in this area in the UK. The video iPod, with its high quality screen, large disk storage and long lasting battery, represents a significant upgrade to previous iPod models.

The increase in band width available to students and the widespread access to personal computers (the vast majority of 2006 student intake already owned their own laptop PC) opens up new opportunities to deliver content from a central web server to the student's own laptop or handheld device. A pilot of first year students in 2006 indicated the popularity and widespread use of this approach. However students used College PCs or home laptops to access most of these resources as they did not own handheld video devices (which tend to cost over £200).

How will we measure the learning?

Evaluation will include logging statistics, questionnaire and focus group discussions with stakeholders, including students, teachers and learning support staff. This will be undertaken with a view to assessing the learning benefits as a basis for developing best practice policy about the embedding of new mobile technologies into veterinary education. Formative and summative components? Publications?

Miscellaneous other research (to cite or not!)

Recent research into the use of mobile learning (m-learning) devices raises the question of whether students can adapt mp3 players such as iPods - typically used by the majority of students for music downloads - for more effective and efficient individualised learning (Cobcroft et al. 2006). Reference has been made to the 'Net Generation' or 'Digital Natives' - undergraduate students born after 1980, who it is assumed, are comfortable with new technologies and therefore able to employ these devices in a learner-centred context.

What would it cost?

A free iPod would have a number of staff resource and cost implications.

The cost to the College of this proposal is likely to be £ if the iPods are purchased through the Apple bulk scheme including personalised engraving with the RVC logo of each device.

An alternative would be to follow Duke University's current policy of offering iPods at a substantial

reduction with an extended warranty required (Duke now offer the 30GB Video iPod to students at \$99 after initially giving them away for free in 2004)

The process of handing out iPods on the induction week would be relatively easy. Initial technical support to assist in synchronisation, battery failure etc could require several person days/week but this is likely to reduce over time. The most significant staff resource will be in populating the server with suitable e-learning resources. Whilst a significant quantity of these are already available, additional resources such as introductions to the course, specific topics, dissections etc would require additional staff preparation time. It is proposed to invite students to assist with this during the summer and also to employ a number of students in the first year.

There are inevitably going to be students who loose or break their iPods. In these cases it is suggested that the onus will be on the individuals to replace their device themselves.

References

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POSTSCRIPT NOTES

We are currently looking at ways that we could manage the content provision process within Blackboard. We have a new trial podcasting plug in which allows us to link to audio/video on our streaming server and create a series of podcasts which can be synchronised to iTunes or Juice using an RSS feed. Looks rather promising.

Still waiting for some good pricing on the iPods themselves - we had the University of London Computer Centre in today and they said that Apple were furious that Dabs were selling us iPods at £ 150 as this undercut the Apple cheapest price!