

## **Day 1: Wednesday 11th January 2011**

### **Exploiting mobile technologies in learning**

#### **Workshop 1 The classroom is not the only place for learning**

*by Tony Parkin*

Whilst not all educational technology can be categorised as mobile, with the growth and near-ubiquity of the web, and the ability of learners to access learning technologies without being sat in a school computer suite, learning is potentially more flexible than it has ever been. Informal learning has always taken place outside school, but with so many solutions bridging the home-school divide and blurring boundaries there is now a less clear-cut distinction between formal and informal education. But what are the implications for learners, particularly those with special educational needs, disabilities, or others who perhaps more vulnerable or at risk. Does this mobility offer new opportunities, or present new challenges and threats? And is education making the most of the ability to harness these new affordances?

The session was opened by Sue Briggs, Achievement Lead for AfA for the South of England, who introduced participants to the work of Achievement for All. Built on successful pilot running from 2009 -11, she was keen to explain that this is not simply an SEN programme, but rather a framework for a whole school improvement programme which aims to reach all learners.

Sue checked how many of audience had brought portable multimedia devices, such as a smartphone or other internet-enabled device. This unsurprisingly turned out to be most of the current audience, and when she asked how many even had two or more such devices there was still a significant number. One aim of AfA, Sue continued, is to establish how such devices could specifically help vulnerable learners, and how they might be enabled to access them for their learning.

But this is not just a project about about the expensive and high end technologies we had in our pockets at BETT. The 'talking tin lids', relatively inexpensive audio devices created for domestic use by the visually impaired, in the hands of creative teachers had proved to be powerful learning tools, reminding children what they needed to do the next day. Free voice recognition apps for computers and mobile devices have proved amazingly useful for some learners, such as children with dyslexia who can find that they revolutionise their lives. One learner, who by conventional measures was deemed functionally illiterate, was able to sit and pass A levels through his use of voice recognition software. Interactive displays using simple cameras and camcorders not only motivate pupils but can be ideal for parental engagement, sharing the learning at school with the parents at home. Sue explained that Achievement for All are keen to explore and expand this use of mobile learning devices, and that this was the focus for the session.

A number of invited speakers, students, teachers and lecturers, were there to share their own experiences with mobile technologies, many researching the area and keen to report back on their findings. It was clearly an exciting field and many had turned up to contribute.... we were in for a long session!

Prof Norbert Pachler, from the Institute of Education, has been researching mobile learning impact for many years. Reporting the work of the London Mobile Learning Group, ([www.londonmobilelearning.net](http://www.londonmobilelearning.net)), he opened by outlining the key principles of the socio-cultural ecology of mobile learning, with particular emphasis on 'at-risk learners' and with reference to some specific mobile learning projects. Much of the work of the

group had been carried out as research within higher education, and this to a degree hidden from schools, but the group are currently seeking ways to extend its value and reach further into the school sector, not only by publishing books, but also via more accessible channels such as open-source journals.

He was keen to emphasise that the research focus was firmly upon the learning that was afforded, rather than the devices used. Also the research addressed the social and cultural contexts within which the use of the devices, and the subsequent learning, took place. A major challenge is that clearly there can be a tension between the way that the young learners normally use and learn from their devices, and the ways in which they are expected to work within formal education. In many cases this meant that the response within formal education to this tension is to simply ban them, which makes assessment of the potential and affordances of such devices to enhance formal learning somewhat challenging!

Different devices do offer different functionalities that can be of value to learning, and there is a rich and complex mix. So one of the early challenges when research started in 2007 was to try and define what was a mobile device, and which functionalities were being considered. The focus was largely upon phones, but there was recognition that other devices such as tablets and consoles could also offer rich opportunities for multimedia learning enhancement. An added challenge was that quite varied and different groups of learners could be considered as being 'at risk' when it came to the use of mobile devices for learning. One clear example was that young boys were quickly identified as being especially at risk with mobile phones, largely due to their cavalier attitude to the safety risks involved in their use. They were not alone in this, and when one considers that the 'terms and conditions' information for many of the online services that are offered can run to many pages, full of complex language, it will not only be these young boys, many with English as an additional language, who could be deemed at risk through a lack of understanding about what they were engaging in and agreeing to!

The context of text creation on a mobile phone can also be quite complex, for example taking photos of printed contact details to store on phone, use of QR codes to capture written information, voice to text conversion. These mean, for example, we may have to redefine aspects and categories learning by use of text communications and transfer for the purposes of research. In fact these new rich affordances can mean the challenge for research is not so much to define 'what is learning', as to try and work out 'what is not learning'! A challenge he threw to the audience. Also whether mobile learning was about chopping up educational content into smaller pieces to fit mobile devices, as much of BETT seemed to suggest, or was it more about discovering new forms of learning and cross boundary learning, without constraints of location, that these new devices allow us to explore. They also allow personalised definitions of relevance that can make learning much more aligned to the needs and interests of the learners, which has particular relevance to students at risk.

Professor Pachler then completed setting the scene by introducing an analytical model to monitor the impact and affordances of mobile learning, used by researchers, and based on agency, cultural practices and structures:

- Agency – the users capacity to act on the world
- Cultural Practices – the routines that users engage in during their everyday lives
- Structures – that govern the users being in the world.

He pointed out that many of the current changes linked with the technology for learning could have a profound impact on all of these, not only for the learners themselves, but also for the teachers who can feel left behind by the rapid changes that seem to threaten their own agency, structures and cultural practices.

Christine Terrey, Headteacher of Gray's School in Newhaven, then presented an insight into how her own practice was being affected by the work of Achievement for All. Gray's has been an AfA pilot school, and has long recognised that the children are constantly learning whether in the classroom or not. Digital technologies add to many dimensions, they have helped make children aware of their learning, motivated to learn and explore more widely, and help increase their self-confidence and ability to share their learning with their parents or carers. A key part of the project-based approach used at the school are the structured conversations with parents, agreeing on the goals for each child. This means that child, parent and teacher are all stakeholders in the learning of that child through the project, and that they share the values and goals. The sharing is facilitated by the use of a wiki-based eportfolio space, which can be accessed and contributed to by child, teacher or parent on any device that they chose to use. The school had to take care to ensure that all involved could access the system, which involved supporting access and funding in some cases, particularly for some disadvantaged families in rented temporary accommodation, with 3G netbooks and other devices.

The wikis included text, pictures, sound and video that recorded and celebrated the child's progress. One key benefit was that the eportfolio allowed the child to see their own progress, and gain confidence. Another was the empowering of parents to see, praise and support their children's achievements, whilst the teachers felt empowered and informed to see some of the informal learning that went on outside the classroom. Clear benefits to all involved. Particularly pleased by the way it really did allow them to reach some of the hardest to reach parents, probably because those parents could see that there were direct benefits for them and their families by being engaged. The staff must be enabled to understand how the project will improve the chances for all the children, and it must be demonstrated that their contribution is valued by giving them the time and support to help them develop their own skills in using these tools and approaches.

The ensuing discussion underlined the importance of the leadership that Christine had clearly demonstrated during the presentation. A number in the audience had experienced difficulties in winning over parents to the idea of using these online approaches. Christine then explained how she had won over even the most difficult parents and managed to convey the value of the approach and project. The importance of winning over the community of parents and teachers was paramount, and there was no doubting the effectiveness of the leadership that had made this such a highly successful pilot.

The focus then swung to Africa, when John Cook briefly outlined the position of mobile learning there. Though only some 10% in Africa have access to the Internet via a PC, 28% had access to communications via a mobile phone, which clearly shifted the balance for learning potential. The affordances were obviously huge, and the rapid development of new services can be learned from in other countries. One example was the use of bulk text messaging to the communities of farmers, telling them of agricultural developments, disease outbreaks, precautions etc. This topic was to be explored more extensively in a subsequent AfA workshop on Saturday.

“The Handheld Learning Project” in North East Lincolnshire, supported by Kevin Burden, from University of Hull, (<http://handheldlearningproject.wikispaces.com/>) was the next project explored. This is a research and development project which seeks to explore how handheld learning devices (in this case the iPod Touch) might support the transformation of pedagogical practices across a number of primary schools in North East Lincolnshire. There was particular interest in early observations that, because the devices were perceived as being 'cool', some of the harder to reach pupils, notably boys, seemed more willing to engage with the project than was typically the case. Five primary schools

are involved in the current phase of the project and there are approximately 240 iPod Touches in use across these schools. The leadership aspect of a group of schools insisting on working as a collaborative alliance, rather than as individual schools, is another interesting dimension. This is leading to different patterns of professional development and sharing of resources and pedagogy in ways that had not been seen previously. The project is being researched by teachers in the schools and by education staff from the University of Hull. Though the teachers were wary of the dangers of mobile devices, they were keen to see what they could. The children themselves frequently become teachers on this project, not only in training other children, but also in showing the teachers and their parents what could be achieved with the devices. Parental engagement seems to be much higher with the multimodal learning, and another key element appears to be ownership of the devices, so that the pupils have them all the time, not just at school. There is still significant work to be done before the report on the project will be released.

The final speaker was Ben Bachmair, reporting on a case-study from Germany on 12 year old boys studying maths, and one who brought in Pokemon videos into his project, looking at the maths behind the scoring within Pokemon. This clearly was real-life mathematics of key relevance to the pupil, and he produced an excellent project. Sadly the teacher felt challenged by the combination of entertainment and maths, and the project was not seen as a success. This illustrates that there may be some way to go before all teachers are comfortable with the game-based learning approach favoured by some of their peers, and popular with some pupils including at-risk groups.

This session had been extremely long, and strayed far from the MirandaMod unconference model of a few minutes input followed by discussion, but had provided a rich and informative diversity of inputs that clearly showed the potential of mobiles to help deliver on the Achievement for All agenda.

<http://www.mindmeister.com/130966765/exploiting-mobile-technologies-in-learningwww.londonmobilelearning.net>