Chapter 20
Empirical Research into Students’ Mobile Phones and their use for Learning

Claire Bradley
London Metropolitan University, UK

Debbie Holley
Anglia Ruskin University, UK

ABSTRACT
This paper reports on empirical research conducted to find out about higher education students’ mobile phone ownership, and the ways in which they are using their mobiles for learning. A survey with a group of first-year students has been followed up by an in-depth study, in which three students were lent Flip Video Camcorders to capture their mobile learning activities and were interviewed to discover more about their practice. The video footage and interview data have been compiled into three rich case studies which help us to better understand students’ practice and attitudes towards mobile learning. The paper focuses on the survey data and the three case studies, which were analysed using grounded theory. The outcomes of this research can inform the work of educators seeking to design effective mobile learning activities that build on existing student practice and extend mobile learning within the blend of learning activities that we offer students.

INTRODUCTION
It is now accepted that mobile devices have a number of important characteristics which make them attractive from an educational perspective, including increasing portability, functionality, multimedia convergence, ubiquity, personal ownership, social interactivity, context sensitivity, location awareness, connectivity and personalisation (Pachler et al., 2010). Much research has taken place documenting mlearning pilots and projects, and in developing theoretical frameworks...
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to scaffold mobile learning (e.g., Kukulska-Hulme et al., 2009; Laurillard, 2007).

Our research stems from the desire to be able to utilise the powerful mobile phones that students now have with them all the time - devices which they know how to use, and already use for a multitude of tasks in their everyday lives. We agree with Schuck et al. (2010) that, given the ubiquity of mobile devices, an imperative has arisen for educators in higher education to familiarise themselves with the affordances of mobile technologies for learning so that they are able to capitalise on their students’ usage of these devices for effective learning (Schuck et al., 2010). Traxler (2010) also looks at the dreams and responsibilities inherent in universities in embracing students’ own mobile devices, and in particular to unlock the dreams of agency, control, ownership and choice amongst students, but outlines a number of risks as well, and concludes that there are no simple solutions. Our approach is more pragmatic, believing that we first need an understanding of students’ attitudes towards mobile learning and their uses of their mobiles for learning. Then we can begin to design effective mobile learning activities that will bring mobile phones into the blended learning arena, including them within learning scenarios, rather than excluding them. Such activities should utilise students’ own technology, avoiding the need for the university to provide it and thus a whole set of operational issues (cost, training, support, adoption of use, etc.) which many earlier mobile learning initiatives experienced. There is however, a lack of research into how students are actually using their own phones for learning outside the formal classroom.

This paper presents findings from a project funded at London Metropolitan University (London Met) which has explored in depth how students are using their mobile phones to help with their learning. London Met is an inner-city University which encourages widening participation. As a result, the student body is diverse: there are many mature learners (many with children) who are returning to education and international students who do not speak English as their first language. Most students also now work to fund their studies. Hence tutors are actively seeking strategies to engage learners both inside and outside the classroom within the blend of learning activities offered.

Context to the Study

To put this current work into perspective, the authors of this paper have been involved in a number of mobile learning initiatives and pilot projects at the university over the past few years, bringing mobile learning within the blend of learning activities used within the classroom. These include: a student mobile phone survey conducted over five years; lending mobile phones to masters level students to complete an out-of-classroom assignment, which included the provision of a phone-based checklist to remind them of their task; the provision of an online ‘mediaBoard’ for students to post images and discuss their groupwork in support of a field trip and assignment (Cook et al., 2006); the provision of study tips via SMS; the creation of learning objects for mobiles (Bradley et al., 2009); and the use of SMS messages in lectures to increase student participation and engagement (Bradley et al., 2010).

Much of our work aims to understand and improve the learning experience and help a diverse body of students to succeed at university. Evaluations and lessons learned from previous work have shown that students are motivated to use new technologies (and in particular mobile phones) for learning activities, and that carefully designed mobile learning activities can engage students to participate in them (Bradley et al., 2010; Bradley, Smith, & Cook, 2010). Once engaged within the learning process, they can be motivated to participate and stay engaged. We know from our student survey conducted over the last five years that all students now own a mobile phone, and that the phones they have are increas-