"Please turn on your mobile phones"

– adopting SMS communication in undergraduate lectures in the School of Geography

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The high percentage of ownership of mobile phones in the student population has attracted a significant interest in higher education institutions on integrating the use of such ubiquitous devices into learning and teaching. Related to these changes, the trends in the adoption and use of short message service (SMS) have grown dramatically over the past few years.

In the School of Geography at the University of Nottingham, communication via SMS live during undergraduate lectures was initially piloted in 2006. The module which firstly adopted the SMS system is the first year module introduction to geographical information science (GMS). The subject of geographical information science is new to most year one students and it had has traditionally been perceived as being overly technical and 'dry'. Engaging the students with the subject has proved to be difficult and the large group size was also perceived as a barrier. The registration for this module was between 180 and 200 students.

The SMS system employed has a web based interface and can be used from any computing device that allows internet access. The user connects online and can then interact with the system to send, receive, schedule and update contacts. It is very similar to an email client, but sends SMS messages rather than email. As it is web based it can be used in any lecture theatre without the need to install dedicated software. The students send their SMS to a dedicated number which was provided to them by the School to save in their 'contacts' on their own phone at the beginning of the year. The SMS messages then appear on the resident PC whilst the lecturer is delivering the lecturer and they can choose to make verbal responses accordingly. The opportunities offered by the adoption of this novel SMS communication method were many, namely;

- Clean slate – year one students are open to new teaching strategies as they accept that it will all be different compared to their previous experiences. This means that they tend to be receptive to new ideas, which are introduced to them at this point

- New subject – the module is a brand new subject for 1st Year students as it is not part of the A-level curriculum. When students encounter the module in their year one programme, there are few pre-conceptions or misunderstandings arising out of how they were taught to do things previously.

- No learning curve – the fact that students use their own mobile phone for the service means that they are already comfortable with the device and the technology. Equally, no staff training is required.

- Potential to engage students with low confidence levels as it is anonymous in-lecture questioning and communication

- Chance to reverse the traditional 'dry subject' view into student enthusiasm

- Maintain lecture attendance

- Low cost for the School both to implement and maintain the system

Thus the first pilot went ahead in 2006-2007 and proved extremely popular with the students and staff. For the following year (2007-2008) the School expanded the service to incorporate a glossary whereby the student could send a text message containing a predetermined technical term to the service and receive a definition for that term straight back to their mobile device. Again the service was very well received by the students and feedback suggested that the School should not only continue to use it but also consider further expansion.

Building on the preliminary findings from the pilot implementation, a joint study lead by the Visual Learning Lab (VLL) has started systematically evaluating the usage of the SMS in year one cohorts in September 2009. The study will explore students' experience of the use of mobile phone and SMS services for their core GIS module. The study will look at how the anonymous in-lecture questioning and communication using mobile phone have changed the dynamics of the classroom-based lecture, and the relationship between lecturer and students. According to the preliminary observations, after implementing the SMS system in 2006, year one students seem to take ownership of their learning much earlier than had previously been seen with this first year group, forming a social network on Facebook on one occasion and engaging in widespread peer support. Traditionally this peer engagement and support doesn't begin to happen in earnest until they go on a field trip together around Easter time. This feeling of community has been instrumental in helping the new cohort to settle and build in confidence right

from beginning of their study. Hence the study also investigates in what way the adoption of the SMS mobile service established and supported a 'learner community' where collaborative learning in groups is fostered.

Although the analysis of the study data is still underway, the initial findings from the survey show very positive feedback from the students. The majority admitted that they would feel humiliated if they asked a 'stupid' question in front of two hundred people, but are more comfortable with anonymous SMS communication in lectures. The SMS approach helped students to overcome their shyness and reservations, in an intimidating environment, and encouraged them to ask questions anytime without interrupting others. Consequently, the spontaneous SMS communication seems to make students engage more with the subject. Interestingly, not all texts sent were relevant to the teaching topics; some were 'very amusing' even poking fun at the lecturer. However, the sense of humour the lecturer showed, when making response to those texts was highly appreciated by the students. All students agreed that the teaching was more fun and interactive and they enjoyed very much the relaxed and informal classroom atmosphere. Comments made in the survey indicated that most students would like to see the SMS services used in all of their other modules.

The overall students' feedback seems to easily match the expectations of the School. During an interview, Claire Chambers, the Web and e-learning co-ordinator said that she was highly impressed by the SMS services: "the system currently used is extremely useful in giving students, particularly new students the confidence to interact with their lecturer. It encourages them to engage during lectures, even when in large groups and gives them immediate feedback during the lecture. Of course they are still encouraged to ask questions verbally but the majority prefer the anonymity of an SMS." Claire adds: "In addition, the school benefits from having excellent lines of communication if we need to get an urgent message to the students, for example during bad weather, lecture cancellations or other last minute or urgent messages."

Members of the VLL team, who conducted this study will be presenting a detailed analysis of findings to the School with recommendations on effective running of SMS-enabled lectures and a well managed learning environment. Guidelines and key principles will be produced for use by a broader group than the initial enthusiasts.