Educational Potentials of SMS Technology

Ilker Yengin
*Institute of High Performance Computing (A*STAR), Singapore*

Adem Karahoca
Bahcesehir University, Turkey

INTRODUCTION

SMS technology is a service using standardized communications protocols for transferring short messages between mobile communication systems (Ally, 2009). SMS text messages can be up to 160 characters using 7-bit encoding (Brown, Shipman & Vetter, 2007).

OVERVIEW

Mobile technologies may facilitate collaboration, interaction, accessing, discovering, discussing and sharing information with the use of SMS services (Ryu & Parsons, 2009; Keegan, 2005; Metcalf, 2006). These opportunities are possible because mobile phones have more global usage than many other educational technologies and have less dependency. SMS technology only depends on a service provider in order to connect to the network. The SMS technology is widely available to many people around the globe and very personal to the users. This makes SMS potentially much more acceptable technology by the students and teachers (Keegan, 2006). Many other educational technologies may require additional effort and costs such as having registration, need of extra infrastructure, need of extra device purchase, maintenance and licensing. Mobile phone is used more generally in many schools. Nearly every student own one so there won't be another cost to buy another device to receive the lesson content. Mobile phone and SMS is easier to use and

people are already using these functions for years almost since the first generation mobile phones. Therefore the learnability and adaptation of this technology is much greater. There is no need to have any extra effort to learn something new to operate the device in order to start benefiting it for teaching and learning. Uses of SMS with mobile phones have very different examples of successful implementations in education as in this study also presents. Hence school administrators and policy makers' should consider SMS with mobile phones as another educational technology which has many potential benefits for education.

The potential benefits of this technology are not very recent; they had been already discovered by the pioneer researchers in the field. For instance, Although there might be other research initiatives in the field that could be considered as the pioneers for the use of SMS technology for educational purposes, there were some specific examples of initial projects (e.g. Stone, Briggs & Smith (2002; Traxler & Dearden, 2005) that could be considered as the pioneers due to their findings that clearly informed us about the possible effective applications of using SMS technologies in education. These projects showed that SMS technologies were already there to be effectively used in learning. Considering these projects and their research history on the use of SMS in education and other issues in the mobile learning field, it is possible to presume Andy Stone at Kingston University, UK and John Traxler at University of Wolverhampton as the one of the initial example scholars of the pioneers. Following these initial

pioneers, Mohammad Ally at Athabasca University, CA; Hokyoung Ryu and David Parsons at Massey University, NZ could be considered as the most influential scholars in the field.

CURRENT SCIENTIFIC KNOWLEDGE IN EDUCATIONAL POTENTIALS OF SMS TECHNOLOGY

First of all, in general sense, use of mobile phones in education can enrich the learning experience (Attewell, 2005). Using mobile phones can give freedom and productivity to students by allowing them to study in any place and any time they want, not only in a classroom. Students can receive and send information via short message services (SMS) any-time and anywhere a mobile technology is used for sending and receiving text messages using global or local network-based infrastructures. Use of SMS in education is not a new concept; the idea of use of mobile technology has been discussed before by many authors (Kim, Mims & Holmes, 2006; McGhee & Kozma 2001). Even in last decade, the SMS was using widely by many students. For instance, Swett (2002) reported that in US, 90% of public universities and 80% of private universities have a network supporting wireless technologies. In this article, only SMS message sending and receiving capacity of mobile phones are investigated. Other capacities including use of 3G services are not covered here and are not taken as a parameter in the discussion. Also when referring a mobile phone, a simple 1G based services with sending/receiving text message capacity are referenced. PDA, smart phones and other wireless mobile devices are not considered in this discussion.

Using SMS for Learning

The advantages and/or disadvantages of the mobile phone technology come basically from the capacities of the devices that create the enabling factors.

Enabling factors can be interpreted as the factors that are affecting human learning due to device capacities For example, internet creates enabling factors to learn remotely because it is a technology that provides the opportunity to receive and send data form remote places. Thus, internet itself does not help learning but it creates functionality for us to be able to do a learning task. This is very similar to ideas of Clark (1994) where he advocates that the media does not help learning and does not have any pure learning benefits but it has some methodological and economic advantages. In order to understand the advantages and disadvantages of any technology we should first look its' enabling factors and its' social effects.

The functionalities of mobile phones bring some enabling factors which create advantages. For instance, mobile phones have the capacity of storing information and receiving texts in SIM cards that will allow students to review and edit information later. Because mobile phones give chance to receive information and feedback on real time and on demand it is much more nonthreatening and private than other classroom technologies.

According to one research study, being accessible, context, collaboration and appeal are the main social advantages of using mobile phones (Geddes, 2004). Use of mobile phone is very easy for many students so adaptation of the technology is fairly easier than any other unusual educational technologies (Yengin, 2011). Different than the limited implementation of computers labs or other educational technologies with physical dependencies, when a SMS system is set up and run, it could be delivered to many students. Unlike the many other educational technologies, SMS is a two way technology that allows communication in two ways between teacher to student, students to students and teacher to teacher. SMS can be sent from mobile phones to mobile phones, from a computer to mobile phone or vice versa. Traxler and Dearden (2005) indicates a surprisingly interesting fact that most of the educators are not aware of the possibility of sending bulk SMS text

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