

Text messages: a first step towards mobile learning

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Abstract

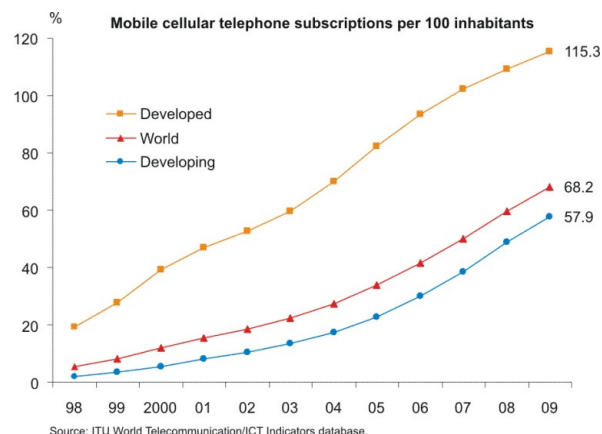
In this paper we present a new project in which teachers use mobile learning to support their face to face training. The focus of our research is the impact of adding an extra channel, like sending smses, on the learning process.

Not all students have access to a pc or the internet on a regular basis but mobile phones are (almost) always at hand. Therefore teachers at CVO Antwerpen-Zuid, a regional centre for adult education with 5000 students, decided to send text messages to students' cellular phones in addition to face-to-face learning. They employ an in-house developed software tool named 'Comix'. That device is already used by the management and the secretary to notify the students in case of absence of a teacher with a text message on their mobile phones.

In this new project the content of the messages is different: they relate to content (a definition, a word,...), course management or an assignment. The teachers send a couple messages a week, limited in characters. The students get the opportunity to respond in a face-to-face context to the messages, which will be useful for the evaluation of the experiment. In this work-in-progress technical aspects and costs will also be taken into consideration. When the outcomes are predominately positive, mobile learning can be used at a larger scale at the Center.

Introduction

The mobile business booms. Not only in Western countries but it's a worldwide phenomenon. Some say that the average woman in Sub Saharan Africa touches her hair 37 times a day but she checks her cellphone 82 times a day.[1] Others claim that even in the face of the current global financial crisis, most data show that the Chinese economy continues to grow, and the numbers are staggering: China, with a population of 1.3 billion, has over 100 million middle-class consumers, 300 million Netizens¹, and more than 600 million mobile phone users.[2] Moreover statistics show that the internet use increases gradually but compared to the use of cellular phones, the internet appears to be outdated. (Fig. 1 & 2)



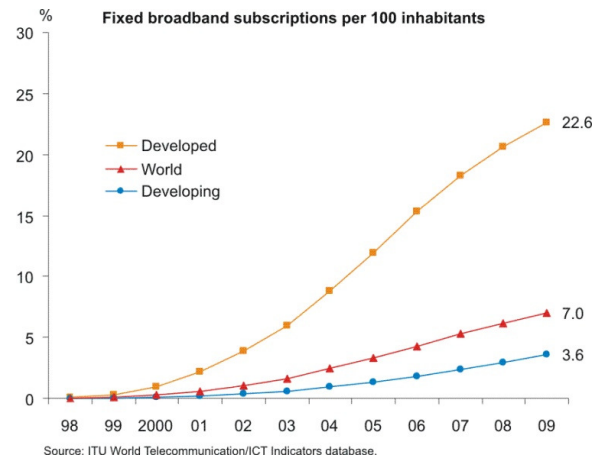


Fig. 1 Fixed broadband prescriptions per 100 inhabitants

Fig. 2 Mobile cellular telephone subscriptions per 100 inhabitants

Instead of disregarding this phenomenon, the teachers at CVO Antwerpen-Zuid, a regional centre for adult education with 5000 students decided to embrace it.

The concept: short and fast texting from computer to mobile phones

At the moment the new project is still in a testing phase. During this one-year experiment teachers can send text messages to their students' cellular phones. Our current research benefits from a former experiment, namely the development of an in-house software named 'Comix'. Technical flaws were solved along the way by the IT-department of the school.

'Comix' is normally used by the management and the secretary to notify the students in case of absence of a teacher. A short text message containing up to 158 characters is sent from a computer to a mobile phone. 'Comix' is linked to a central in-house developed database containing all relevant information about students and teachers, including their mobile phone numbers. Before sending the text message, the user has to define the recipients by selecting a course module and automatically the names of the students registered for that module appear on the screen. Selection and de-selection or even adding of names is possible.

The procedure in this new project is slightly different: teachers and not the management or the secretary are the senders of the messages. In the whole process there is an intermediary who does the act of sending because 'Comix' is only installed on a few computers in the school.

Also the content of the messages differs: they relate to content, course management or an assignment. Content messages could contain a definition or a word, e.g. 'Normalization: you can find another definition here: <http://support.microsoft.com/kb/100139>. Have fun, Peter' or a short poem 'The Creeping Sleeping Bag. One day when I slept on a slope my sleeping bag crept downhill and I invented the phrase 'it crope'.' Course management applies to agreements, reminders, etc. 'Don't forget to finish your homework.' or 'Next week we will learn about the imperfectum.' are typically related to course management. By sending text messages the teacher can also give assignments, e.g. 'Read a newsarticle this week.' or 'What are you doing right now? Tell us about it in class.'

In this project we add a feedback opportunity by offering students to react to the messages in a face-to-face context. The teacher can clarify a message that was not or misunderstood or collect responses for evaluation purposes. Those experiences will be analysed after the testing period of one year.



In addition to 'Comix' a teacher can decide to send messages also as e-mail by using the learning platform 'Dokeos'. That way we also reach students who do not have a cellular phone. 'Dokeos' functions also as control mechanism in our investigation. The effect of sms versus e-mail can thus be tested.

Approach

The objective is to find an extra channel for reaching students in order to enhance the learning effect. Instead of developing new tools, we chose to use devices familiar to all actors in the process, from sender to recipient. Time-consuming development of new software or collecting new data was no option. Neither was the requirement of advanced technical know-how. Short, easy access and userfriendly, those are the mantras in this new project. 'Comix' and cellular phones fit that profile. But do they really or are we assuming that? That is the focus of our new project.

Factually the messages are short: the teacher can send up to 158 characters and is therefore compelled to formulate to-the-point messages. Will that foster willingness to read them? Is the length of the message also a determining factor for the outdatedness of the e-mail?

The effect of the message correlates with the access to the tools used in the communication process.

On one hand there is 'Comix' and 'Dokeos', the latter being not the main focus in our research, and on the other hand the mobile phone. 'Dokeos' is accessible with a password from outside the school. 'Comix' on the other hand can only be used in-house or through VPN and is installed on a very limited amount of computers. An intermediary is thus indispensable for doing the actual sending of the messages. Can that be the bottleneck in the end? We presume not. The installation of the software is possible on all computers. Moreover the use of an intermediary is vital in this testing stage since that person collects all messages and additional information like time of sending, group of receivers etc. in a database. That will benefit the evaluation. On the other hand cellular phones are mobile, so the text messages are not that highly context-related as e-mails or other means of communication from a distance. The extensive realm can add up to the surprise effect. Nowadays that assumption is becoming outdated with the growing use of iPhones and Blackberries but those communication tools are rarely used by our target group. Therefore they lie outside the scope of our investigation.

Accessibility is thus relatively high, not only physical but also intellectual. Advanced technical know-how is no pre-requisite. 'Comix' and 'Dokeos' are in-house developed tools. The technical flaws are solved along the way and the users built up practical experience. A point of attention for the teacher is the accuracy of the data, especially the telephone numbers, which have to be checked in the classroom. Mobile phones on the other hand are also quite familiar to everyone. All the tools and devices in the process are thus userfriendly.

Important variables in our investigation are the nature of the message, the age of the students, their gender, the course and the actual time of sending (e.g. before or after a lesson). Since this is a work-in-progress we might add other variables along the way.

Conclusion

By texting urgent messages to cellular phones we have discovered a fast channel to reach students. Our main topic of investigation in this new project is the enhancement of the learning effect through that channel.

When the outcomes are predominately positive, mobile learning can be used at a larger scale at the Center and other channels like Twitter, Facebook, etc. tapped.



References

- [1] Silvester, Simon, 'Mobile Mania', *Young & Rubicam* (<http://pubs.yr.com/mobilemania/>)
- [2] Brown, Millward 2008, *The Global Brand*, New York