Chapter 11

Text Input and Editing as a Bottleneck in Mobile Devices for Language Learning

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ABSTRACT

The introduction of mobile telephone technology has been accompanied by a surge of activity in MAL (Mobile Assisted Learning) and MALL (Mobile Assisted Language Learning). The convenience, access, ubiquity, and flexibility of mobile devices is starting to have an impact not only on the provision of technology-enhanced language learning, but also on the materials which it generates, including JIT (Just In Time) learning, undertaken for short periods as opportunities present themselves during the course of the day.

The situation has recently been compounded by the release of a number of tablets, which are situated between mobile phones and laptops.

The multimedia experience of MALL, especially its capability to handle authentic audio and video, have made it an attractive and potentially powerful component of the language learning experience. However, the benefits of MALL are—as with other mobile technologies like the tablet—emphatically on the access and consumption side. Mobile phones have some, but restricted, usefulness for practising speaking. But most of all, they have complex and somewhat compromised capacities for writing (for text input and editing).

This chapter examines the technical, ergonomic, and cognitive implications for MALL for text input and editing with special reference to the mobile phone, but also in relation to tablets where they are relevant to the argument. It examines a number of options and their implications, and it presents a set of specifications which, if met, will allow mobile devices and MALL to play a fuller role in the writing aspect of language learning.

DOI: 10.4018/978-1-61350-065-1.ch011
INTRODUCTION: MALL, MOBILES, AND THE LEARNING EXPERIENCE

The convergence of the mobile phone and the laptop and desktop computers—or rather, the partial usurping of the laptop/desktop functionality by mobile phones—has created a potentially powerful tool and medium for learning in general (Ally, 2009; Danaher et al., 2009; Godwin-Jones, 2008; Herrington, 2009; Pachler et al., 2010), and language learning in particular (Cui and Bull, 2005; Kukulska-Hume and Shield, 2008). The mobile phone contributes connectivity, mobility and convenience, together with interactivity. From the laptop, and the larger computers behind it, we have full multimedia, storage and networking, allowing access to the wider domains of scholarship and research. Making mobile devices able to access the Internet has filled one of the remaining gaps between the two families of IT devices. Mobiles are expected to usurp many of the functions of laptops and desktop computers within a few years, especially since tablets, which sit unstably in the space between mobile phones and laptops, are starting to make an impression on both these areas of computer use (Chen, Chang & Wang, 2008).

If the computer allowed the learner to choose about emancipation from the time and space of the classroom, and if wireless networks emancipated users from the need for a physical connexion to the Internet, then mobiles have taken the process a step further in convenience and portability. GSM networks enable unscheduled learning, in small time slices and as opportunities become available. This m- or mobile learning environment is still largely without theory and models, which are being developed bottom-up by practitioners, and to some extent top-down, as e-learning materials and practices are re-purposed for m- use. Supporting learning in this less structured space remains problematic, especially since so much of the onus is now placed on the learner to make sense of the material, discover a means of learning it, and assessing when it has been learnt. Access, interactivity and multimedia on m-devices present splendid opportunities, at least in potential, for new modes of learning.

The downsides of mobile devices, however, are also significant. They include storage, processor speed and capacity, screen size and dynamics, and perhaps most significantly the issue of input and editing, whether of text, graphics, audio or video. In a multimedia interactive enterprise like Mobile-Assisted Language Learning (henceforth: “MALL”) these issues could potentially prove very limiting, and could restrict MALL to a corralled corner of the IT-enhanced language learning spectrum (Cabrero, 2002; Kiernan, 2004; Kukulska-Hulme, 2009; Petersen et al. 2008; Stockwell 2007; 2008).

Mobiles are already strong on the delivery of text, graphics, audio and video, and for the interactive transmission of these media, so long as the processor is not expected to undertake intelligent processing. They are also effective for the input, recording and transmission of audio and video. These features make mobiles suitable for three of the four language functions (listening, speaking, reading).

Writing is the problem, and this is the focus of the present paper. Mobile devices are not strong when it comes to text entry and editing.

There are effectively three options. One is to keep the mobile device as a minor vehicle for text input and editing, and to continue to use laptop or desktop computers for this purpose, with the mobile phone being reserved for short messages like SMS and tweets, and for interactivity using wireless networks. A second option is to add a portable keyboard so as to combine the functionality of a mobile phone with that of a laptop or desktop. A third is to explore ways around the limitations of current keyboard functionality on the mobile phone.

This chapter presents an analysis of the problems and issues of text input and editing on mobile devices. A number of proposed options try to work