

IDEAS TO THE SPECIFICATION OF THE mLMS REQUIREMENTS

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1. Introduction

The specification of mLMS requirements is primarily the task of partners who have large scale experience not only in elearning but in mlearning development as well. The contribution of BUESPA consists of the highlighting of requirements of its own market, even if these requirements prove to be universal later on.

Considering the requirements of the market as starting point of the specification, the first choice concerns the potential target users BUESPA has access to. The target users basically determine the modules to be developed, as well as the devices and technologies to be used.

2. Target users and definition of modules (courses) to be developed

One of the course materials we plan to develop aims a relatively small group of people but with the potential to afford a relatively high level of equipment, IT-auditors. These people are able to use the latest technology and they are also interested in it, since it can ease their work. A mobile device, in contrast to a laptop computer, does not disturb the eye-contact between the auditor and the auditee during an interview.

By consequent, our plan related to IT-audit is to develop complementary materials to our normal IT-audit courses. The complementary material aims to refresh the knowledge gathered during the normal courses, and to serve as a summary helping auditors during the actual interviews. The auditors can review the knowledge transferred by the courses in their residual time, during a travel for example.

The other planned course material is related to SAP courses. We are currently delivering SAP courses in the framework of regular university education. These courses include knowledge which does not require the direct use of computers at all. These elements of the courses can be ported into mobile form.

As we mentioned in the case of the IT-audit course, a summary of normal courses is a straightforward application for mobile learning. The mobile learning tool can however be useful even in front of an actual computer where the real use of an application is practiced. The parallel display of the summary of the steps to perform and of the actual application is of course feasible with window based operating systems, but it is usually cumbersome and disturbing. One solution in case of presentations for large audiences is the simultaneous use of two computers with two projectors. In case of a single person practicing in front of a single screen, the parallel use of a mobile device for following the steps to perform on the computer makes a lot of sense. It is certainly more space and cost effective than the use of two displays side-by side which can also be managed by graphics cards.

3. Definition of devices and technologies to be used

Considering the education scenarios described above, our target groups are IT auditors and our regular students. The first group is able to purchase the latest devices whether PDA-s or smart-phones which regular students may not always afford. For this latter group mobile phones are more familiar devices than handhelds. Our assumption is that the common devices suitable for both groups are smartphones. These are not wide-spread today, however, the dynamic development of the market allows us to forecast their spread in the near future. Considering the advance of technology, we chose one of the multi-purpose devices with the most advanced features available today, the Sony Ericsson P900. The functionality of this device is near to the PDAs, the screen size is almost the same and it has Internet-connectivity in contrast to a regular PDA.

The above choice of device relates to the test equipment for the project only, since the most important principle governing the general choice of devices and technology the mLMS should support is that they should make it accessible to the widest possible potential audience both from the availability and the affordability points of view. This means that the mLMS should be device- and platform-independent. This requirement is satisfied by HTML on which the NKI Learning Management System (LMS) SESAM is based.

4. Specification of mLMS

An LMS and by consequent an mLMS must involve the following types of authors:

- technical experts knowledgeable of the way the mLMS can be made device- and platform-independent using technical standards like HTML, XML, CSS, W3C Device Independence Working Group guidelines, etc...
- usability experts who are knowledgeable about ergonomics and software quality standards like ISO 9241, ISO/IEC 9126,
- learning technology experts who can make the mLMS compliant with learning technology standards like SCORM (Sharable Content Object Reference Model), CEN/ISSS WSLT, IEEE LTSC, IMS Global Learning Consortium, etc...
- educational, pedagogical experts knowledgeable of designing appropriate educational processes into the mLMS,
- teachers who actually create the learning content.

The specification of the mLMS should consider all of the above issues.