Mobile Learning – Reality or Hype?

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This paper analyses the possible ways of using the mobile technologies in learning and intends to support or ruin the use of the phrase "mobile learning", distinguishing between the reality and hype. The mobile learning phenomenon is treated on three levels: individually, institutional and during practical activities, in certain fields of activity. The benefits of using mobile devices in the learning process are revealed for each of these three levels. There are also presented the aspects needed to be taken into account by the creation of digital content to be delivered using mobile technologies.
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The necessity of remote access to education can be considered a constant throughout time. Until recently in the history of mankind, in order to benefit from the knowledge offered in a small number of centers, people had to go to those particular places themselves, bearing significant expenses – nevertheless, the opposite situation also existed, that of the mountain which came to the … public, by means of the apostleship. Starting with the second half of the 19th century, a series of factors contributed to the facilitation of distance education. One of them is represented, in a first stage, by the postal services, which gave birth to distance education. Later on, the radio and the television became established as infrastructures. The aspect of distance education was significantly changed once the computer emerged. The decreasing costs of personal computers, together with their connection to a global network, resulted in the emergence of electronic learning.

Adapting the question in the title and trying to provide an answer, we esteem that electronic learning is certainly a reality. The phenomenon became established in the contemporary landscape first of all due to the "classic" advantages offered by the Internet, such as cheaper access to education, anytime and from anywhere, for a larger number of people. It also some other benefits, complementary, in a way, that reside in the growth of the courses capability to attract due to the inclusion of multimedia techniques in their presentation, the possibility to rapidly modify the courses by adding the latest information, simulating virtual classes using the communication technologies, classes that are able, at least to a certain extent, to replace the discussions and the emulation occurred in the presence of a teacher in flesh and blood.

In the present study we are trying to analyze the possible ways of using the mobile technologies in learning and to support or ruin the use of the phrase "mobile learning", distinguishing between the reality and hype.

To give an extremely concise definition, mobile learning refers to the use of portable devices in learning. Adapting a definition given by academician Mihai Drăgănescu for the concept of e-learning[1], mobile learning can be achieved in the following ways:

- individually (using materials downloaded from the mobile Internet or stored in the increasingly larger memory of portable devices). Unfortunately, unlike the situation of e-learning, the possibility to use CD's or DVD's containing information disappears, as a result of the deficiencies shown by mobile terminals;
- at an institutional level – in schools, universities, enterprises or foundations. In these environments, mobile learning will not have, at this time, the same impact as e-learning, and it can only be considered an extension of the latter;

[1] Drăgănescu, M., *De la societatea informaţională la societatea cunoaşterii*, Ed. Tehnică, 2003, p. 115

- during practical activities, in certain fields of activity. Mobile learning will support, in this case, the growth of knowledge workers competencies. Unlike e-learning, mobile learning does not lend itself to a widespread use, in every field of activity.

At an *individual* level, the use of mobile technologies can determine the growth of teenage students' interest in learning, since the learning process could be more … intimate, the mobile phone can be more attractive than a book – at least at certain ages, and the collaboration and the change of opinions with other students who use mobiles for learning is favorable. Regarding the adults, mobile phones can eliminate the fear of computers, which are unfamiliar to many of them. For children, the similarity with the PlayStation-type games can be helpful, attracting them towards educational activities that are more appealing for them. Getting from the above-mentioned reality zone to the … hype zone, it seems that mobile learning will receive new meanings when concerning the Internet. Therefore, it is anticipated that in the (not) very remote future, things that are connected by means of networks, such as buildings and trees, will be able to send to individuals' mobile devices information on the history or species they belong to, thus significantly changing the learning process.

For *universities*, mobile learning is an alternative due to the following reasons:

- It can replace the possible lacks in the students' qualifications. Nowadays, more and more students have a job and they do not attend the traditional courses full-time. Moreover, the educational past of many of them is not compatible with the current field of study, requiring supplementary explanations for certain concepts. The missing lessons or the supplementary explanations can be found "ready-to-learn" on the Internet, on the Intranet of the education institution or, as the best case would be, they can be provided by the teachers who deliver the seminars using mobile devices. Apart from providing the information itself, mobile technologies can also transmit indications regarding the place where the information can be accessed – thus using the teacher's contemporary role as a guide for finding informational resources, rather than the one who utters the information. The shortest the time the content is actually transmitted, the longer the time left for the student for a critical analysis and reflection;
- It can extend the learning process beyond the standard number of academic years. If interested, graduates can be informed on the latest news emerged in a certain field by the same teachers they had during the university years;
- It can support the partnerships between universities and industries. Teachers can deliver the latest tendencies in their area of interest, by means of mobile training sessions, to the employees of certain institutions that have signed such agreements;
- It offers them the opportunity to address to the students using a channel preferred by them, reducing the cultural and communication obstacles between the two sides.

Mobile learning is suitable only to some *fields of activity* – particularly to those which imposed the extensive use of mobile devices. It has already become a truism the fact that all the jobs in the 21st century are influenced by the tendency towards mobility and almost any employee in an organization can be, to a certain extent, a mobile one. The reasons for this situation are the flexibility of the working hours, the increase in the necessity for fieldwork, the extensive geographical area where big corporations carry out their activity nowadays. Nevertheless, there are occupations where mobile information plays a higher part than in the others. For example, the sales staff is directly interested in acquiring more and more knowledge about their own products. Since most of their activity consists in fieldwork, they can use the lost, waiting time for learning about the products or services they sell, using the mobile device. Journalists can inquire immediately about a certain subject – for many of them, the rapidity in accessing the investigated information is essential. Also, inquiring about a certain disease or a given medication right where the intervention takes place can be very useful for the medical stuff from the ambulance ser-

vices. In this situation, the rapidity of accessing such information is literally a matter of life and death.

The success of the mobile learning process depends mainly on the quality of the informational content delivered to users. The content created in order to be delivered by means of mobile devices can consist of the following:

- information in audio format (voice, MP3 files);
- images (photos, logos);
- video (movies, animations, recordings);
- text (explanation of concepts, lessons, description of products etc.).

The creation of digital content to be delivered using mobile technologies must take into account the following aspects, related to those whom the information is addressed to, their needs and the nature of their occupations:

- the degree of interactivity (will the content be static or dynamic?) It must be taken into consideration that the interactivity of the content delivered in a mobile environment is limited due to the characteristics of mobile devices – small screens, keyboards that are rather difficult to use, and any exaggerations regarding any request for answers from the user can be inconvenient. Since interactivity is an essential method for arousing the interest of the one who assimilates information, and meeting the highest levels of education (articulation, analysis and synthesis) can only be achieved by the preoccupation and implication of the person involved in assimilating the information, we consider that it is difficult for the mobile informational content to meet these requirements;
- the degree of personalization (will the content be general or adapted to each individual's needs?). For any form of distance learning, it is essential for the studying material to be *highly student-oriented*. It must leave the impression that the education system addresses to every individual, in a personalized manner. Therefore, the informational content must not be rigidly presented; it needs to be explained, evaluated, adapted, in such a way so that the student feels permanently supported, even when a direct guiding person is missing. Information must be presented in a flexible, organized and coherent manner. It needs to give the individual the opportunity to use it according to his/her learning approach. It must be taken into consideration that, many times, students attending distance-learning courses belong to all age categories and to all social environments. The delivery of a mobile content adapted to each peculiar need can be expensive, but it is worth trying – thus, the most important characteristic of a mobile device is exploited, that is, its strongly private character;
- the degree of formalization. Since the informational content delivered to one's own mobile device is regarded as being personal to a certain extent, individuals could prefer a more informal presentation. Text and graphics could make room for audio files, animations and movies;
- time dependence (the emergency to find out the symptoms for a disease is significantly different from the emergency to consult a dictionary, for example). Content update is an essential requirement in mobile environment, because mobile learning implies completing the individuals' knowledge above all, rather than the systematic assimilation of large amounts of information. Users will look for the proper information at the proper moment and will rely on its immediate delivery, upon request;
- frequency of use (will the information be used once, several times or a lot of times?);
- the format in which content is delivered (a text document or an executable application?) It must be taken into consideration that not all mobile devices can run complex applications. The possibilities for showing the content are much less spectacular in the mobile environment, as compared to the electronic one;
- the price. Informational content must be delivered at a reasonable price for its users, without overwhelming them;
- externalities (who wins and who loses if the content is consumed?) – for example, positive externalities can be achieved by recommending that specific content, and negative externalities are obtained by breaking the

copyright). The speed at which information spreads in the mobile environment, added the individuals' habit to exchange music and images among them, can determine the deterioration of the informational content delivered, due to its excessive spreading.

The adjustment of answers to the needs of the target-group is essentially responsible for the success of the process of information made by means of mobile devices. When it is correctly implemented, mobile learning has several definite advantages. To resume, we appreciate that the learning process can be:

- more collaborative (thus, the main function of mobile terminals, that is, communication, is exploited);
- more contextualized (mobile content can be delivered in small "rations", that each of them being necessary to the user at a given moment or according to his/her presence in a given place);
- more flexible (accessible at any time and on extended geographical areas due to mobile Internet);
- more personalized (individuals learn at their own pace);
- more spectacular (by interacting with objects connected within a network, that transmit information about themselves);
- cheaper (the required hardware equipment is not the most expensive).

In conclusion, analyzing the way in which mobile devices are used individually, institutionally and vertically, as well as the characteristics of the mobile informational content, we appreciate that, in reality, we are rather dealing with the use of mobile technologies in order to inform on certain topics, the concept of "learning" – which involves a coherent and systematic action – being somehow exaggerated. Mobile information is welcome when completing the knowledge acquired in the traditional or electronic environment, but the capacity of mobile information to fully replace traditional learning is still extremely questionable. From a pedagogical approach, if the acquisition of knowledge and the understanding of the concepts presented are possible in the mobile environment, the application, analysis and synthesis stages are more difficult to perform. The feedback of the individuals, which is crucial for learning and evaluating the results of learning, is difficult to be acquired using the mobile environment. There is no doubt, nevertheless, that, as an extension of electronic learning, mobile information represents a tempting reality for the individuals, education institutions and other types of organizations, but, for the time being, its role must not be overestimated.

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