

# **MOBILE LEARNING: EXTREME OUTCOMES OF *EVERYWHERE, ANYTIME***

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## **ABSTRACT**

Mobile learning, if considered in its most enthusiastic versions, promises to transform the world of learning. It seems that mobile devices will lead to overcome the narrow limits of the classroom to achieve ubiquitous learning. But if we analyze critically the promise of the everywhere, anytime, suspending judgment on its feasibility, interesting pedagogical issues arise: the relationship, on the one hand between formal and informal dimensions of learning and, on the other hand, between learning and information.

## **KEYWORDS**

Mobile learning, hypnopædia, learning, information

## **1. A REVOLUTION IN THE WORLD OF LEARNING?**

Mobile learning studies the possibilities offered by mobile devices, smartphones, tablets, mp3 players, and in the future, smartwatch and smart glasses in order to obtain improvements in the learning field. This is certainly a narrow technocentric definition, but it is useful, for our purposes, in trying to understand not just mobile learning in itself but the ‘advertising slogan’ associated with it. In addition to the interesting applications in the field of education, the most enthusiastic of scholars have begun to think that this innovation will lead to learn in every place and at any moment. The slogan of ‘everywhere, anytime’ has been so widespread, especially in the early days (Attewell and Savill-Smith 2005). The temptation to exploit the pedagogical potential of such devices is in their distribution (Prensky 2005): we all have a smartphone with which to connect to the internet and thanks to which you are always reachable. The ubiquity, understood as omnipresence, is the value of mobile technologies, their most striking feature but at the same time, from a pedagogical point of view, it’s the more insidious challenge of mobile learning.

## **2. DIDACTIC AND PEDAGOGICAL READING**

Mobile learning can be approached by at least two points of view. The first approach, the most immediate, sees in mobile technologies a didactic object. Tablets, smartphones, mp3 players are tools which we are able to configure in a more or less fruitful way: we must clarify and reflect on *what mobile learning enables us to do*. The questions that arise in this context are: what are the benefits for learning? On which occasions it is a valid alternative to methods that we already employ? The argument about usefulness for teaching/learning becomes a critical part in assessing application, to view and assess their authentic educational purposes, whatever they are for the various researchers.

But the survey can also go beyond this, considering the most naive slogan to highlight paradoxical results. In this regard a pedagogical opportunity arises, to investigate *what mobile learning enables us to think*: about the relationship between formal and informal, between learning and information, and perhaps even about the concept of humanity that we encounter at the foundation of *everywhere, anytime*. If we want to give a complete picture of learning at the time of smartphones and tablets, we should integrate research on the didactic object with the reflection on pedagogical issues underlying.

### 3. ANTINOMY BETWEEN FORMAL AND INFORMAL DIMENSIONS OF LEARNING

An interesting way to deal with mobile learning as a pedagogical opportunity lies in bringing up the extreme consequences of the promise of learning *everytime, anywhere*, suspending for a moment the judgment on its feasibility, in order to make evident the antinomy that undermines the coexistence between the formal and informal dimensions of learning. Mobile learning is not, per se, antinomic but it can become so, if presented as the means through which we transform every place and every moment of daily life into a possibility of learning. We need to remember that learning has always been potentially "omnipresent": wherever the individual is and in every moment, at school, in sports, between friends, etc., one can have experiences that lead to develop some kind of learning. But the slogan of the ubiquitous learning fails to distinguish between the various dimensions of learning to the point that it seems to conceal not so much a desirable synergy between formal and informal, as far as a colonization of every moment of the day by formal content. The antinomy of the mobile learning contrasts formal learning (understood in a strong sense as "intentional") and informal learning (understood as "unintentional").

This antinomy is born out by the following slogan:

*"mobile learning revolutionizes the world of learning by allowing you to learn in every place and at any time of the day"*

If we accept, hypothetically, this affirmation, the following alternatives spring out:

1) smartphones convey the formal. Learning is omnipresent: everything is formal learning, understood, in a strong sense, as "intentionally designed".

2) Smartphones concern the informal. Informal learning is becoming ubiquitous because the label of "informal learning" is often attached to the delivery of information or services by means of mobile devices. Learning is extended outside of the classroom, but at the same time its meaning is 'diluted'.

In other words:

1) If mobile devices represent an instrument to learn, always and in every place, they will be enabling the exasperation of the formal dimension: for example, it will be possible to learn, listening to podcasts, while you are waiting for the bus, while you are in the queue to the bank or while jogging (Coens et al. 2011). It is the ideal of multitasking: to be able to learn without effort or loss of time, while doing other things, exploiting the "stolen moments" (Metcalf 2002). The coexistence between formal and informal is put in crisis from such a strong position, leading to the colonization of the day by formal content, intentionally designed.

2) There is a need to consider whether such a scenario would be accepted by the parties concerned, kids or students in general, that could, for example devote themselves to study only at particular times, i.e. when they can concentrate (Shudong and Higgins 2006; Lee and Chan 2007; Sutton-Brady et al. 2009). Furthermore assuming the first alternative there would be an invasion in their personal lives and their own pace. The response to the novelty of mobile learning could then consist in rejecting formal contents in institutional places (away from everyday life), by prohibiting for example the use of smartphones in classrooms. Mobile devices would continue to be used as mere tool for entertainment and conversation, activities which on some occasions may lead to a learning process. In this case, the affirmation of an ubiquitous learning, which takes place in an incidental way, would not give to the smartphone a revolutionary significance and it would be a way to ignore the potential of new technologies for educational purposes (Parry 2011) reiterating the obvious fact that it's possible, potentially, to learn in every place and at any time (both in institutional places and during every day life). Then the real alternative to the first position cannot be this one. The way of interpreting the omnipresence of learning in an informal sense, keeping faith in the 'revolution' announced by the slogan, draws instead an origin from the possibility of receiving, in every moment and in every place, informations and services directly on your own mobile devices. In classifications proposed by some scholars we can notice how under the label of "informal learning" are listed, among other things, experiences in which learning is often reduced to the delivery, in any place and at any time of day, of support information: frequent advice, for example, to lose weight or useful information for patients in treatment for breast cancer (Frohberg, 2006; Naismith et al. 2004). But accepting this alternative raises the issue of the pedagogical significance of learning and of the relationship between learning and information or between knowledge and information (UNESCO 2005). On the other hand it is not to ignore the importance of the *everywhere* understood as the possibility to reach people who would be otherwise unreachable with administrative and academic support, for example, in certain villages of Africa

(Brown 2008) and of the *anytime* understood as a support to the teaching of a foreign language, since it allows us to overcome the limitations of reduced school hours dedicated to the activity, through continuously sending translated definitions and expressions to the students (Ogunduyile Abimbola. O 2013; Motalebzadeh et al. 2011). But in both these cases ubiquity affects the learning support, more than learning itself; this, perhaps, is also due to the poor technology used (sms).

#### 4. CHANGE OR REVEAL? THE PARADOX OF THE HYPNOPÆDIA

Contemplating the two faces of the antinomy it seems clear that the slogan of *everywhere, anytime* is fashioned on an idea of frenetic activity: every moment of daily life is reconsidered in the eyes of the continuous learning. But the natural consequence is an overlap with other daily activities. It often returns, in similar studies, the idea of doing two things simultaneously, multitasking, thus avoiding 'losing time'. This is not a new idea: for example, Sumner (1990) asked whether it was possible to learn while commuting. It would thus be an ubiquitous learning, a sort of 'daylong learning', another thing compared to the lifelong learning, which would outline, according to some, a true transformation of learning (and therefore it is not a trivial observation that "every moment of the day offers, potentially, a learning opportunity"). Then it would be difficult to distinguish learning from what is not learning: "The challenge will be to discover how to use mobile technologies to transform learning into a seamless part of daily life to the point where it is not recognized as learning at all" (Naismith et al. 2004, p. 5). Here we could draw a parallel between the world of technology and learning: the tendency of technologies in recent decades is, in addition to being ubiquitous, also to go towards "the disappearance" (Streitz and Nixon 2005). So learning should, in addition to becoming all-pervasive, also, in a sense, 'disappear'.

The *everywhere anytime* also invites us to dwell on the relationship between pedagogy and technology: what comes first, the learning theories or the innovations that make them possible? Probably they influence each other (Crompton 2013). But the situation might change if we look at slogans (at an emotional level).

Let us look at two examples. In an empirical study (Caron and Caronia 2008) the importance of the cultural aspect in the successful adoption of "iPods" is investigated, i.e. what students think about education and what they think about the mobile devices. Are the same convictions that push researchers to be optimistic? The research is quasi-experimental and starts from the question *what happens when "iPods" are introduced into otherwise traditional university courses?* It was carried out by five university professors who had agreed to use mobile devices as a teaching tool and 123 students from 3 different faculties, during 4 months. The podcasts, audio/video, were prepared by teachers and their listening was optional: students were not required to listen in order to pass the exam. Students were asked to freely use their mobile devices in their daily life in order to evaluate their habits. The data were analyzed both quantitatively and qualitatively. Quantitative data show that only 9% of the daily use of the "iPods" had an academic nature and only a fraction of these was made by listening and viewing in mobility: for most of the sample the main use of the podcasts took place at school or home, not overlapping with other simultaneous activities. The 91% of the uses was linked to leisure and social networking. The qualitative analysis of opinions of the students, expressed in focus group, logbooks and individual interviews, was useful to better understand these outcomes. Reasons why students do not use podcasts in multitasking version are interesting: it's difficult to remember what it was listened or viewed and to stay focused; the screen was too small and it was dangerous doing two things at the same time, for example while walking. The *everywhere, anytime* instead does not encounter obstacles when it comes to listen to music while you do other things. Two other reasons for the low use of mobile tools are: the quality of the podcast (formatting issue) and, especially, the optional nature of the podcasts (they did not contain essential information for the most important objective: to pass the exam). The results of the research according to the authors demonstrate the dissonance between two cultures: students have a vision of passive transmission-reception of knowledge and see the mobile devices an instrument of fun, while teachers and researchers wish to support the use of mobile device based on a socioconstructivist model of teaching/learning and the continuity pattern in education.

An Australian study reaches similar results (Lee and Chan 2007). The authors investigate the use, for distance learners of audio podcasts to convey additional learning material which do not affect the final evaluation but helps learning in addition to the lessons. The researchers hypothesized a high degree of "lifestyle integration". This should be the "true" extra value of mobile learning: a greater integration with

everyday life, in non-intrusive way, even while you work on other tasks. This is a case-study conducted on 18 students (both undergraduates and postgraduates). The podcasts to be listened, one new episode available each week over a semester, lasted 3-5 minutes each one and were made with a "relaxed and informal style". The results are positive with regard to the adoption and effectiveness perceived of podcasts but show at the same time a low utilization *everywhere, anytime* despite the informal and talkback-radio style. To understand in more detail the reasons, a series of follow-up interviews with 12 students has been conducted. Also in this study effective multitasking does not occur because students treated podcasts as an activity of "formal" learning which required attention, concentration and a predetermined location (for example, at home).

In both of the above mentioned studies it can be noted how the true multitasking use for students concerns listening to music. The aim of transfer this type of use to a context of learning may prove more difficult than expected. The ideal of multitasking sustained by some scholars is in contrast not only with what students actually want but also with the negative outcomes that multitasking has on actual learning (Kuznekoff et al. 2015). Also the myth of digital natives, closely connected to multitasking (Prensky 2001), seems to go beyond the reality of the facts and the world of real students (Selwyn 2009; Helsper and Eynon 2010). It can be assumed then that technology does not change learning but, when we talk about slogans, it reveals something that was already there: some old ideas has been projected onto the new possibilities offered by smartphones and tablet. Selwyn says that "many of the claims made for educational technology are often more of a matter of faith than a matter of fact" (2011, p. 169). Mobile devices would be, in our case, the pretext to bring back in vogue an old dream, from which the *everywhere anytime* derives. In fact, it is true that many skills are acquired in a unintentional manner and, consequently, we often have skills that we may not be aware of, but behind some slogans and statements related to mobile technologies appears to be hiding something different. The final outcome of a certain enthusiastic way to consider mobile learning might be paradoxical: the hypnopædia. A spasmodic activity, and a desire to learn always without wasting the dead time of the day, hides the temptation to make learning all pervasive, until, by exaggerating the concept, an assumptions from past decades, unproven and probably unprovable: that one can learn during the moments more distant from conscious activity, during the time that we daily spend/waste on sleeping. It would not be, after all the first time that technological innovations propose, perhaps unconsciously, themes and ideas born many years before, with old technologies (Wartella and Jennings 2000; Selwyn 2011). The excess activity would result in the desire for passivity, in a sort of mock sleep.

## 5. WAYS OUT TO THE SNARES OF THE UBIQUITY

*Everywhere, anytime* if accepted and brought to its extreme consequences leads to pedagogical issues: the relationship between the learning contexts and also the meaning of learning. In this it is shown to have an undoubtedly positive value, illuminating some classical questions. In the light of critical reading, however, ubiquitous learning becomes resized: it is possible to learn only under certain conditions. Learning through mobile devices, in order to be meaningful, may not materialize into 'daylong learning' but requires a mediation that, for example, understands how to create bridges between the formal and the informal (Pachler et al. 2010; Sharples et al. 2007). Some of the experiences of mobile learning seem to confirm the promise of *everywhere, anytime* but it is, on a closer inspection, a misunderstanding: information and services are *everywhere*. It is necessary to recover the sense of learning not as a mere "delivery" of information but of personal elaboration able to "go beyond" the informations given (Bruner, 1964). Indeed, by extending learning to every moment of the day and every place by means of mobile tools, its meaning and power risks being diluted.

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