

The opportunities and Difficulties for M-learning to Enhancing students learning results

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Abstract: Under the social change that rely on technologies that create new Difficulties and challenges for universities, this paper considers the possibility of mobile learning and a subset of e-learning to influence a quantum leap in higher education, Environments universities face accelerated growth in demand for higher education, a significant reduction in government supporting and funding for education, Change in the awareness and understand of the type of knowledge, global competitiveness, changing student demographics and outlooks. At the same time unbinding mobile phones is connect a lots numbers of powerful learners to communications networks. by a review of some literature pilot on the current situation of m-learning that explores alternatives to help universities carry out its core functions of storage, processing and Launcher knowledge that can be applied to real life matters, through the study of the weakness and strengths of increased connectivity to networks of mobile communications to support Structural, self-guided interactive educational quality for learners toward using mobile devices increasingly. This article as well discusses if mobile learning can be alignment between technology development with the changing expectations of students and the implications of a variety in teaching and institutional strategies. Moreover Technologies, Consisting of mobile computing, handheld, and mobile phones, wireless and laptop, PDAs.

Keywords: M-learning, Challenges, Opportunities, Portable devices.

Introduction

Universities today face new challenges, tremendous growth in demand for higher education, and a significant reduction in government funding for education, and the changing nature of knowledge, and change the demography of student expectations, and global competitiveness [1] in the provision higher education and rapid progress in information technology and the application of communications technology and re-consider how universities meet the basic functions for storage, processing, dissemination and application of knowledge to the problems of real life [3][2].

It discusses the nature of the models here from the point of view of the definition of Thomas Kuhn. According to the fact that the model is what members of the scientific community, and they alone, shares, when the models change, the world itself changes with them, [3]. The heuristics is that the transformation models in the community or community as a whole accept and practice of the changes it brings. Through the ages have seen many universities conceptual model shifts in what and how to teach and to whom. Became the medieval theological elite universities modern industrial universities.

Emerging virtual universities are attempts by institutions of higher education to change with the times in order to remain relevant in the future. The effects of the digital age at the highest learning concepts such as e-learning and mobile learning are subjects of academic research interesting. They seem, however, to be somewhat away from the reality of time to time, which is currently facing students and teachers.

In the past three decades many methods emerged for the adoption of information and communication technologies for the purposes of learning and teaching. Acceptance of the term e-learning to express an effort to transform the educational processes through the application of the media so far the allocation of different e-learning to the students' needs in terms of the pace of study, culture, time, and methods. The significant growth of computer networks LAN and WAN acceleration of the development of the Internet and the growth of online education, and through education and computing means of communication, and virtual

learning. [4]. Quality in any new educational approach is critical, and is provided a useful framework for assessing by the Sloan Consortium[1]. In the evaluation the potential of M-learning as a subset of E-learning to create a new model for higher education, paper seeks approach mobile learning that holds the original DNA of distance education, which has developed into many derivatives subtle, to evaluate the use of mobile technologies that increase access to education for Educators are increasingly sought mobile just in time and learning outcomes only for me. Technologies considered in this context are mobile computing technology, wireless laptop, Laptop, and mobile phones such as the BlackBerry, iPhone hand-held personal digital assistants (PDAs), and mobile phones. While mobile phone subscribers in the developed world is growing rapidly in the developing world, especially in Africa, China, India, and Indonesia, due to lack of telephone land and costs associated with implementation, participants in the mobile service is on the rise. Figure1.

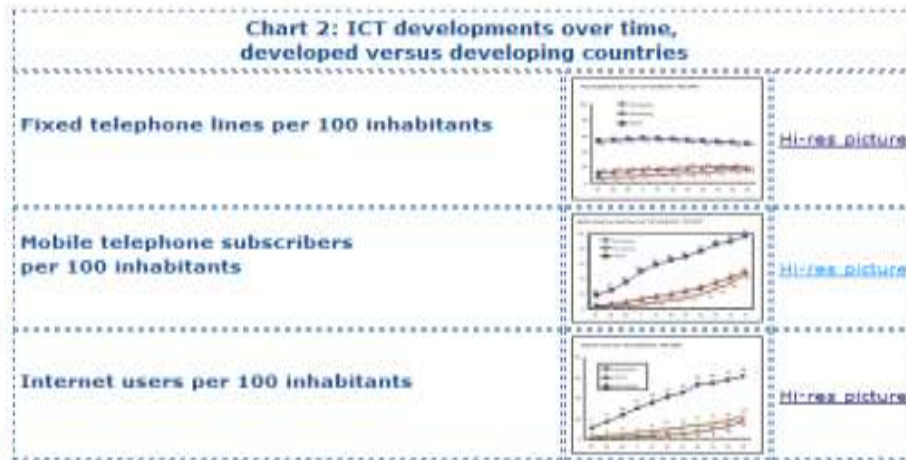


Figure 1: Source: <http://www.itu.int/ITU-D/ict/statistics/ict/graphs/mobile.jpg>

According to [1], The African continent has Amaze the world by jumping several phases of development and telecommunications traditional. Mobile phone has become so popular in many of the poorest countries. By 2009, about one-third of Africa's population was compared mobile phone subscription, but for only 8.7% of people uses the Internet through desktop computers.[5] With nearly 360 million mobile phone subscribers, Africa has surpassed the United States (270 million), according to the UNCTAD [6]. And e-learning in Africa [6] indicates that there is a great potential still for further development.

However, mobile phone use in education remains low globally. In an exploratory approach, this paper reviews some of the current experimental results on a comparatively recent phenomenon of M-learning technology which is characterized by mobility, instability, uncertainty, and are still being developed theoretical structures, and pedagogical, and organizational learning. The advances in remote applications and Internet an extension of the frame determined by the e-learning environment a lot conventional of structural providing, self-directed interactive learning that help develop sustainable global education system that is in harmony technology to respond to changing student expectations. [4]

II. Accessibility and advancing in ICT enabling

In view of massive growth in worldwide consumer electronics products such as cell phones and PDAs, and it would be difficult to disprove the argument that the spread of mobile communications is one of the most important events in the past 10 years. It is a double-edged sword. as stated in the media, the Internet, blogs, Twitter, Face book, and so on, today, technologies, mobile communications new and powerful like a pocket-sized wireless communications and the launch of the democratic revolutions, and oversight capabilities, and the revolution in diagnostic medicine, and communications in the cases of natural disasters and is at the forefront of changes economic, social and ideological turmoil in advanced economies and developing countries alike.

The Internet is a global communications tool with distinction. Basically, it is a tool of public and the Special communication a communication tool and one-to-one, and the emergence of networking technologies, digitization, and means Internet phone technology now provides the most extensive. Communications platform in the presence of anyone, anywhere, at any place, at any time communications. Should decision-makers and planners of education to be the first clear education outcomes targeted.

Have to be the petition targets guide the choice of techniques that will be used and the ways used. [7] indicating that the potential of each technology vary depending on how it is used and identify at least five levels of the use of technology in education: digging and practice, presentation, demonstration, interaction and cooperation.

III. Identify, Debate, and Assessment M-Learning

There are a few schools of thought which provide definitions for learning. Influential researcher in this area, it is known Mike and widely [7]. away from the normal educational environment or learning one involving the use of mobile devices [2]. The definition of M useful learning through e-learning Association [2]. Activity that allows individuals to be more productive when consumed, interaction, or creating information, mediated through a portable compact digital that an individual carries on a regular basis, and have a reliable connection and fits in a pocket or bag.

Mobile learning enabled by the convergence between computers and telecommunications, the Internet and digitization. Digitization, the major innovation in communications technology in the past decade, allows to create environments immersive where all forms of information, both visual, graphic, moving, or audio, and can be stored digitally in the form of reusable and portable learning repositories object (LORS). Such environments are able to be easily accessible, and elements can be mixed appropriately to alternative and complementary approach to teaching and learning [8]

IV. Current Situation of Scientific and Academic Research on Mobile Learning

Mobile Communication and Society: a global perspective [9] provides a comprehensive coverage of the search disparate body on the social dimensions of mobile communications in the past decade, including sociology communications, geography, digital divides, and spatial relationships, language, civil society, and economic development. While the search in the literature about the current situation and the application of e-learning, virtual universities, WM provides learning, in many ways, has made experimental validation of some of the theses in the field of research in the application of information and communication technology in education [2, 9, 10], and research in the application of mobile technology ongoing to achieve successful learning outcomes optimization and alignment between the expectations of the learner / teacher and the generation of new skills in response to the needs of local communities, which are still rare.

However, the indications are that learning is more successful in the Enterprises education than it is in the mainstreaming of higher education. A useful concept when discussing the successes and failures of the term disruptive technologies, a term coined by Christensen [11] and in 1995 gave him techniques article Disruptive: catching the wave. His dissertation on the principles of disruptive innovation indicating that good companies, was failed because their managers either ignore these principles or chose to fight them. in the application of Christensen's theory of disruptive innovation [11] in the field of higher education on the Internet, indicating that higher education should be free to create a completely new type of organization.

The logical conclusion from the application of innovative dilemma theses and innovative solution for higher education may be the default that education cannot thrive in traditional colleges and universities only if it works outside of the normal management and value frameworks, with the risk of loss of institutional control [12]. This would be the concept of disruptive technologies as applied to m-learning.

For further review of innovations in the field of higher education in the United States, [13]. Explained education as a service industry had its share of failed applications of information technology and communications. The dates of the rise and fall of the use of information and communication technology in education, such as educational television, programmed instruction, and many new applications and other promising technology in education, has already been written [1] Suggest that mobile technologies are disruptive technologies. This paper documents some of the failures in learning so that an analysis of the reasons for this failure may help in understanding the risks and challenges currently facing the M-learning initiatives become mainstream [14].

Previously Roschelle [15]. explained how may change wireless handheld devices CSCL [16], indicating that the designs for computer-supported collaborative learning (CSCL) applications typically assume a desktop or laptop computer. Is likely to be organized around learning wireless Internet devices (WILD) that resemble graphic calculators, palm, or portable devices Pocket-PC networks connected by short-range wireless classrooms in the future [16].

Papers are one of the very few papers useful on this subject, and inspired the author of this paper is to study the possibilities of mobile learning in higher education, To investigate whether being launched Peas and Roschelle expectations about promises of information and communication technology, and if not, why not be. Continue publications and conferences on learning to spread

on the internet. The search resulted in the term mobile learning on Google.com 966000000 visits on January 17, 2010, compared to 338.2 million effective January 9, 2009. But many of the initiatives referred to be in the case of the pilot and the submission of documents do not remember of themselves when they are reconsidered sites.

In the past two decades was the focusing of academic research in higher education new models of teaching and learning. However, the resulting experimental evidence indicates that those universities and other organizations that have chosen online learning, especially the M-learning, and found that the different their expectations have not been fully realized [17].

Calculations indicate be retroactive to the failure of e-learning projects does not return to inherent weaknesses or deficiencies in the technology, but to the errors perpetrated by people and institutions in the process of implementation of innovations [12], especially in instructional design and staff programmers develop targeted new approaches like mobile learning. If the reasons for the failure to have more to do with the actions of people, organizations, and not with the inherent limitations of techniques and tools, and those in learning organizations need to find more effective ways to deliver the promises of new technologies.

Several issues related to mobile learning is still to be resolved. Motiwalla [18] indicates that e-learning systems designed most of the current model to the PC-based access to the Internet and not be allocated for use by mobile devices such as PDAs to learn simultaneously. Moreover, the content developed in most of these systems are not standardized, making it difficult to re-use, There is also a desperately need to find a reasonable structure for mobile learning model system that can work on both PC and mobile platforms. New platforms such as Leonardo Vinci and Flash Lite project, which has the capacity and be commercial property, are beyond financial capabilities of students.

V. Seeking a Theoretical Approach to Online Learning

Mobile learning is a specialized type of Excellence traditional e-learning networks, and wireless communication technology is the fastest growing regions in history [9]. Handheld devices do not depend on telemarketers for fixed lines for an instant connections personal, portable and pedestrian [19]. Mobile phone with 3G capabilities and cloud computing has become a multi-functional tool calculations, wearable accessory that, in addition to its main function of personal contacts, and is now used for a wide range of social practices [19]. However, its ability to facilitate learning is a new phenomenon has spread through the use of information technology and mobile communications that blur the boundaries between communications, calculation and combine the ubiquity and usefulness, Challenge traditional pedagogy and to provide complementary approaches [20].

Some researcher describes the educational process where the separation of the teacher and the learner through the distance and time, or an option on behalf ,distance of transactions [21] and thus emphasize the importance of communication between the teacher and the learner. These communications are enabled by information and communication technology. Education is the kind of communication [2]. Simple as it may seem, this conceptual definition has yet to be challenged. Open mobile learning, e-learning, online learning, virtual learning, and the approach of the day mobile -learning tools for education, are subsets of distance education. It lies in the title of ,technology-mediated learning, which, according to Daniel [22], and provides a unifying theme for many of the educational developments in these days.

Vygotsky [40], adaptation in the concept of environment education, described as proximal development zone, lunch and Rajasingham [2] provide a basis to consider the education and communication. Communications and Information Technology to provide a bridge for communication and interaction between the teacher and the learner, and the problem of knowledge, as a collaborative process, in systems (real-time) simultaneously, like systems, telephone network, systems and asynchronous (non-real-time), like most of the systems on the Internet and computer, LMS, and e-mail. The nature of all means of communication has a direct impact on the quality of the dialogue between teachers and educators.

Lunch and Rajasingham [23] . They suggest that education as a form of communication involves the connection on both social and cognitive to transport and process information from cognition and to make a teacher as part of the educational institution and today as part of the Internet and online resources. For the acquisition and application of knowledge to enable learners to solve problems real life.

While traditional modern university focused on the acquisition of knowledge, in the rapidly changing new mobile knowledge society, higher education is challenged to ensure better alignment between the expectations of the learner and the communities demand for new types of skills and the ability to respond University. Here, the theoretical framework as contained in the theory of conceptual change [24] seems to be relevant. According to the conceptual change occurs when the concept is reset from one category to another. When the concepts belong to different categories or Judy areas like as materials (things) and processes, then it becomes difficult and conceptual change can lead to conflict [24]and reasoning faulty reasoning.

Vygotskyian [25], suggested, there is no difficulty in conceptual change because; both education and communication belong to the same class (or domain). Based on both categories on the matter, atoms (building and transport technologies), and communication between the teacher, educator, knowledge, and the problems, are processes (information) relies on energy, where the human brain and today processes information the computer to generate new information / knowledge.

Rajasingham and Tiffin [23] note that at the time of the rapid growth in all over the world demand for opportunities for higher education and because of high transportation costs and increased building technologies, it is more efficiency and effectiveness to bring teachers and students together by using infrastructure, communications, computing, and especially the Internet, which helps teachers, learners application of knowledge to real-life issues. The Internet, because it makes greater use of technologies visual, satellite, fiber and wireless, is quickly creating happy completely, and communications networks worldwide and widespread that rival communicate face to face in terms of effectiveness, edit learning from lack of time, space, speed, and providing education, e-learning, virtual and mobile learning on both the national and Universal levels [23]. The development of new technological tools in the existing social environments brings certain patterns of interaction, culture and protocols related to each of these specific tool, and often affect these tools or convert cultures and practices [26].

Cohen [3] says, natural science theories develop in the revolutionary transformations typical of the natural sciences. Because the of Social Sciences, which include communication and education, is also a science standard, and models of ethical are mostly in conflict, ranging from- for example, cultural conflict and harmony, individualism and collective freedom and determinism, conservative and liberal, rules of equality hierarchy, and so on [27, 28]. Therefore, learning cannot make a quantum leap to move from the experimental stage to mainstream higher education, when society accepts the new policy as a qualitative leap.

Nevertheless, we look to this step to learning environments controlled by the learner, the teacher's role is still a critical part of the teaching model communications: the role of the teacher is still for the establishment communication between the learner and the teacher, and knowledge, and the problem is in the an extensive network [29]. Are checked some of the challenges faced by learners and teachers in the next mobile environments.

VI. The perspective of Learner for Challenges

This step comes to provide greater mobility and reach to education, which now occur in the speed with which it was difficult to forecast just one year or two before. This has created increasing use of mobile phones and convergence with PDAs and similar devices to provide new possibilities of learning and the development of education.

Instructional systems serving the communities in which they are located and operate according to the cultural conditions prevailing model and technological infrastructure. When models change, so should also what we teach and how we teach. To a decisive change in this century is in the roles of teachers and learners, resulting from digitization, and the rapid changes in the breadth and scope of the Internet, and the changing nature of knowledge itself. Changes in the requirements of the industry in driving the rapid technological environments in the demand for new types of knowledge on the Internet, every culture sought legitimacy and application of knowledge in ways that culturally appropriate.

In this step the prevailing controlled by the teacher to the learner pays user environments, learners and citizen's digital restless and to resettle in a hotel Rheingold [27] Electronic Frontier, playing video games, and increasingly disengaged with traditional education and technology and its affiliates. Teachers and administration, on the other hand, immigrant's digital, still bouncing between atoms and bits, clinging to the teaching methods of traditional, exacerbating the imbalance between changing expectations of the learner, such as immediate solutions to the problems of real life, and the ability of the teaching institution to respond.

Van Eck [30] shows that, digital learning-based on games, and claim that learners are demanding multiple streams of information, please heuristics extrapolation, and we want to frequent interaction and quick with the content, and have exceptional skills of reading and writing visual. Van Eck believes that the Games reflect the principles and well-established models of learning, such as the importance of context, where learning is immediately associated with the environment by being implemented and exercised within this context.

This is indicated to as situated cognition. He gives other aspects of the Games models relevant to e-learning, including instructions moored, feedback, the behavioral, combo psychology, and cooperation. The challenge for teachers today is to align the game with the model learning model, which in turn will require processing an engagement of the conceptual change.

VII. The perspective of Instructor for Challenges

While there are chances to meet new types of applications learner, there is a pressing challenge for teachers to redesign the instructions to keep the rear intellectual, technological and new mobile environment. Education is a type of communication, where the teacher helps the learner to apply the knowledge of problems, including that the technology that enables this message to the changes that occur so too it will change the way we learn and learn. The main challenge for educators is to design and develop teaching strategies for students on the go, demanding the immediate and persistent connections per minute or minutes for sound bites, podcasts, and video clips via their mobile phones, personal digital assistants and Blackberry [31]. While mobile technologies provide easy access, and learning is about collaboration between teachers and learners, and between learners, to address the information to generate new knowledge that can be applied to real-life problems. The following section highlights some of the strengths of learning that can be useful to improve the learning of the learner and teacher views.

VIII. The Barriers That Prevent the Adoption of M-learning

Sharples indicate that the substantive aspects regardless of obstacles Statistics such as battery life and lack of flash devices iPhone, and we are currently limited by (a) the lack of imagination, (b) the lack of business forms occasion, and (c) poverty (in the ability affordability).

http://www.elearningguild.com/mLearnCon/content/2702/?utm_campaign=mlc13early&utm_medium=banner&utm_source=lsm-918.

Now, can be classified as parts of the school curricula did not learn, but put a full course on what is a small screen is not comfortable not educationally sound. [58]. Be accepted to the survival of the basic controls are complex and difficult to read the screen presentations only under certain very limited situations to adopt a broad and long-term, and not experience a matter of fact whereas the screen size is roadblock critical to mobile learning with current hardware, in the future, the iPhone with Flash and Flash Light, especially the iPad, which have the facility to zoom font sizes and grant access to e-books, may also reduce this problem, although maybe do not spend it. Today there is a growing interest in learning based on problem solving and collaborative educational practices that reflect the collaborative practice the profession of people who may exist in different regions. The Internet is a powerful social networking tool that promotes the creation of online communities of practice preparing students to work in virtual teams [32].

Nevertheless, mobile hand-held tools do not easily let collaboration unless used in tandem with learning and face-to-face and online learning [28]. Education operation involving interconnection on both cognitive and social communication in order to learn based on problem solving, and demands deep concentration free from distractions and environmental accessibility and contact databases and online creative and critical thinking. Currently, the content developed for other mass media not convey well to different platforms. According to [33]. if we really want to unleash our creativity, we may need to go unplugged, it is not at all clear that there is no shortcuts technology that can speed up the process of thought [33].

As mobile learning continues to be a subject of interest to educators, adopted the very few educational establishments in the US [34]. Judy Brown, a key scholar in mobile learning strategies, and proposes some of the issues that are considering mobile learning initiative institutions should be considered. The decisive question for teachers is what they expect from mobile learning, for example, educated will be consumers of content. Not many of the techniques do not live up to their promises, mainly because we have a distinct every new medium at the expense of the design of the message appropriately. There is a dearth of research, published in the instructional design (learning loop). It is important to research in this area to ensure more effective ways to deliver the promises of new technologies for higher education.

In accordance [35], In spite of the promise of possibilities, mobile learning faces a number of obstacles including the problem of learning management through contacts clouds (emphasis of the writer) as well the lack of solutions, cross-platform that gives all learners access to all materials independent of hardware they use.

What are the requirements:

- A). Establish a sound structure of m-learning theoretical framework
- B). a uniform set of tools to develop m-learning
- C). automatic adjustment for various platforms so that what has been developed will work across multiple devices
- D). A good example of research on the Sustainable Development m-learning
- E). the ability to integrate M-LMS with m-learning
- F). Session / the instructional design for M-learning.

Conclusion

Exploring the potential of mobile learning to form a new model in scope of higher education, this article examines some of the possibilities and challenges for M-learning to improve student learning results. The technological evolving like mobile technology an extension of the framework of e-learning environments became more traditional structural support, interactive self-directed learning. Usually consider some empirical literature on the current status of learning and teaching of mobile, and highlights on develop or adapt learning theoretical frameworks of m-learning urgent request in this epoch, in this respect M-learning consider critical issues boost occasionally with mobile learning .

Since two decades ago, the claims of new forms of enhancing teaching and learning focus of academic researchers in higher education. Moreover, the absence of success of the Key expected of sustainable in the universities and other organizations from which to choose for online learning is noticeable in empirical evidence. Majority of cases, are restricted mobile learning scenarios in terms of short-term, and pilot projects which suffered from shortage of financial support or researchers by using the individual courses and weak of experiences outside of core process reversed from the institutions, in an attempt to work around test case of M-learning.

Several issues related to education "on the go" an urgent need for the title before we can assess the potential of M-learning is to provide a new educational model. These include adapting new window Vygotskyian not theoretical learning, Also need to meet the demands of those learners which they are using mobile systems, moreover need to achieve measurable results from this techniques to consider the demands of faculty iv specific time. The Staff d envelopment in the adjustment of the session/the instructional design and learning techniques online learning is not critical. Must instructions for traditional e-learning to be re-instruct.

Mobile learning for profound learning to take place. Assessments and observations in a mobile environment, although very important in maintaining a relationship of teaching / learning, needs to be further research as you do in the development of support systems for students to learn how to learn in a mobile environment to take advantage of the strengths learning. Anyway, mobile learning is Pedagogical correctly in fact learning, sustainability, and relevant for all subject domains, and all learning methods, in most contexts and cultures, calls for further urgent investigation. After that, distance learning has a long pedigree in the last 100 years; it is still to gain the cases of a new model in higher education .A sought in the application process documented literature indicates that the mobile learning is proving to be creative and appealing, and the items that more powerful influence the failure or success or of mobile learning will rely on human factors, and the convergence between ideals and essential technological of educational, and successful management of the Perspective, between real and correct learning systems and technology systems.

Finally, It is premature to expect whether mobile learning, been Represent a new model of higher education or like some of its precedents such as (ETV) Confirm to be an educational short-term fashion .due to the our way of work, live, play, shop, bank, and teach or learn that is will become depth affected by the growing mobility of our communities, now the role and responsibility of researchers and educators to model to meet the needs of their changing listeners. No need to seeking and confront this phenomenon for amusement immediate and learning while on the move for the mobile generations may find us is not ready for future indeed.

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