

Usages of Mobile Technology to Enhance Teaching and Learning Methods for Different Level of Programs of Bangladesh Open University

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ABSTRACT

Bangladesh Open University (BOU) is a distinctive seat of learning that imparts education through open and distance mode. This university usually usages print materials for the learners but occasionally usages technology like some electronic devices to reach people in different corners of the country. BOU offering education for mass people those who did not take part their education in conventional educational system. It is now offering secondary to tertiary levels of programs. All level of education seeker has opportunity to enroll in BOU's programs to upgrade themselves from the existing knowledge and fit them in their required job market. Possess of learning which BOU is using for the learners are not up-to the mark to dissemination of knowledge. To overcome this situation and to ensure the quality teaching and learning methods BOU is now thinking to use mobile and internet technology for the learners. The total number of mobile phone active subscribers in Bangladesh has reached 98.593 million at the end of February 2013 while the number of active internet user has reached 30.39 million (BTRC, 2013). BOU is now in the implementing phase to installing a software and database for course materials of different programs. BOU can try to introduce educational mobile technology for their learners as learning tools. It would be a great opportunity for the learners to access their study material and any other quarries regarding their learning process by using the student portal from their mobile internet. This is cost-effective and time saving approaches to enhance the teaching and learning process for huge number of disadvantage, rural and remote learners. This paper tries to focus on how learners can familiar with the mobile learning and the prospects of mobile learning in the context of Bangladesh.

Keyword: Mobile learning, Cost-effective, Remote learners, Technology.

INTRODUCTION

Bangladesh is a developing country and struggling for education to all but a huge numbers of learners from conventional institution have been give up their education for a varieties of socio-economic reasons. Open and Distance Learning (ODL) is an alternative way to educated those aspirant learners. Bangladesh Open University (BOU) is the only public university which offered education through ODL system. BOU imparts education through a set of self-learning materials (SLMs) written in modular format and providing tutorial sessions at selected study centers. Apart from printed modules, support is also given to learners through audio-visual media which have been broadcasted and synchronized with the tutorial sessions.

Sharing of knowledge is the key factor for any economic development and growth of a country. Mobile technology and its uses can enhance the existing knowledge of the stakeholders. The internet and related technology such as mobile phone, smart phone, tab, and notebook facilitate the flow of information and knowledge, make it accessible to people at minimum cost, and help to establish knowledge-based society.

The processes of existing learning approaches which BOU has been using for the learners are not up-to-the mark to dissemination of knowledge. To overcome this situation and to ensure the quality teaching and learning processes, BOU is now planning to use ICT based learning for the learners. Mobile phone and internet subscribers are increasing day-by-day in Bangladesh. At present the total number of mobile phone active subscribers in Bangladesh has reached 101.21 million while the number of active internet user has reached 33.04 million (BTRC, 2013a, 2013b). With this advancement, BOU can try to introduce mobile and internet technology for their learners as educational learning tools. It would be a great opportunity for the learners to access the study materials within a minute at their hand and gather knowledge and share with their peer

learners at a minimum cost. Learners can also share their quarries with teachers regarding learning process by using the student portal from their mobile internet. This is cost-effective and time saving approaches to enhance the teaching and learning process for huge number of disadvantage, rural and remote learners. This paper focus on how mobile technology can enhance teaching and learning process of different level of programs at Bangladesh Open University as well as how the learners can uses of different learning tools regarding the learning process by using mobile technology in the context of Bangladesh.

Open and Distance Learning in Bangladesh

Open and distance learning create a new window of learning opportunities at various levels in the society who do not have access and/or who have limited access to enroll at conventional educational system for various reasons. ODL also supports learning as a continuing or life-long process as well as scientific and technological advancements (Rumble, 1989). Bangladesh Open University, established in 1992, and it becomes a mega university in terms of learners' enrollment (Daniel, 1996; Wikipedia, 2013). At present, BOU is offering twenty one formal programs from certificate to master's level from its six schools. In the session of 2010-2011 there are about 378,382 learners have been enrolled in these programs (www.bou.edu.bd). Most of the programs are offering nation-wide, in urban, sub-urban and rural areas. Some programs have the greatest impact in increasing the opportunities for girls and women to participate in education. The processes of these learning approaches for the learners have not full fill the demand of the knowledge acquiring. These could be achieved and accessible by using mobile learning based education.

Mobile and Internet Subscribers in Bangladesh

Bangladesh is a country in the world where rapid expands of mobile facilities all over the country especially at the remote and rural areas. According to Bangladesh Telecommunication Regulatory Commission (BTRC), there are 101.205 million mobile phone subscribers at the end of April 2013. The number of mobile phone subscribers of different providers (BTRC, 2013a) is appended in Table 1.

Table 1: Number of mobile phone subscribers in Bangladesh.

Operators	Active Subscribers*
Grameen Phone Ltd. (GP)	42.372
Banglalink Digital Communications Limited	26.309
Robi Axiata Limited (Robi)	21.697
Airtel Bangladesh Limited (Airtel)	7.557
Pacific Bangladesh Telecom Limited (Citycell)	1.425
Teletalk Bangladesh Ltd. (Teletalk)	1.844
Total	101.205

*Subscribers in Millions

In February 2012, the total numbers of mobile subscribers were 87.887 million in Bangladesh (Alam et.al. 2011). The numbers of mobile subscribers indicates how fast the density of mobiles in the community is growing up. Almost every single village in Bangladesh has been bought under the mobile network system. There are now many who can keep mobile phone due to low cost of its charges. According to different data sources the mobile charge per minute stands between on average US\$ 0.01-0.03 and Short Messaging Services (SMS) cost is US\$ 0.007 per SMS message. The total number of Internet Subscribers has reached 33043.124 thousand at the end of April 2013 is shown at Table 2 (BTRC, 2013b).

Prospects of ICT's Used in Open and Distance Learning at BOU

The rapid growth and uses of information and communication technologies (ICTs) may create a scope to develop new forms of education. Education is the important needs of an individual which leads to enhance ones personality and make him/her a valuable person in the society (Islam and Selim, 2006). To disseminate

education to the door steps of the learners, ICTs uses can play a vital role to improve the society and the country so that they become a skill person in the society and they can improve their quality of life (Ally and Needham, 2011). The recent development of mobile learning approached; e-Learning is an alternative and innovative ways to delivering learning materials to the learners. The learning materials have been designed according to the learner-centered and interactive way which can be reaching to anyone, anyplace, anytime by utilizing the internet and digital technologies.

Table 2: Number of Internet subscribers in Bangladesh.

Category	Subscribers*
Mobile Internet	31330.766
ISP +PSTN	1221.12
WiMAX	491.238
Total	33043.124

* Subscribers in Thousands

Mobile Learning (m-Learning)

Mobile learning (m-Learning) is the way to delivery of education by the use of mobile devices such as mobile phone, smart phone and digital audio players (Islam and Selim, 2006). One of the most exciting developments in technology for learning is the increasing focus on the mobility of the learning experience. Now-a-days m-Learning is not about devices, but rather about learning across contexts. Web content is optimized for display on the user’s device of choice, so that the internet accompanies the user, not limiting access to discrete locations or times. The mobile device is a very personal choice and acts as an extension of the person’s reach into the community of study.

In m-Learning system, the most common mobile devices are mobile phones, smartphones, e-readers, netbooks, tablets, personal digital assistants (PDAs), gaming devices etc. These devices make phone calls, send and receive text messages (SMS), and take pictures. A recent growing mobile device is ‘smartphones’ which run by mobile operating systems such as iOS, Android, Windows Mobile, Blackberry, Symbian, etc. Smartphone allowing access to the web, e-mail, documents, office productivity tools, and are becoming a useful device for mobile learning purposes (Woodill, 2011).

Mobile Technology in Education and its Advantages

In developing countries the uses of computers are limited due to limited infrastructural facilities and interrupted power supply, whereas mobile technologies can be used as an alternative way to access education. The use of mobile technology has been increasing day-by-day in developing countries. This provides an outstanding opportunity for educators to reach learners around the world in terms of time and location. The fast growing m-Learning is now part of an innovative learning setting created by the availability of technologies supporting flexible, accessible, personalized education. A huge number of learners’ uses mobile phones, smart phone and tablet pc which can also be used for learning devices, are now important component for the rapid uptake of mobile learning throughout the world and especially developing countries like Bangladesh. The advantage of m-Learning is easy to access of context-specific resources at any time, any place and anywhere.

The Role of Mobile Learning in Education

Several studies suggest that the benefits of mobile phones are not simply limited to increased access to educational services but it can also facilitate changes of learning modalities that in turn impact educational outcomes. Moreover, m-Learning facilitates is the alternative learning processes and instructional methods that leads to effective learning. Mobile phones theoretically make learner-centred learning possible by enabling learners to gain educational information in order to build on their skills and knowledge and to meet their own educational goals (Volk et al. 2011). Mobiles can also apparently facilitate knowledge-centred learning by providing well-organized and creative methods by which learners can learn. Moreover, m-Learning make

possible assessment-centred learning as well by allowing the provision of continual feedback throughout the learning process, presenting learners with verdict and formative guidance as to what might be improved or what might be learned next (Sharples et al., 2007). Thus m-Learning should impact educational outcomes by altering the charisma of education and learning because the nature of mobile technology converges with and facilitates new learning. The new learning is personalized, learner-centred, situated, collaborative, ubiquitous, and lifelong (Sharples et al., 2007).

Impact of m-Learning in the World

Mobile learning is an emerging as a new way to reach and connect with learners. Both developed and underdeveloped countries have rapidly use of mobile devices for a variety of reasons. Mobile learning instruction are using technology for teaching and learning, are shifting from a model working only with e-Learning to including m-Learning (Caudill, 2007). Mobile learning is being alternative path to follow in distance education for developing nations and areas such as South Korea, China, other parts of Asia, and Africa (Motlik 2008). According to Motlik (2008), internet based education is not as good of a fit for many developing nations as a mobile distance education. While use of mobile phone is more common and accessible but the Internet is not as widely available, especially in those countries that find the majority of their populations in rural areas. That, coupled with mobile tariff rates being held low due to competition and the availability of low-cost handsets, makes mobile learning affordable for even the financially constrained groups.

In developing nations such as Bangladesh, Malaysia, the Philippines, Mongolia, and parts of Africa, the most common form of mobile learning is the use of Short Message Service (SMS). Learners are able to send and receive messages almost promptly. According to a Norwegian Knowledge Institute study, there are some approaches to mobile solutions in education in Europe. Which are - 1) increase flexibility of teaching by providing mobile resources and developing the learning management system to handle the mobile content, 2) increase the quality of the learning experience which provides learners with quizzes and study materials via their mobile device, and 3) is for administration purposes (Mockus et al. 2011).

KEY ADVANTAGES OF USING MOBILE TECHNOLOGIES IN EDUCATION

Mobile technologies are widely used in teaching-learning approach. The benefits of mobile learning are categorizes in two major areas, these are as follows:

A) Benefits for Learners

- Use of relatively economical ordinary technologies;
- Better opportunities to acquire skills at individual level;
- Good support for favorite modes of interaction;
- Facilitated to give immediate feedback on their learning experience;
- Learners can share their experiences of learning problems as they occur;
- Psychological support for those at risk of dropout, through social networks or personal guidance from a mentor;
- Education should be open so that anyone can upgrade their knowledge and skills;
- Employees can access learning materials in the workplace using information and communication technologies.

B) Benefits for Educational Institutions

- Study materials can become accessible to more learners, through mobile applications, blogs and e-books, which are seen by potential learners;
- Providing for disadvantaged learners for whom mobile learning presents an opportunity to improve their life chances;
- Updating the curriculum, changing teaching methods and implementing improved feedback to learners;

- Supporting learner retention, progression and transition; and
- Reaching the learning experience at the door-steps to changing the needs of individuals, inspiring learners to return for knowledge updating.

RECOMMENDATIONS

- ❖ To become digitalized in everywhere, and especially in education sector it should have strong, sustainable partnerships between the government, private sector and civil society must be built to offset costs and mitigate the complexities of the integration of mobile technology in education systems.
- ❖ Often overlooked by policy makers, monitoring and evaluating is critical to ensure quality education that these respective programs are both making the intended impact and will be sustainable in the long run.
- ❖ Dedication and flexibility are necessary from all stakeholders to ensure agreement and progress. It is necessary to focus on training teachers and instructors to use mobile learning devices to develop their own teaching materials and educational content.
- ❖ Considering that teachers and instructors, as well as outside developers need to make a meaningful effort to develop learning materials in local languages with appropriate and relevant content for local situations.

CONCLUSIONS

We are now in the mobile era where mobile technology is being used by people to conduct everyday communications and to complete everyday tasks. The technology is changing the way people work, learn, conduct business, interact with each other, and access information. It is expected that mobile web usage will double within five years and will overtake personal computer access to the web. Internet, e-mail and mobile phone access is dramatically expanding due to the gradual price decline. Individuals are using mobile technology for entertainment – “entertainment in the pocket” and to shop – “in the pocket shopping”. Education need to make the transition so that we can have “learning in your pocket” with mobile learning (Ally and Needham, 2011). However, to achieve these goals these initiatives must implement lifelong learning and deliver education on mobile devices and tablets which are affordable.

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