



Impacts of Information Technology on E-learning System in Pakistan

M. Ali¹, A. Ahmed¹, A. W. Shaikh² and A.H.S. Bukhari³

¹Department of Information Technology BUITEMS, Quetta, Balochistan, Pakistan

²Department of Computer Science, SALU Khairpur, Pakistan

³Faculty of ICT, BUITEMS, Quetta, Balochistan, Pakistan

aftab.ahmed@buitms.edu.pk awahid.shaikh@salu.edu.pk Bukhari@buitms.edu.pk

*Corresponding authors: M. Ali: mazhar.ali@buitms.edu.pk

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Abstract: Information technology (IT) is performing a very important role in the enhancement of the e-learning process in Pakistan. IT provides all the recourses for the development of e-education system. Now a day, internet is using all over the country. People, which are surfing the internet are actually e-learners.

This study was conducted regarding to explore the impacts of information technology trends on e-learning process in Pakistan. Study provides trends of information technology which are beneficial for the stack holders, instructors, trainers, students and learners. IT trends are flexible, so learners can get information, lectures, trainings, digital notes, and digital books at their homes, offices, businesses and etc any time.

Key words: IT, E-learning, ICT, E-education, E-Training, VUP, AIOU.

INTRODUCTION

Information Technology:

The information technology has changed the conventional styles of the commerce and business by means of the new tools of technology. IT is providing trends for inputting, processing, transmitting, managing, protecting, storing and later retrieving the information as necessary.

The value of information technology cannot be denied because it has dominated almost all the fields of business and industry including the service sector, management sector, security sector and etc. Now, one having no touch with this technology would not be able to make any progress in the organization, business, industry etc (Kalia, 1999).

The role of information technology in the growth of organizations is patent in the world. Therefore, if Pakistan wants to come in line with the progressive countries of the world, it would have no alternate except to struggle more and more for the development of Information Technology (Kalia, 1999).

Information technology performs imperative role in providing e-education, e-information and

e-trainings etc to people, who want to learn electronically at their homes, offices, businesses and etc. e-information, e-education, e-learning and e-trainings can be provided to people of all remote areas of Pakistan properly by using information technology.

MATERIAL AND METHODS

E-Learning:

E-learning is way of learning by using the information technology trends. It enables people to learn any time and any where. It is a fast growing application in the world, it is widely used in universities, enterprises, communities as a typical technical-driven application, and the development of e-learning has close relationship with information technology such as computer network, cellular phone network, and multimedia technology (Wu, *et al.*, 2010).

E-learning is the global use of information and communication in the e-education. Several terms are used to portray this form of education, which are online learning, virtual learning, distributed learning, web-based learning and etc. Basically, these all are submitted to the teaching and learning process that

make use of information and communication technology to intervene synchronous and asynchronous education activities (*Chapter 1: E-learning: Definition, Scope, Trends, Attributes and Opportunities*” Commonwealth of Learning, Commonwealth educational media center for Asia).

The competence of information technology to support multimedia resource-based learning, network-based learning, and mobile communication-based learning is also relevant to the rising interest in e-learning.

E-learning in south Asia:

Education is considered a major priority in South Asia, and a means to socio-economic advancement by all citizens, urban and rural, rich and poor. South Asia is a zone of the world, where the Distance education has developed rapidly with a wider range of approaches. These approaches have created a demand for education with which traditional systems have been unable to cope; and the introduction of distance education has been proposed as a solution (Baggaley, *et al.*, 2011).

The following countries are using the distance education methods as well as e-learning process.

- Samtse College of Education (SCE) Bhutan;
- 15 open universities in India
- Allama Iqbal Open University (AIOU) and the Virtual University, Pakistan
- Open University of Sri Lanka (OUSL),
- University of Colombo School of Computing (UCSC) (Baggaley, *et al.*, 2011).

E-Learning in Pakistan:

Distance education and E-Learning is not a new phenomenon in Pakistan, where institutions such as Allama Iqbal Open University (AIOU) has been providing distance education since 1974 (Siddiqui, 2011).

The virtual university of Pakistan (VUP) was established by the government as the public sector university in 2002 with a clear and patent mission to provide the affordable high standard education to the students of Pakistan by using the modern technologies. It was first university of the Pakistan, which was based on information and communication technologies. VUP delivers the lectures and provide education through broadcast television and internet (*About us / About VU*” <http://www.vu.edu.pk/>).

Table 1: shows the number of campuses of both universities in Pakistan (*Regional offices of AIOU*” <http://www.aiou.edu.pk/RegionalOffices.asp>), (*Virtual campuses*” <http://www.vu.edu.pk/>).

Sr. No.	University Name	No. of own Campuses	No. of Affiliated Institutes
1	AIOU	36	none
2	VUP	15	168
Total Campuses		51	168
Grand Total		219	

Graph 1: Shows percentage of owned campuses of AIOU and VUP in Pakistan.

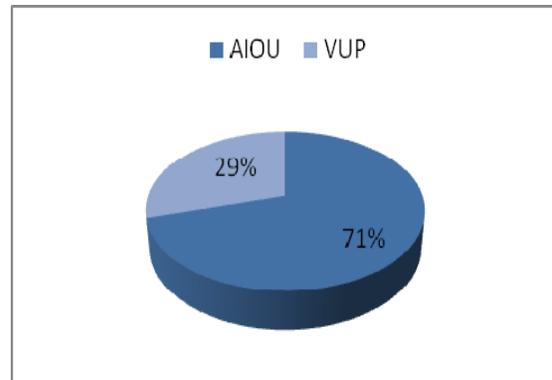
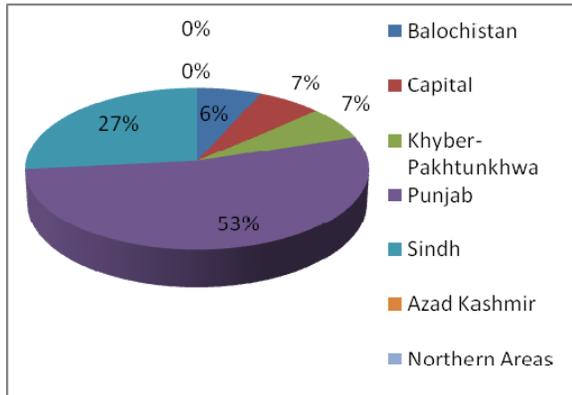


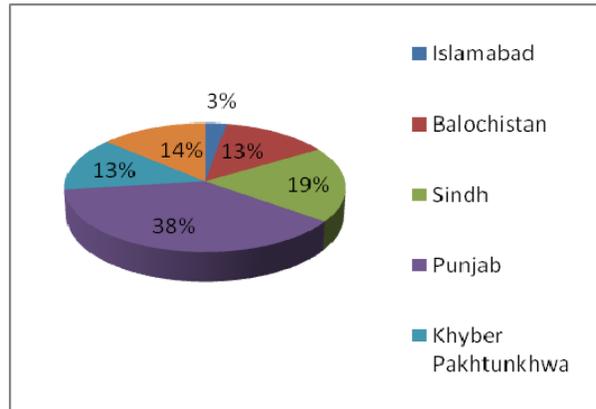
Table 2: Shows the number of campuses of VU area wise in Pakistan (*Virtual campuses*” <http://www.vu.edu.pk/>).

Sr. No.	Area	No. of own campuses	No. of affiliated campuses
01	Balochistan	01	01
02	Capital	01	0
03	Khyber-Pakhtunkhwa	01	20
04	Punjab	08	119
05	Sindh	04	21
06	Azad Kashmir	0	05
07	Northern Areas	0	02
Total		15	168
Grand Total		183	

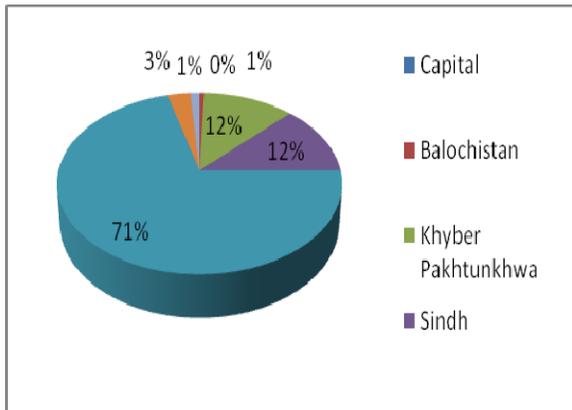
Graph 2: Shows percentage of owned campuses of VUP area wise in Pakistan.



Graph 3: Percentage of owned campuses of AIOU region wise in Pakistan.



Graph 2: Shows percentage of affiliated campuses of VUP area wise in Pakistan.



ISSUES IN E-LEARNING:

Improper and incomplete use of information technology creates problems for e-learners as well as e-teachers and e-trainers. Lectures, which are delivered through satellite TV channels and internet, are not using the complete tools of information technology; therefore some times those lectures are not interesting and motivating. E-learners are not facilitated properly regarding the online help of concerned teachers.

The campuses of the distance education providing universities / institutes / organizations are not fully equipped with the information Technology resources.

Cellular phone network is important tool of IT but such type of the organizations are not using the advantages of this network.

VUP provides video conference facility to its own campuses but affiliated campuses are not facilitated with the video conferencing.

RESULTS AND DISCUSSION

ROLE OF IT IN PROVIDING E-LEARNING:

Learning is process of getting new things or knowledge. A book, a journal article, or a newspaper reports etc are the learning objects. An electronic learning process is a way by which learning is promoted by using IT resource. In general, these resources include scripts, images, and multimedia modules etc in digital format. They are often developed as discrete entities so that they can be reused by multiple users and in a range of educational settings

Table 3: Shows the number of campuses of AIOU area wise in Pakistan (Regional offices of AIOU” <http://www.aiou.edu.pk/RegionalOffices.asp>).

Sr. No.	Area	No. of own campuses	No. of affiliated campuses
01	Islamabad	01	0
02	Balochistan	05	0
03	Sindh	07	0
04	Punjab	14	0
05	Khyber Pakhtunkhwa	05	0
06	Northern Area	05	0
Total		36	0
Grand Total		36	

(Chapter 5: Digital learning objects” Commonwealth of Learning, Commonwealth educational media center for Asia).

Following trends of information technology can promote and improve the e-learning system in Pakistan as well as provide better education at the door step of e-learners.

Utilization of Multimedia / Graphics software:

The traditional lectures development system can not motivate the e-learners properly. Therefore, the e-learners can not get the proper education and trainings. In this concern, the lectures and presentations may be created by using the Multimedia tools, in which animation and games should be used. Games and animations create more interest in e-learners; therefore, they can be motivated properly.

Online Teacher or Trainer or Chat-boat/Expert System:

The lectures and presentations are delivered as a recorded copy through TV channels and internet. If any e-learner has query or confusion, he or she can not discuss with concerned teacher or trainer at that time. Therefore, e-learner remains unclear and vague in discussing topic at that time. In this concern, an online teacher or trainer may convince the e-learner. If a teacher or trainer cannot come to online at that time due to time or some other reasons then an intelligent system like chat-boat or expert system may be developed. A chat-boat or knowledge based system can convince and solve the problems and confusion of e-learner at anytime and anywhere.

Video conferencing:

Video conferencing is an important tool of information technology that is used to give presentation, discussion on any topic and even for teaching and trainings. By using this tool, e-learner, e-trainer and e-teacher can observe facial expressions of each other and can understand, teach and discuss in proper way.

Companies which are expensing lot of money on trainings can save their money by using this tool.

Cellularphone Network:

Mobile cell phones are used by about 99 million people of Pakistan (Mobile Phone Subscribers in Pakistan <http://www.best-mobiles.com/mobile-phone-subscribers-pakistan-more-than-99-million/> last accessed on January 28, 2011). It is not used only in

urban areas but even in the remote and rural areas of Pakistan. Therefore, this tool of information technology can perform important role in e-learning. Almost all cellular phone companies providing the internet facility and some are satellite TV broadcasting. So e-learner can get lectures, presentations through mobile cell phone and can discuss with the teacher, trainer and chat boat. The memory is also large in the mobile cell phones therefore, to store lectures and other material is not a problem for e-learners. A special purpose web-based application for e-learning may be more beneficial.

This is a very cheap and easy way to provide education and trainings to e-learners in Pakistan.

Cloud of e-education, e-trainings and e-learners.

The cloud of e-education and e-trainings for e-learning provides more benefit to the institutes, organizations and industries etc. Therefore, the teaching and trainings may be secure and specific for the concerned e-learners. In this concern, each institute or organization can develop its own cloud and can provide education and trainings to its defined learners.

CONCLUSION

E-learning is best way to provide education, trainings and knowledge to masses at their door steps. In Pakistan, majority of People are learning electronically by using internet, cell phones and watching televisions, therefore, masses are in connection with the learning process directly and indirectly.

Formally e-learning process is mostly used in VUP because AIOU is using manual learning process that is to send the books, notes and CDs of lectures to students through their regional offices or postal services. Both universities are using old pattern of making lectures. While, there are modern ways to provide education, trainings to the masses which are mentioned in this study.

AIOU and VUP are not using the cellular phone network for this purpose, while it is very cheap and easy way to provide e-education.

E-learning is not confined to universities for the formal education i.e. degree and other programmes but it is also useful for the other organizations and industries which are providing trainings, conducting workshops, seminars etc for their employees and masses. E-learning is cost effective system therefore, these organizations and industries can save lot of

expenses of traveling, accommodation, food, arrangement of programmes, devices, software, and etc.

The status of IT is vital in the enhancement of the e-learning process. Proper information technology infrastructure may improve and develop the e-learning process in Pakistan. Institutes, industries and e-learners can provide and get proper education and trainings using the IT infrastructure.

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