

Development of IT in Education in Bosnia and Herzegovina Example: Faculty of Economics, University of Sarajevo

Aida HABUL

Prof. Dr., Sarajevo University, Faculty of Economics
71000 Sarajevo, Bosnia and Herzegovina
aida.habul@efsa.unsa.ba

Merdžana OBRALIĆ

International Burch University, Faculty of Economics
Department of Business Administration
71000 Sarajevo, Bosnia and Herzegovina
m.obralic@ibu.edu.ba

Abstract: Use of technology is changing the way we work, learn, and communicate—even the way we carry out our regular, daily activities. In high education, technology has had a dramatic impact on teaching and learning, including service-learning experience. Service-learning classes and activities can be augmented through the use of technology to provide more effective experience for faculty, students and community participants. With their ready access to new technologies, higher education institutions are well-positioned to take advantage of rapid changes in the field.

Keywords: IT, Development, Education

Introduction

Computerization is a process that facilitates the flow, saving and access to information. Looking through education, IT, when it comes to communication between professors and students and saving time, represents the relief during the educational process. This model of work has certain infrastructural and demographic requirements, therefore it is important to decide whether BH is able to support, and when they will have this feature. (dr.Zlatko Lagumdzija, mr.Zlatan Šabić, Mr.Tarik Zaimović, mr. Kačapor Kemal, mr. Dragan Ivanovic, 2006)

Computerization is one of the areas of study that in a positive sense, is transforming the profile and image of the organization. It transforms the existing and creates new, appropriate educational programs. Therefore, the computer helps each organization, through stable and evolutionary development, to become a leading educational institution in its field at the state and regional levels.

Computerization helps to increase the productivity of the organization to the extent that any set goals of that organization are available. Employees use new tools that will help their communication through modern technology. Today, technological support is such that the participants in the organization can unload most of their daily problems of a practical nature. Therefore, they can be concentrated on the objectives and essence of the teaching process.

Staff of organization should have at their disposal the most modern computer-communication aids. Each business unit should be computerized. Internal communication should be at an extremely high level. (Dr. Zlatko Lagumidžija, 2006)

Distance Learning (DL)

Distance learning, abbreviated DL, is very often linked to modern methods of learning and comes from encouraging the expression of Distance Learning and translated into the Bosnian language means “learning remotely”. The idea of DL rests on dislocating classical classes and assignments to the new virtual classroom, where a completely new opportunity for study is provided to students.

In addition to professor – student interaction, there is also student-student interaction. The phase of synchronous and asynchronous learning is being combined. It also replenishes individual and group work. If you are involved in the educational process, you will see that all of these forms ultimately complement each other.

Distance learning, as a new form of learning, offers to students who do not have time to follow the daily lectures, to learn the material and offers them the possibility of learning in a time when it is most convenient for

them. This form of educational process, in the last 20 years due to the rapid development of information technology, computers and computer network, has joined, or has almost completely replaced the previously known methods of education. Enormous importance in the expansion of this form of education is placed on the Internet, as a global computer network, which is fast and relatively cheap, can connect very remote participants, and helps us overcome technical, linguistic and other barriers in the educational process.

An increasing number of students in the world conduct a significant part of their studies at home, by using information from the Internet that are prepared just for them and designed to lead them through the process of learning and absorbing content.

At the Faculty of Economics in Sarajevo, this kind of learning started six years ago, where the student through the Courseware received additional materials from the professors. In addition it served professors and other students for further explanation, the exchange of information and to work on common tasks. In the world market there are great courseware tools for organizing remote learning, as commercial and free software packages. Of the commercial tools among the best software packages are WebTV and Blackboard, and the free: Moodle and Caroline. Applications for distance learning, made by Moodle Courseware tool on Windows XP operating system and Apache / MySQL / PHP platform in the form of a local Web server, presents a view of basic opportunities of the software Moodle package in the organization process of distance learning.

There are many legitimate reasons for the establishment and expansion of remote education. We have loose-linked or partially isolated parts of the country, we have employed and unemployed people who need various forms of supplementary education in the age in which, because of other obligations, cannot come to a classic educational environment and invest time in learning programs. We have educational institutions with tradition and quality that do not meet in the world bidders of educational content, and have, on the other hand, a relatively viable network IT infrastructure that can solve more technical service needs to distance learning.

Education today is considered to be the condition of survival and development of modern societies, because the importance of education, especially in the field of information technology, is at a proportional size with technological development of society.

Existing State of Computerization in Bosnia and Herzegovina

In general, computerization in Bosnia and Herzegovina is a slow process that does not enjoy such a growth trend, such as in developed countries. Many factors, including the economic condition of the state and the level of education are determining this trend. Information and communication technologies as an integral part of the modern movement are changing our business world, as well as household and government institutions more slowly than expected. These changes promise faster and cheaper communication of citizens, which indirectly affects the positive development of society as a whole. (Sadovic Mirza, prof.dr.Aida Habul, 2008)

It was noted that the number of Internet users is still bigger in the Federation of Bosnia and Herzegovina than in the Republic of Serbia and is 36% versus 20%. The younger generation uses this method of communication more than adults.

When it comes to students, 80% of them are using the Internet. This information is useful to indicate that we are ready to head to more systematic and better access to organizational IT in higher education. (Rizvić Amra, 2008)

In this case we have decided to take a more detailed analysis of use and development of pre-existing IT systems - Distance Learning (DL), its advantages, the current suitability of this vision of study in Bosnia and Herzegovina, and provide any suggestions for improving it.

IT at the Faculty of Economics in Sarajevo

1. Faculty of Economics in Sarajevo

The Faculty of Economics in Sarajevo was founded in 1952. From then until 2005 13,246 students of four-year study graduated 541 students of three-years of study and 2,578 students of two-year study. The Masters of Science degree acquired 435 candidates and there were 174 doctoral dissertations. The entire period since the establishment of the Faculty is characterized by intensive development focused on the following lessons and educational processes, as it's modernizing.

2. View of the state of IT at the Faculty of Economics in Sarajevo

The Faculty of Economics is a leader in the whole process of E-education in Bosnia and Herzegovina by the number of advanced courses, access to e-education and standardization of developed courses, which have devoted special attention to the aim of obtaining international certification - accreditation. Project E-education,

meaning Distance Learning (DL), which is developing at the Faculty of Economics as a project of the MIT (Management and Information Technologies) Center, began in 2005.

The first generation of DL students (of 150) entered the DL study in the 2006/2007 school year. It is necessary to mention that this is not classical DL studies, but the combination of DL study and standard studies (70% of classes take place online, 30% in class). The largest part of each exam is graded in class. Today at the Faculty of Economics in Sarajevo, about 980 students are participating in the DL study and about 120 professors and assistants are involved.

The Faculty of Economics in Sarajevo, out of all the faculties in the University of Sarajevo, is equipped with the most technology. It has 340 PCs (20% of the total number of PCs at the University of Sarajevo), 20 laptops and 6 MAC's. Network infrastructure is well made; all desktop computers are linked to the LAN network. There is also infrastructure for wireless connections (The hot spot in the building is in the square of liberation and the building at the Skenderija Plateau).

When it comes to the DL project, the technical infrastructure of the Faculty is used, but one mail service and a computer room with 30 computers is reserved for this project, while other infrastructure is used if necessary. Nonpermanent faculty employee is not related solely to this project. Carriers of the project are members of the MIT Department of Economics, University of Sarajevo, together with technical personnel (7 are actively involved), working on improving service and providing the necessary assistance relevant to professors who create the DL course, in terms of getting acquainted with the teaching staff from the Moodle platform and students, who work in the function of the DL operator (13). (Rizvić Amra, 2008)

Research

The comparison of different research may find that the students expressed agreement that the development of IT raises the quality of study. It is a very small percentage of students who do not agree with the above statement, with no significant differences by years of study. It is interesting to notice that the students with the most positive attitude are the students in the final years of study. The reason for this could be that these are students who began their studies at the Faculty at a time when it was not at this level of IT maturity, and were witnesses of the progress. Unlike them, students of first, second and third years of study at the faculty come to the time when the use of information technology is almost the same as today.

Conclusion

Widespread use of technology is changing the way we work, learn, and communicate-even the way we carry out our regular, daily activities. In high education, technology has had a dramatic impact on teaching and learning, including service-learning experience. Service-learning classes and activities can be augmented through the use of technology to provide more effective experience for faculty, students and community participants. With their ready access to new technologies, higher education institutions are well-positioned to take advantage of rapid changes in the field.

The process of education in the distance is, "old" is more than a hundred years, and its temporal development depends on the development and availability of communication media. The first forms of remote education were based on letters and postal delivery as a communication tool. Recently the field of DL learning has been intensively studied for several reasons. The belief that the end of any secondary school or faculty stops the need for learning and education was long ago abandoned. From the introduction of the computer in daily human environment, human life has required change and adjustment, and training employees in an adequate way.

In the past 20 years, distance education has become very popular in the world due to the rapid development of IT. In such a communication based environment, it becomes quite clear that modern communication has become the basis of human life. So learning with computers and computer networks has replaced the previously known methods of distance instruction, such as correspondence schools and educational programs on radio and television. This especially took place in countries where large distances always presented a problem in the organization of education, which today have developed IT infrastructure, such as Canada, USA, Australia and South Africa. Internet in these countries successfully overcame spatial distances and very well replaces all other known media. The purpose and meaning of Web lectures to listeners is that at any time they have access to teaching materials which are easier and better to be prepared for the coming lessons and exam preparation. New opportunities and responsibilities in the career of young people in terms of changes in places of work, change jobs because of better financial conditions, variable working hours, and a large number of meetings and business trips, work on the ground, etc., give the new generation of students who are able to finance their education by working, more and more access to learning programs from a distance.

Learning from a distance is a form of modern learning which is applicable to all forms of education (schools, universities, specialist and postgraduate studies, etc.). Distance learning includes almost all the

essential features of classical learning and by accepting all the benefits of new telecommunications and computer technology, it is becoming modern.

The process of DL study can be improved with better technical equipment and appropriate standardization. The need for international accreditation of Faculty, as a carrier of E-education is of extreme importance.

E-education and this kind of study is the future of the world so Bosnia and Herzegovina should work hard to be in line with the world's E-education.

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