

Establishing Distance Education: The tools, challenges and experiences

Lejla A. Bexheti, Marika A. Trpkovska and Arbana B. Kadriu

Abstract—The Internet has detained the public imagination. It is readily evident that the huge prospective of present technology will influence not just the location of the educational process, but also its occasion-time, place, content, context and form of interactions. These changes have an effect on the education background. Nowadays the technology of online digital libraries, open course collections of web pages, online courses and classes abroad has invaded the public cultural awareness of conducting education and training at distances.

In a lot of distance education conferences researchers - educators discuss the adaptation of new technology to online settings of courses that are being offered from distance. Nevertheless, the actual transformative potential of web technology for education reform is still not well understood. The promise of the Internet to deeply modify the structure of education is not without its problems yet. The technology cannot immediately cause changes in centuries old traditions. Much of what is now available online is merely content based on the same old educational principle of driving knowledge into the student's head.

The main advantage of distance education is that knowledge can be distributed from the educators to the students from anytime and anywhere. Recorded and online lectures (audio/video), online group meetings, discussion and assessments are just few on the tools that will help the implementation of distance education.

This study will assist in establishing Distance Education program through the tools, challenges and practical experiences done at South East European University.

Keywords— e-learning, LMS, distance education, online course.

I. INTRODUCTION

THE impressive growth in the appliance of technology to online course instruction has resulted in increased concern for higher institutions. Close to this almost all abroad

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L. A. Bexheti, is Assistant Prof at Faculty of Contemporary Sciences and Technologies and Director of the eLearning Center at SEE Univeristy, Ilindenska nn 1200, Tetovo, Macedonia; (phone: ++38971892044, e-mail: labazi@seeu.edu.mk)

M. A. Trpkovska, is Teaching Assistant at Faculty of Contemporary Sciences and Technologies, SEE Univeristy, Tetovo, Macedonia; (e-mail: m.apostolova@seeu.edu.mk)

A. B. Kadriu is with Assistant Professor at Faculty of Contemporary Sciences and Technologies, SEE Univeristy, Tetovo, Macedonia; (e-mail: a.kadriu@seeu.edu.mk).

higher education institutions are promoting the deliverance of online courses to convene student demands for learning and preparation flexibility.

The grounds of the Internet have universal application because of its suitable access, interactive interface, low rate connectivity, media potentials, and its possibility to feature interactive environments. The application is even greater when higher education institutions consider instructional costs, student insists including an increasing population of adult learners, and competition from other higher education institutions. As a result, the number of online courses and related student enrollment has missile in recent years.

The general problem with online courses is in quality. In the run to offer online courses, some higher education institutions have created standardized measures for course development however all courses are treated unchanged regardless to their implicit necessities for teaching and learning. Other institutions have just pressured departments to turn their on-site courses into online courses. Even when training is provided, in many examples the focus is on the technology for delivery of the courses rather than on instructional and assessment strategies. In other cases, the courses are just a collection of materials including lecture notes and power point presentations with little teacher-student or student-student interaction and low intellectual motivation.

SEEU strive to be in line with the current trends in eLearning and go apply effective utilization of online education to enhance teaching and learning process. The use of eLearning in the majority of higher education institutions is identified by the use of Learning Management System (LMS), a system that is focused on the delivery and support of learning opportunities.

II. LEARNING MANAGEMENT SYSTEM FACTOR

SEE University's LMS experience is starting from the period 2006-2008 when SEEU initially started the usage of a commercial LMS (ANGEL) with various learning and managing tools. Although there is usually an adjustment period for most students and professors, as they learn the rhythm and patterns of online communication, the interest for using ANGEL has grown from year to year.

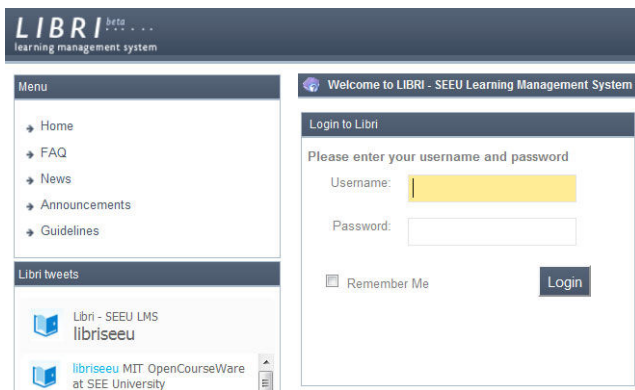


Fig.1 LMS - Libri (<http://libri.seeu.edu.mk/>)

Afterwards a new in-house LMS (Libri) was developed and integrated with other e-systems at SEEU [1]. The system is in use from 2008 to present. A lot of investigation based on user voice' has been done before and after the system was designed. The main aim was to detect the most important tools in a LMS from the users' perspective and also after the system was designed, developed and implemented at SEEU, the users were again the key drivers in the process of enhancing and further system development [2].

From the Distance Education perspective is very important that the teaching staff at SEEU was familiar with the LMS tools and possibilities. But, in the other hand new additional tools were added to LMS in order to enhance the communication and the evaluation of the students in distance. This required additional training of the staff for the use of new LMS tools.



Fig.2 Distance education lab

As the growth of online courses offerings continues to raise, students, educators, researchers, and institution have raised concerns about quality [3]. In response to these quality concerns, despite of implementing learning management

system, South East European University prepared a distance education lab (Fig.2) with all the needed equipment for recording lessons.

III. METHODOLOGY OF TEACHING IN DISTANCE

In order to establish a successful online program after the establishment of the technical tools such as the LMS and the Distance Education Lab another key issue was raised. It was regarding the methodology of teaching in distance. The teaching staff was unfamiliar with the procedure of converting the course content used for teaching face to face in 'a form' that would be more appropriate for the teaching in distance. Although the courses are the same (for both face to face and distance teaching) the teaching staff need to reorganize and to rethink their teaching methodology once they decide to teach in the distance mode.

In this direction, a collaborative effort involving professionals from Indiana University took place in order to help to the teaching staff to produce online courses and teaching-learning strategies through organizing an online workshop training seminar (Fig.3).

The workshop contributed by exploring the design and development of effective online courses for teaching and learning in higher education. The participants were drawn from a variety of academic departments, including Contemporary Science and Technologies department, Business Administration and Languages, Culture and Communication departments what raised the level of the workshop, and provided confidence for the future sustainability of this pilot project.

The workshop comprised ten days in a computer laboratory situation, where the facilitator from Indiana University used the LMS (Libri) to support the workshop objectives of exploring the design and development of effective online courses. The detailed workshop description is consisted of:

- Introduction to Online Teaching
- Online Course Syllabus Creation
- Assessing your Current Course for Conversion
- Introduction to Recording Options
- Breaking content into Online Modules
- Introduction to Adobe Connect/Online Office Hours
- The Pedagogy of Online Teaching
- E Activities
- Addressing your Students; the Introductory Module
- Assessing the Online Student
- Communicating in an Online Environment
- Working with Students in an Online Environment

The main idea was the SEEU participants to begin adapting an existing course to work within the Libri environment, taking

into a consideration the learning theories, strategies and dominant methodology for online course preparation. Also a lot of new tools were presented to the staff in order to enhance their communication with the students in distance.



Fig.3 Online workshop training seminar

The initial point was the design of the syllabus for the online course. The syllabus must contain all the crucial data and it should be presented to the students in the very first module (usually named: Start Here). Distance learning involves not just activities but also content in a Web browser and actual learning materials delivered in Web format, therefore these information should be part of the syllabus as well [4].

The online syllabus must at least the following elements:

Course Information (Name of Course, Course Number, Term, Course Prerequisites, Course Description, Course Objectives, Required Text)

Instructor Information (Instructor Welcome to the Course, Instructor Contact Information, Instructor Office Hours)

Technical Requirements (Technical Prerequisites, Technology Needed to Access Course)

Grading Criteria (Assignments Participation in Discussions, Peer Reviews, Overall Grade Break Down Grading Scale)

Important Course How Tos (Navigate Libri and find important course component, Take online tests, Submit Assignments, Use the Forums, Get technical help)

Policies (Mandatory checking into Libri, Mandatory File Formats and Virus Free Files, Copyright Compliance, Student Policies, Email Policies and Procedures, Attendance Policies, Discussion Forum Policies, Submitting Assignments, Getting Instructor Feedback, Academic Dishonesty, What you can expect from your Instructor:

Course Calendar (Due Dates – Specific Time Zone Reference, Week-by-Week Schedule)

Another very important moment in the workshop was the ‘re’-organization of the course content in the LMS. In fact once the course content was “chunked” in modules or weeks depending on the course, for each module (or week) were prepared lessons, recordings, exercises and scheduled online activities for the students. Differently from the face to face learning when the teacher just uploads the lectures and the exercises in the LMS, in the distance course delivery the whole approach in the LMS use must be more descriptive. In fact within each module the first document is the Module Page which represents the *learning guide*. This document gives information regarding the module aim and outcomes, where the students can find the lessons, readings, recordings and additional materials for that particular module as well as the assignments and description for them. In order the distance student to read this document first, usually in the syllabus is clearly stated that the Module Page is the first document to be read in each module.

The tWeb-based learning involves not just activities but also content in a Web browser and actual learning materials delivered in Web format (Tsai & Machado, 2002).

	Name	Description	Owner	Created On
1	START HERE	INTRO TO THE COURSE	Labazi	Thursday, June 09, 2011 Delete Edit Move
2	INTRODUCTION TO PROGRAMMING ENVIRONMENT	WRITING THE FIRST CODE IN C++	Labazi	Monday, June 13, 2011 Delete Edit Move
3	BASIC DATA TYPES AND ARITHMETIC	CIN, COUT, DATA TYPES	Labazi	Monday, June 13, 2011 Delete Edit Move
4	CONTROL STRUCTURE	IF, IF_ELSE, WHILE, FOR	Labazi	Monday, June 13, 2011 Delete Edit Move
5	ARRAYS	DEFIN., DECLAR., EXAMPLES	Labazi	Monday, June 13, 2011 Delete Edit Move
6	FUNCTIONS	DEFINITION, EXAMPLES	Labazi	Monday, June 13, 2011 Delete Edit Move
7	SORTING AND SEARCHING ALGORITHMS	BUBBLE SORT, QUICK SORT, ...	Labazi	Monday, June 13, 2011 Delete Edit Move
8	POINTERS	POINTERS DEFINITION, POINTERS ARITHMETIC, POINTERS AND ARRAYS	Labazi	Monday, June 13, 2011 Delete Edit Move
9	STRINGS	STRINGS AS CHAR SEQUENCES	Labazi	Monday, June 13, 2011 Delete Edit Move
10	FILE PROCESSING	SEQUENTIAL AND RANDOM ACCESS FILES	Labazi	Monday, June 13, 2011 Delete Edit Move

Fig.4 The Structure of the course in modules

IV. CONCLUSION

The number of students entering higher education is increasing globally and the demand for higher education is expanding exponentially throughout the world. This can be seen as a result of changes in career profiles (people regularly need to be trained in order not to lose their job), global politics (usually democracy is accompanied with raising the number of students in higher education) as well as global knowledge economy (people are not limited to local employment markets).

Many institutions are struggling to find a way to manage this expansion in higher education. While the physical campuses have their limit, e-learning is the perfect answer to this issue. "E-learning technology is a proven way to expand an institution's enrollment capacity without the capital outlays for new construction. Institutional infrastructure can be built virtually rather than physically, often at lower cost"[5].

Certainly, e-learning doesn't have to be the only way to deal with the expansion on higher education, especially if we are discussing for face to face learning. But, e-learning may represent at least the most suitable alternative, particularly for certain groups, for example postgraduates who, often overloaded with obligations, need to work while they continue their studies. It also represents a practical way for many institutions to offer distance, or at least blended learning which combine face-to-face and online delivery.

Hereby, given that LMSs have become a widely used technology in higher education institutions, then a special consideration must be given to their development and use. Learning includes a wide range of subjects as well as various teaching approaches and obviously it is a very complex issue to design a system that would meet all these needs [6].

The experience at SEEU has shown that in the majority of cases the teaching staff mostly used the LMS for uploading their teaching contents while students were mostly using it for submitting their homework [7]. With the start of distance education the other tools such as those for communication and evaluation started to be used more and more although the problem remains that the use of these tools is time consuming and it's difficult to motivate the staff to use them.

The experience in the workshop that we had with expert from Indiana University showed that the whole course must be reorganized in order to start to teach in distance. A completely new syllabus much more detailed and descriptive should be prepared if the course is taught online. A lot of recording and communication tools are available, but staff trainings must be continuous in order to learn how to use them and to be aware of them so that they can incorporate them in their syllabuses. Also a new practical issue in the use of LMS was the Module Page, which contributes a lot in describing the Module content to the distance student.

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