

E-LEARNING IN CROATIA

Dragana KUPRES, Daliborka PASIC

Learning at a distance with the use of new technologies, in a problem-solving and learning community environment is a shift in Croatian educational context, and it cannot be called a tradition of distance education or e-learning.

Even so, we are witnessing a rapid growth of e-learning in Croatia in the last few years, mostly in Higher Education. This article presents the context of emerging e-learning trends in Croatia, as well as most demanding educational project carried by Croatian Academic and Research Network - CARNet, the E-learning Academy (ELA). ELA consists of three online one-year long programs in the subject-matter of e-learning, aimed at academic managers, teaching staff and technical support staff.

Key words: *e-learning, e-learning growth in Croatia, management of e-learning.*

Introduction

Strong commitment of Croatian government to join the EU and support all the necessary reforms has been emphasized during the last four years, after 10 years of political indifference toward the EU enlargement. Support of the Bologna process is in place (NPIEU, 2004).

The teacher education with implicit call for a more learner-centered curriculum and critical thinking are suggested but still not accepted educational part of the strategy for development of Croatia "Croatia in 21st century" (Office for Strategic Development of Republic of Croatia, 2002).

Still, there are no official surveys in the area of technology usage in education in Croatian educational system. Still, it is possible to apply Zemsky and Massy's E-learning adoption cycle to the Croatian e-learning market. The described context is based on the perception and experience on a number of different projects carried by CARNet in the Croatian higher education (CARNet, 2004).

1. E-learning Adoption Cycle in Croatia

It can be seen that most of the changes related to implementation of e-learning in higher education institutions in Croatia are made in the area of enhancing already existing courses and programs that were thought in a traditional way in the classroom with heavy emphasis on transmission of knowledge. PowerPoint has emerged as a dominant design for this enhancement, making little if no change in the way professors teach their classes. Furthermore, the pedagogy was not influenced by usage of technology as a support for classroom education (Zemsky and Massy, 2004). While PowerPoint as the dominant design is entering the early majority market, course management systems usage is still used by innovators. Although CARNet is providing WebCT licenses free of charge to members of Croatian academic community, there is still a number of different homemade learning management systems, including the only Croatian commercial LMS product "e-Learner". These solutions are still struggling to find its users, and we cannot say that the dominant design has emerged. There is also no evidence of development or importation of course objects, or building new courses or programs (Zemsky and Massy, 2004).

2. Lack of Distance Education Tradition in Croatia

These findings can be related to no tradition in distance education, regardless of technology used. There have been few correspondent courses organized in Croatia, but without wider acceptance. It is impossible to talk about a developed lifelong learning system, and also the roots of distance education tradition cannot be tracked. For example, Open Universities in Croatia offers a number of face-to-face courses, but almost none at a distance (Open University Zagreb, 2004).

Since Croatia is a relatively small country with the area of 55.000 km² and 4,4 million inhabitants, there was no large interest in development of distance courses, like in the countries with large territories. The lack of distance education tradition is one of the reason e-learning is being very slowly adopted in Croatia.

3. E-learning growth in Croatia

Still, a rapid growth of e-learning in Croatia in the last few years is witnessed, mostly in Higher Education, and it can be attributed to few factors:

- already existing CARNet Internet infrastructure connected through the pan-European research network GEANT, at the current connection speed of 1,2 Gbps;
- efforts of lonely rangers - pioneers willing to explore new frontiers even without policies and support (Bates, 2000);
- activities in the field of education, promotion of e-learning and support in the usage of technology in education, provided and organized by the Croatian Academic and Research Network - CARNet (CARNet, 2004).

3.1. Croatia in the Region

Evidence to that effect can be found in the currently still unofficial European Training Foundation - ETF report of the research on the use of technology-supported teaching in the area of the area of Western Balkans (ETF Newsletter, 2005).

According to ETF research, Croatia excels in the Southeastern region of Europe in the number and quality of examples of the use of E-learning in higher education.

In this research Croatia was recognized as the country, which invests by far the most into technology with the aim to improve teaching, especially in higher education. Croatia was also marked as the most developed in relation to future development plans, with CARNet as the generator of stimulation and promotion of the development of technology-enhanced teaching.

3.2. Downsides

However, other results of the ETF research provide a less optimistic image. In relation to national programs, especially legislative regulations, implementation of assessment criteria and strategic plans about the development of technology-supported education, the situation in Croatia and the rest of the examined region is equally disappointing. Distance education is not a part of any virtual national documents, development strategies for technology-supported teaching do not exist or have not yet been implemented, and there are no state institutions in charge of defining the legislative that should enable the development of e-learning on a national level. The Croatian e-learning projects still stay individual, separate and mutually unconnected.

Furthermore, they lack of quality standards, as opposed to growth of quality awareness as "probably the most influential factor of e-Learning developments in recent years" (Policy Paper of the European ODL Liaison Committee, 2004). Last but not least, the technology used is more advanced than the implemented pedagogical strategies. All this can be seen as a result of:

- lack of institutional support and policies;
- lack of national policies in the area of e-learning, vocational education, life long learning, adult learning;
- emphasis on a strong traditional educational system and transmissional educational methods with a teacher-centered approach;
- lack of new research and development in pedagogical studies, especially related to technology-supported education;
- lack of communication and promotion of good case studies;
- lack of a systematic education in the field of e-learning.

4. E-learning Academy (ELA)

As an answer to some of the stated challenges, in 2003 CARNet initiated the E-learning Academy, the educational project, which was to offer the up-to-date global knowledge about e-learning within the local *transitional country context* in the light of new educational reforms that Croatia is facing.

The E-learning Academy consists of three programs for professional human resource education necessary for the development of e-learning at national level:

1. E-learning Management
2. E-learning Tutoring
3. Course Designer

ELA Program Committee blueprinted a curricula framework, which received positive international review (Kupres, Gojsic, Tingle, Zimmer, Pale, 2004). Several potential international partners have been

invited to submit their proposals. A team of experts has been chosen from the University of British Columbia (UBC) from Vancouver, Canada, headed by Mark Bullen, PhD, director of the MAPLE - Managing and Planning Learning Environments, and Jeff Miller, instructional designer and project manager at UBC.

UBC team has joined Program Committee in blueprinting the curricula. UBC project team is developing programs' content according to proposed curricula blueprint and is implementing them into the online environment.

A part of the CARNet project team is actively participating in the development of the curricula, taking into account the need to adapt the content to the Croatian market and the Croatian context. A special attention is given to the development of case studies modeling local projects of technology usage in education from the Croatian academic context.

4.1. The Management of E-learning

"The Management of E-learning" program encompasses the fields of a strategic planning of e-learning implementation, as well as of establishing and adapting the appropriate e-learning organization and technical models. It is intended for medium level management and administration in higher education institutions that are still in early phases of e-learning implementation or are planning to introduce technology into the teaching process.

After completing the program the participants will have acquired the understanding of different approaches to e-learning courses and programs and of the advantages of each program. They will be able to understand the relations and the differences between e-learning, distance learning, blended learning and other forms of technology supporting learning. After completing the course the participants will be able to recognize the key theories of learning and teaching, to evaluate e-learning projects, to determine if they contain suitable technological solutions and pedagogic approaches and to develop an appropriate e-learning support.

4.2. E-learning Tutoring

"E-learning Tutoring" is a program that includes topics from the fields of pedagogy, psychology, sociology and communication sciences. Future e-tutors will first define their role in the process of e-learning and then work on various types of support necessary in an online environment. It is aimed at professors, teachers, instructors and tutors, that is, for everybody who is already using or planning to introduce the online component into their teaching.

4.3. Course Design

The content of the program of "Course Design" primarily involves the principles of development of online courses with the help of information and communication technologies. By perfecting their technical skills, the participants will learn the techniques necessary for the development of multimedia educational materials and understand how the e-learning system functions. After the graduating, they will be able to participate in planning and implementation of e-learning in their own environments, through the design and realization of instructional materials, in cooperation with subject experts. It is intended for teachers, technical and other support staff who are interested in planning and developing online educational materials and learning activities.

4.4. Instruction and Student Support

"The Management" in an e-learning pilot program started in October 2004 and is currently in progress. The first generation included 27 participants, four of which from NGO organizations, one from the business and 21 from the academic sector. In March 2005 CARNet enrolled the first generation of participants in E-learning Tutoring and Course Design programs. Applications for these programs have already started and were running until February 7, 2005.

All three programs will have two intakes per year. The first generation of programs was run exclusively in English, while the Croatian version was introduced in the fall of 2005. The programs are bi-semesteral delivered in a mixed mode - three face-to-face workshops (at the beginning of the 1st and 2nd semesters and at the end of the program) and distance videoconference lectures.

The instruction provides a high degree of participant-participant and a participant-tutor interaction through online discussions, e-mail or face to face. Individual and group online activities (learning, research and study, individual and group assignments, participation in discussions and

project writing) take up approximately eight hours a week, which totals to 272 hours. With additional 48 hours of face-to-face instruction each program totals 320 hours of instruction.

Tutors working on all three programs of the first generation are professors from the University of British Columbia. Instruction is conducted in English and the participants have the opportunity to communicate with and learn from some of the world experts in e-learning.

5. Instead of conclusion - future plans

In order to accomplish its mission, ELA will use research, promotion and teaching about methods, theories and best practice examples of e-learning application, to enable the development of experts in Croatia and the Central and South-Eastern European region who will stimulate and implement e-learning in their environment. CARNet considers offering the ELA programs regionally. Citizens of several ex-Yugoslavian countries can easily use and understand Croatian, which makes the idea of courses in Croatian even more attractive in this region. Croatian emigrants are another group who might find such program in their native language interesting. At the end, participants from the countries of Central and Eastern Europe can find interest in ELA programs, considering the similarities between these countries and Croatia in their past educational systems and present transitional political and technological context.

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