The Development of E-learning at the University of Ostrava

Rostislav Fojtík

Abstract: E-learning is modern form of education but preparation courses for distance education is very difficult. The University of Ostrava started the new project that has name “Virtual University”. We can divide courses for E-learning: on-line courses and off-line courses for distance and present education. A course comprises of lesson. Basic types of lessons are introductory lesson, lesson for teaching, lesson for revise and testing, administrative lesson. All lessons for teaching has parts: a content, a schedule, a quiz and a test, an information and an administration, a literature. A testing is necessary for feedback. A tutor has important role during teaching. He is manager education.

Key words: E-learning, education of distance, on-line and off-line course, tutor, lesson, testing, feedback

INTRODUCTION

Information and communication technologies influence a preparation of texts for education. Computers and Internet provide new eventualities for education of distance. When we compare E-learning with traditional classroom training, E-learning has many advantages. Training materials and instructional information are delivered electronically over the Web, through an organization’s intranet, or via CD-ROM.

E-LEARNING AND THE UNIVERSITY OF OSTRAVA

The University of Ostrava started the new project that has name “Virtual University”. Our University cooperates with VŠB – Technical University of Ostrava and The Silesian University. We purchased the software ToolBook II Instructor for production education courses and the software Tutor 2000 for regulation and management education. At present the team is constituted the team of experts and first courses are prepared.

The Department of Computer Science organizes the bachelor studies Appliqued informatics. The education has the form of distance. The Introductory Tutorial usually begins a teaching.

The Introductory Tutorial contains:
- introduction all tutors and teachers
- assign account for Virtual Learning Environment
- use computing classroom
- all materials for learning

Students receive for every course all electronics materials, software, tests, computer account, homework and a schedule. Some courses were delivered electronically over the Internet in Virtual Learning Environment (VLE) Lotus LearningSpace and Tutor 2000. Virtual Learning Environments are learning management software systems that synthesize the functionality of computer communications software and on-line methods of delivering course materials. [2] At first students were physically handicapped. At present this bachelor studies is very sought-after and popular.

Advantages education of distance over the Internet:
- student learns at arbitrary time
- student needs not commute at school
- student can study although he is full-time
- student can be physically handicapped

The Departments of Computer Science at The University of Ostrava and at The University of Nitra in Slovakia are trying to solve the problem of high number of students of information technologies by this new approach.
COURSES FOR E-LEARNING
We can divide courses for E-learning into four types:
- On-line courses for education of distance
- Off-line courses for education of distance
- On-line courses for present education (face to face)
- Off-line courses for present education (face to face)

On-line courses for education of distance – this form is the most difficult. The most training materials and instructional information are delivered electronically over the Internet. The teaching can take place by synchronous or asynchronous forms. The throughput of computer network limits the quantity of information.

Off-line courses for education of distance – the training materials are delivered via CD-ROM or other medium. All lessons can contain more information and data. The transmission of lesson isn’t dependent on the throughput of computer network. It is possible use more multimedia, video and audio. The instructional information, homework and self-tests are delivered electronically over the Internet or Intranet.

On-line and off-line courses for present education serve only as the complement the presentation teaching. [3]

SCHEME OF COURSE
The E-learning needs quality teaching methods and methodologies. The teams of experts have to participate at the production of the courses for E-learning.

The teams of experts:
- experts at capacity of a curriculum
- experts at didactics
- pedagogues and psychologists
- graphic designers
- computing technicians

Every lesson must not be long and laundry. A lesson could take as a standard seminar and a lecture (that is 1-2 hours). A course comprises a several types of lessons:
- introductory lesson
- lesson for new curriculum
- lesson for revise and testing
- lesson with assign a task to a student
- administrative lesson

INTRODUCTORY LESSON
The introductory lesson is important for a student so that he knows all requirements and structure of this course. This lesson comprises a content of a curriculum, a plan and a scheme all lessons, conditions and requirements for finishing, a literature and a schedule.

A LESSON FOR A NEW CURRICULUM AND ITS A SCHEME
The course for education of distance has to inform a new curriculum but the course has to guide students. The courses for E-learning aren’t only electronics textbooks but they have to contain objects, feedback, operating elements, resume etc.

A scheme of this lesson:
- preface
- content of this lesson
- chapters
- tests
- resume
- sources of information

When we specify objects of our lesson, we must use active verbs. All objects dispose knowledge, understanding, utilization, analysis, derivation or recognition. [1]
FEEDBACK
Every lesson must include feedback information.
- simple questions to text
- questions for reflection
- exercises, examples and models
- tests
- case studies
- homework
We can divide assignments:
- Multiple Choice with one regular answer
- Multiple Choice with more regular answers
- Multiple Choice with qualification of specificity answers
- True-False
- Assignment and task for assign or arrangement
- Open assignment with simply answer
- Open assignment with wide answer
ToolBook II Instructor provides many tools and components for production of electronic course. It is possible to use imagines and multimedia, to change appearance of courses, to evaluate tests and assignments. [8]

TUTOR
This tutor is the manager of education and he has to communicate with all students. This communication motivates and leads every student. The tutor communicates with all students by synchronous (chat, ICQ, videoconference) or asynchronous forms (e-mail). He must answer ready and periodical. Tutor's work is very difficult and persnickety.

The tutor must:
- inform all students with conception and content of a course
- characterize methods of learning
- describe style of communication
- define homework, requirement and the deadline of examination
- motivate students
- guide students, guide workshops, e- conference
- evaluate

![Diagram showing the following relationships:
Experts at capacity of a curriculum
Experts at didactics, pedagogues and psychologists
Computing technicians
Production course
Teaching
Information system of University
Tutor
Students]
Because the preparation courses for E-learning is very difficult The University of Ostrava started the project that has name “Virtual University”. This University cooperates with VŠB – Technical University of Ostrava and The Silesian University. We want build the integral system for E-learning. At first we prepare on-line and off-line courses for education of distance or for present education. The partnership with other universities is highly important.

REFERENCES AND LITERATURE
http://www.osu.cz/, on-line
http://virtualni.osu.cz/ on-line

ABOUT THE AUTHOR
Mr. Rostislav Fojtík, Department of Computer Science, Faculty of Science, University of Ostrava, Czech republic, tel.+420 696160229, e-mail: rostislav.fojtik@osu.cz