# Educational Project Countdown

Petra Samková
Czech Technical University in Prague, Czech Republic
samkova@fel.cvut.cz

Jaromír Hrad
Czech Technical University in Prague, Czech Republic
hrad@fel.cvut.cz

*Abstract* – **The "ELefANTS" project (E-Learning for Acquiring New Types of Skills), belonging to the EU program Leonardo da Vinci, started in 2004. Basically, it is an educational project using e-learning approach, in which 12 partners from 7 European countries have been involved. The Department of Telecommunication Engineering (Czech Technical University in Prague, Faculty of Electrical Engineering) acts as a coordinator of the project. This paper describes the principal ideas of the project, its initial conditions, target groups, as well as its objectives and practical results, and also the current phase of the project implementation. Furthermore, we introduce the ideas related to the future perspectives of the project.**

*Index Terms* – e-Learning, Lifelong learning, International cooperation, Inclusivity.

## MAIN OBJECTIVES

The main purpose of the project (see [1]) is to help people handicapped in a specific way to enter the job market and increase their opportunities to be integrated into the work process.

The term "handicap" has been used in its wider sense. It does not refer only to persons with physical handicaps, but also to those who have been out of the labor market for a relatively long period. We consider as handicapped people, for example, parents returning from maternity leave back to work, persons coming from prisons, having finished their terms, people having been ill for a long period or employees who, progressively, increase their qualification and skills. Compared to traditional forms of education, we can find many advantages of increasing the qualification with the help of e-learning courses: let us note, for example, lower training costs, almost unlimited capacities (concerning the number of students) and, last but not least, the possibility to return to already studied topics. The e-learning methods open for handicapped people the opportunity to choose the most appropriate pace of training.

The main contribution of the project consists in the development and evaluation of e-learning tools, which supports the placement of trainees in the job market.

## THE PROJECT CONSORTIUM

The whole project consortium has twelve partners from seven European countries – Czech Republic (Czech Technical University in Prague, Faculty of Electrical Engineering, Department of Telecommunication Engineering; Alcatel Czech s. r. o.; CELN – Czech Efficient Learning Node o. s.; Charta 77 Foundation; Kybertec s. r. o.), Slovak Republic (Slovak University of Technology in Bratislava; Society of Lifelong Learning Bratislava), Poland (Poznań University of Technology), Slovenia (University of Maribor), Germany (Alcatel SEL A.G.), France (ISEP – Institut Supérieur d'Électronique de Paris), and United Kingdom (University of Central Lancashire, Lancashire Business School). The individual partner organizations participate in different project tasks. The international cooperation within the project is important for various regional-specific contributions to the factual content supplied by the partners. The courses described below are prepared in seven national languages of the consortium; thus, they will become useful and interesting tools for professional training and education, as well as for language reference.

## THE COURSES

The principal task of the entire project is to prepare two e-learning courses. The first one, within its nine modules, provides an overview of working with a personal computer from the very beginning, explaining the fundamental concepts of networking, teleworking and Customer Relationship Management (CRM). The second course introduces the contemporary automation technology, control systems, communication systems, logical systems design and programming methodology, numerical algorithms, digital systems, controllers and filters, simulation and modeling of real processes, fuzzy logic and fuzzy control, intelligent systems, and artificial intelligence in automation. The substantial portion of materials for the first course has been worked out by the team from the University of Central Lancashire, while the absolute majority of the materials for the second course comes from the Kybertec company.

We have proposed a specific methodology suitable for education of people with mobility limitations in the area of teleworking. The modified blended learning approach seems to fit our purposes quite well. The methodology has been also prepared as a 15-page document in 7 national languages so that is available for the trainers in each partner country.

The seven language versions are not totally identical as they contain national-specific information reflecting local differences in the relevant subjects.

The first stage of authoring consisted in collecting and processing of relevant information into the form of "scripts" for multimedia authoring. Since we wanted to have the courses available online, we had to choose a suitable environment and Learning Management System (LMS). We decided to use Moodle as it can be easily used for implementation of several language versions (unlike, for instance, MS Class Server). The ease of implementation of national versions is crucial for the project to be successful.
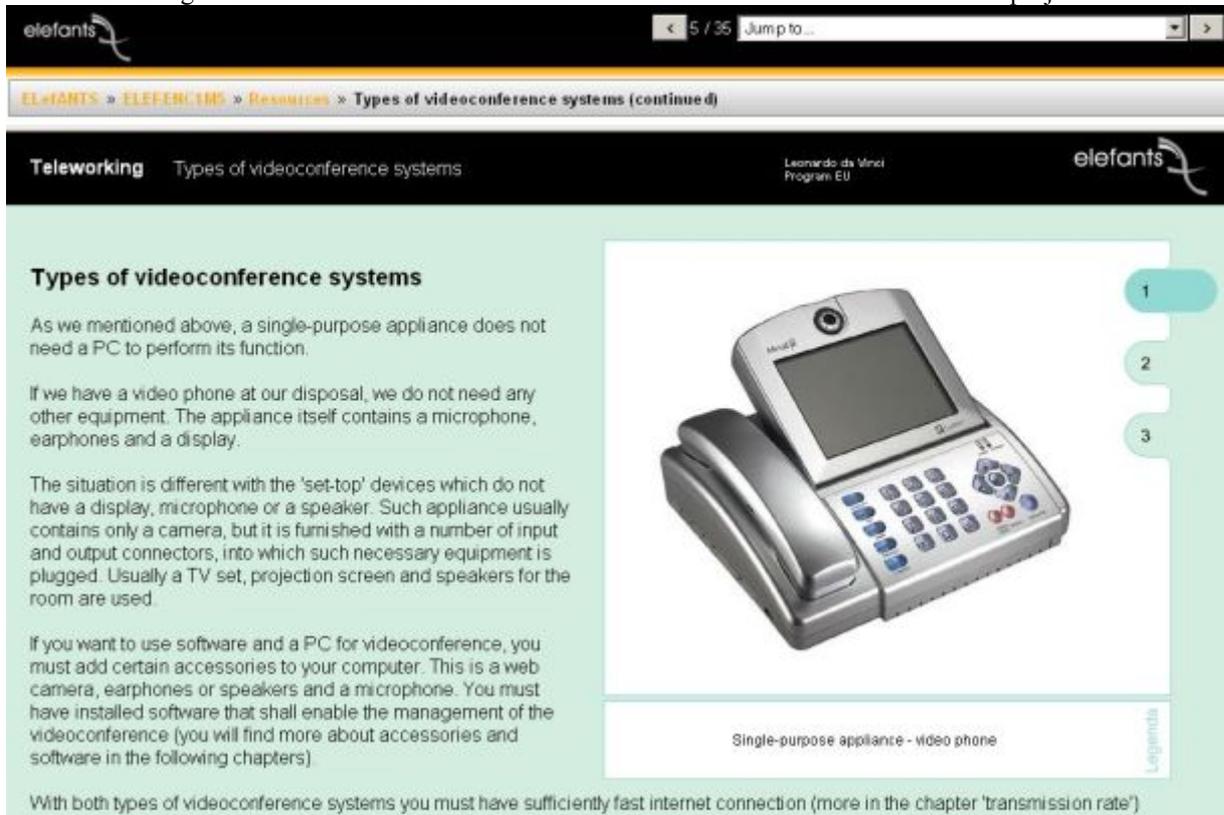


FIGURE 1
EXAMPLE OF A PAGE FROM THE PILOT COURSE

In order to attract attention of prospective trainees, we paid special attention to the high quality of graphic layout and design. However, we decided to reduce the multimedia means of expression in favor of simple structure and fast response, which are crucial for individual online study. Basically, the individual modules are composed of "slides" containing texts and images, enclosed in a "browsable" structure (providing users with navigation elements). The organization of files is designed in a way that allows easy translation of the factual content into national languages and simultaneous existence of all national versions in the same learning management system.

### THE FINAL PHASE

The factual content and implementation of the project have been in accord with the time plan and project aims. The project has recently entered its final stage. Preparation of particular courses has been also almost completed. Nowadays, the main project tasks are training of tutors and marketing activities, which are aimed at enrollment of students (trainees) from the respective target groups. Our efforts to develop high-quality e-learning courses using modern multimedia technology and other means enabling communication between the tutor and trainees are now being verified during the pilot testing.

Participants' comments and recommendations as well as other feedback will be obtained through a survey based on a questionnaire. Questions are focused on the benefits coming from the training phase. The trainees will be asked whether they have found the courses interesting and to what extent they consider the provided information useful.

Another crucial part of the survey tries to find out whether the trainees have gained new skills and experiences, and whether or how their work habits have changed.

We are well aware of the fact that feedback is an important part of the educational process since it helps to evaluate performance, skills and overall quality of the tutors and of the course itself. The survey results should be available in June 2007.

On the basis of the feedback, gathered experience and comments from all trainees of the pilot courses, we will subsequently perform the appropriate changes to the training materials in order to optimize the final version of both courses for the purposes of self-study in the dissemination phase of the project. The finished courses should offer the opportunity for re-qualification to the interested people – even after concluding the project: the courses should "live

independently". We will also try to obtain accreditation for both courses on national levels.

## REFERENCES

[1]   http://elefants.cvut.cz