

<b>Document title:</b>	<b>Report on Study Visit to University of Porto (Universidade do Porto), Porto, Portugal</b>	
Study visit host:	Alfredo Soeiro, vice-dean at the Faculty of Engineering & Rita Falcão, Head of e-Learning Unit at the University of Porto	
HR participants:	† Vladimir Braus, University of Zagreb, † Sandra Kučina-Softić, University of Zagreb † Dr. Marta Žuvić-Butorac, University of Rijeka † Lucijana Leoni, University of Dubrovnik † Joško Mikuš, University of Dubrovnik	
Duration of visit:	October 18-22, 2006	
Report prepared at	October 2006	
Report prepared by	Sandra Kučina Softić	

## I GENERAL REMARKS

Study visit to University of Porto (<http://www.up.pt>) is the fourth study visit of Croatian representatives to European consortium partners realized within the framework of the EQIBELT project. As for all study visits, this one has had the purpose of acquiring the knowledge and experience through direct contact with experts and practitioners in the field of e-learning, to learn best practices, to discuss and analyze successful and unsuccessful projects and to have on-site practical overview and experience on organization and delivery of support in field of e-learning.

The host of the study visit and the organizer of the program were **Alfredo Soeiro, vice-dean at the Faculty of Engineering and Rita Falcão, Head of e-Learning Unit at the University of Porto**. They welcomed us at the Rectory building and presented us scheduled program of our visit. Topics of the program were e-learning at the University of Porto and their e-Learning Unit and implementation of e-learning at the Faculty of Engineering and at the Faculty of Sciences – Computer Science Department. The program included presentations prepared and delivered by employees of University of Porto involved in the e-learning education programs in the institution. Presentations were held by:

- ☛ **Dr. Ligia Ribeiro**, Pro-Rector and Director of the Digital University: UP Digital University
- ☛ **Rita Falcão**, Head of e-Learning Unit: Vision>Mission>Strategy of e-Learning Unit
- ☛ **Prof. Jaime Villate, Faculty of Engineering:** e-Learning at the FEUP
- ☛ **Prof. Álvaro Figuera, Faculty of Sciences, Computer Science Department:** Interoperability with e-Learning Systems

Also a videoconference was held with

- ☛ **Prof. Sebastian Foti**, University of Florida, Education and Multimedia Expert: Prof. Foti was invited expert at the University of Porto and helped in the process of establishing the e-Learning Unit.

Each of the presentations was followed by discussion.

Visit was well prepared and organized by University of Porto, providing contacts with high competent experts and very useful discussions on topics relevant to project goals and objectives.

## **II FACTS FROM PRESENTATIONS & REFLECTIONS ON DISCUSSIONS:**

**Dr. Ligia Ribeiro**, Pro-rector and the Director of the Digital University:

*Presentation of the University of Porto Digital University*

---

### Facts & figures about University of Porto (UPorto):

- state university and largest university in Portugal
- 14 Faculties, 72 Institutes and R&D centers, 27 000 students, 2000 professors
- UPorto - research university
- Faculties have a strong autonomy (also financial)
- Faculties and Departments divided all over the city and others cities nearby
- Strong university policy on continuing education and interdisciplinary research
- External evaluation of the research institutes
- Ministry finances faculties according to the number of students (also with National Foundation for Science give financial support for research)
- ICT is a part of university strategy plan (pro-rector in charge for ICT)
- tuition fee per year is 800 euros for students who don't study on the behalf of the state

### IT Strategic goals

- Department within the institute for common resources and initiatives - Digital University with a role for coordination and implementation of IT strategy
- Information, Communication and Computation infra-structures and services are considered essential for the development of the University
- Information system of the University installed on all the faculties, University portal connects all faculties and providing the information
- Main IT goals for the next four years: Networking, High-Performance Computing, Information Systems, Digital Library, Digital Archive, IT for Education
  - Networking:
    - to have 100% WLAN Access (main student areas already covered)
    - implementation of Bologna process (mobility within the university and between the universities, interdisciplinary)
    - demanding applications
    - 24x7 support
  - High-performing computing: R&D centers, computational grids, bringing together and sharing of existing resources to overcome the needs and lack of finance
  - Information System:
    - Web-based academic IS for all faculties and UPorto
    - faster access and dissemination of information
    - collaboration and interaction between institutions
  - Digital Library:

- all faculties and institution libraries should have the same software application, common catalog (to achieve the same at the national level – in process)
    - library of standards
    - resources for disabled persons
    - authentication and authorization through the IS
  - Digital Archive: university policy to collect and preserve designated information in the digital archival way – in process
  - IT for Education:
    - increase IT labs and IT spaces at campus (e-learning coffee's at students facilities)
    - promote the increase of university courses that use university LMS facilities for teaching and learning (>50 new courses per year) – technical and pedagogical support, material resources also obtained from funding projects of National Foundation, award of excellence in online courses
    - create repository of the on-line resources and promote reutilization
    - support teachers of all the faculties in the use of IT for teaching and learning
    - 1<sup>st</sup> year students have blended learning courses, students from higher years and continuing education students – online courses
    - each semester there is a paper evaluation of courses and teachers on voluntary base - from next semester unified evaluation form for all university
- ☑ LAN at UPorto:
  - Faculties maintain the network
  - Mostly fast Ethernet
  - Administrative, research and education LANs
  - university provides network communication for all faculties
  - wired network and wireless network as the standard in buildings projects
  - 2 Mbit/s connection to the national network
  - NREN connect all education institution (public and private)
- ☑ e-University project:
 

The project was developed at the national level with the aim to develop the information society and e-government in Portugal and is one of the main keys of the Portuguese Information Society strategy. The main goals of the project are: promotion of the deployment of online services at universities; promotion of the conception, production and sharing of pedagogical contents; creation of community networks of knowledge at higher education. Strong emphasis within the project is made upon WLAN infrastructure therefore on facilitation of Internet and intranet access inside and outside the university campus and complementation of the existing LAN. Second main component is online services and pedagogical contents. Information system was developed by Faculty of Engineering and University management has bought it for university purposes. Today all the faculties have implemented this IS which was adjusted to their needs. LMS enables search through all faculties and all the premises.

## e-U: key factors of success

- Permanent awareness of management bodies
  - Information, participation
  - Local administrative and technical contacts identification
- Cooperation between technical teams
  - presentations, workshops, courses, exchange of information, ...
- Differentiate support
  - Deployment , troubleshooting
- Continuous surveillance
- Motivated and active team



WLAN in production

U.PORTO

Information system web pages have the same framework for some general information. Professors are obliged to fulfill some data regarding themselves and their courses. Web pages consists of lists of courses and their schedule, course information (programs, summary, ECTS points), plan and program, references to the courses, link to library system, possibility to create personal pages, information about students enrolled on the courses. All courses have annual report built automatically. On web pages you can make reservations for rooms, laptops and LCD's.



Central support is provided on the university level (main servers - Oracle, licenses, human resources). Faculties have to take care of the content. University pays annual fee to the Faculty of Engineering for the maintenance of IS but the code is opened for the upgrading in joined university programs.

Availability of the Information System is of great importance. All the reports previously done during months are now available in the system (number of PC's, equipment, educational programs, academic performance, publications, projects, student performance) and easily accessible.

---

**Rita Falcão**, Head of e-Learning Unit: *Vision>Mission>Strategy of e-Learning Unit*

---

E-Learning Unit promotes use of ICT to support learning or to improve its quality by contacting faculties and teachers. Unit provides two LMS (WebCT and Moodle) and support service for them. Also provided are training courses for teachers in using LMS. Tutorials have been developed as well to provide support for teachers and students.

Unit also organizes internal university training programs for using ICT in teaching (on voluntary bases for teachers). Unit provides service support in course planning (course design, multimedia development, and pedagogical activities).

Important part of Unit program is dissemination of the information through workshops, case studies, CD-ROMs, e-learning portal.

---

**Videoconference**

---

Videoconference was organized with Prof. Sebastian Foti, Education and Multimedia expert who helped at establishment and organizing of E-Learning Unit at the University of Porto. Prof. Foti has read outcomes of the workshop on e-learning support center in Cavtat and commended them. He emphasized the methodological and pedagogical perspectives as very important part of support provided by e-learning support center. Without this perspective, instructional designers could take the course and lecture it themselves. He stated that accentuation of the good practice of e-learning courses by university/faculty management and the exchange of achievements and experiences by professors is highly important (workshops, awards, recognition)

One of the issues were students and their openness to new learning styles, but they have to be presented to them thoroughly (instructions which should they read before taking in a course).

Issue of e-portfolio became strongly recommended as accreditation agencies wants to see the student work on the course in order to evaluate it. Another important issue that popped out during videoconference is student e-portfolio.

Prof. Foti stated: "Future is wide open and we can invent new ways to teach and learn."

---

**Professor Jaime E. Villate, Faculty of Engineering: e-Learning at FEUP**

---

- Faculty of Engineering use Moodle LMS platform. Prof. Villate adopted this platform in 2003 and worked on its translation in Portuguese language as well as its implementation at the Faculty. In academic year 2006/2007 opened is 652 courses. Technical unit supports Moodle.
- Why Moodle? The advantages of this LMS are free software which works in any computer with any operating system, modular design, its easy to modify and adopt, based is on sound pedagogical principles and is widely used all over the world.

- ☑ The modules which are mostly used in Moodle platform are: forums, assignments, quizzes and exams.
- ☑ Project MAFIQI: Assessment tests on Math, Physics and Chemistry for 840 freshmen were conducted. Results were known in the same day and the students had a full access to their results and correct answers for self-study.
- ☑ Web advantages for teaching: better accessibility, higher student motivation, easier development and distribution, contents sharing among teachers and Institutions and keeping the public informed about faculty activities.

**Professor Álvaro Figueira, Computer Science Department Faculty of Sciences:**  
*Interoperability with e-Learning Systems*

---

Presentation was held together with the **Professor Fernando Silva, Head of Computer Science Department Faculty of Sciences.**

- ☑ Faculty of Science developed in 1998 an application to assist lectures by providing learning resources to students. It was integrated with the faculty information system and included all modules from all undergraduate and postgraduate systems. This application didn't follow e-learning standards. Also there were a lot of requests for improvements in its functionality and user interface. So faculty faced the question whether to improve the system or adopt an open source e-learning platform.
- ☑ It was decided to adopt Moodle because it's an open source, it runs on Linux and on MySQL, it's possible to modify it and contributes with modules and follows some standards.
- ☑ In 2005 Moodle was presented to use on the voluntary base in order to test the system and get feedback from users.
- ☑ In 2006 begins the general usage of the system by lecturers. E-learning is used as addition to teaching. All lectures are face to face and web platform is used for course contents, e-mails, quizzes, course information and schedules, assessments, exam, grades and so on.
- ☑ Setup for new academic year.
  - all modules had to be created automatically
  - all lectures had to be added accordingly to schedule provided by the Departments
  - all students had to be subscribed in modules for which they have registered
  - need to group some modules in one entity in Moodle

