THE E-LEARNING RESEARCH, INNOVATION AND TRAINING CENTER OF THE UOC

Report on activities
Based on a networked research and innovation model, the eLearn Center (eLC) is an interdisciplinary centre working on three main lines of e-learning: research, innovation and training. These three lines interact and are mutually enriching.

The eLC’s mission is to establish stable collaboration with research and innovation centres and bodies nationally and internationally, while consolidating knowledge production and training in e-learning. The centre aims to support collaboration among the UOC’s teams of professionals and other institutions in search of innovative ways of working with e-learning.

Since its creation in 2009, it has worked on articulating the eLC’s activities and strongly growing its community. During 2010, 10 associate research and innovation groups have been added, which have started up or continued a total of 37 projects. Likewise, the number of pre- and post-doctoral researchers visiting the centre has increased.

With regard to the centre’s own activities over 2010, three transversal projects have been continued: the Time factor in e-learning research programme (which began in 2009 and will run until 2012), the 2010 Horizon Report Iberoamerican Edition, and the Conceptual framework of e-learning project.

There was also intense work to set up the new doctoral programme in Education and ICTs (e-learning) for 2011.

It is my pleasure to send you the eLC 2010 Report on activities. We count on you to help make the centre grow and to contribute to its e-learning activities.
THE CENTER

CREATED EARLY IN 2009, THE eLEARN CENTER THIS YEAR CONSOLIDATES ITS ACTIVITY IN RESEARCH, INNOVATION AND TRAINING IN E-LEARNING

Focussing its activity on higher education and continuous training in e-learning, the centre aims to:

1. Make a substantial contribution to research and innovation in the use of technologies for virtual learning and training.
2. Promote good educational practices based on the use of innovative ICTs that improve teaching and learning processes.
3. Boost training in e-learning by way of its own high-level range of training programs incorporating results of research and innovation, facilitating the transfer of these results.

Research

Responds to the problems posed by e-learning from a multidimensional perspective. The Research Program 2009-2012 Time factor in e-learning focuses on aspects such as:

1. Synchrony
2. Rhythms of learning
3. Students’ length of stay

Innovation

Promotes and consolidates innovation processes in e-learning that emerge within the institution, proposing and developing ideas, experiences and innovative products whose continuity lies inside or outside the UOC. Focus of interest:

1. Collaborative production of knowledge
2. Assessment and (self-)regulation in the attainment of competences
3. Learning in immersive environments

Training

Contributes to the generation of knowledge on the function and appropriate use of e-learning and its transfer through training processes. Range of offers:

1. University Master’s Course in Education and ICTs (e-learning)
2. Postgraduate diplomas and specialization courses
3. International certificates
4. Internal training programmes
5. Tailor-made training programmes for institutions

Dissemination and Internationalisation

Promotes dissemination of the Center’s production, results and activity in international networks and scientific publications, and provides resources addressed to the creation of community, by way of:

1. Monthly newsletter eComunica’t
2. Website: elearncenter.uoc.edu
3. 2.0 websites for the community
4. eLC publications

LINES OF WORK

Research, innovation and training share 3 priority lines of work:

1. LINE 1. Teaching and learning processes
2. LINE 2. Organization, management and educational policies
3. LINE 3. Technological resources for learning

RESEARCH, INNOVATION, TRAINING AND DISSEMINATION: MUCH MORE THAN A RESEARCH CENTER

The centre is organized in four areas: Research, Innovation, Training and Dissemination and Internationalization.
THE COMMUNITY

The members’ relationship is made effective through their participation in concrete research, innovation and training projects.

A PLURAL COMMUNITY
Researchers, academics, professors and managers of e-learning constitute the community of the Center.

AN INTERDISCIPLINARY COMMUNITY
The eLC approaches research in e-learning from different perspectives: education, healthcare, tourism and culture.

A GLOBAL COMMUNITY
Researchers from many parts of the world contribute to the Center’s research activity.

A GROWING COMMUNITY
From the 30 associated members at the moment of its creation, in February 2009, the eLC has reached 120 by the end of the year 2010.

THE PROJECTS

The eLC has set in motion various working programmes that have laid the foundations for its activity in the coming years.

TIME IS THE KEY

The centre’s Research Programme, 2009-2012, aims to provide solutions to specific e-learning problems related with the temporal dimension. It focuses thematically the activity of the researchers who collaborate with the Center.

OBJECTIVE:
- Gather together actions and decisions on the time factor in online education with the aim of improving learning.

RESULTS OBTAINED:
  A six-monthly digital magazine that publicises research in e-learning from a multi-disciplinary viewpoint.

RPSeries Number 0: Time Factor in e-Learning. Coordinated by Dr. Elena Barberà

Articles:
- eLC Programme about time factor. Elena Barberà
- Impact literature review, references. Begoña Gros, Elena Barberà, Paul Kirschner
- Relevant voices around the world. Tony Bates, Mark Bullen, César Coll Salvador, Betty Collis, Michael Moore, Lalita Rajasingham

RPSeries Number 1: Time Factor in e-learning and assessment. Coordinated by Dr. Margarida Romero

Articles:
- Assessment of e-learners temporal patterns in an online collaborative writing task. Virginie Demeure, Margarida Romero, Niki Lambrapoulou
- Temporal and assessment dimension: characterisation of feedback after assignments. Anna Espasa
- Interaction patterns over time in online discussion. Ibis Alvarez, Denisse López-B, Eulàlia Hernández
WHAT ARE WE TALKING ABOUT WHEN WE TALK ABOUT E-LEARNING?

Conceptual framework of e-learning

The project's research team maintains that precise identification of the conceptual framework of e-learning will contribute to advancing the discipline from an educational perspective of research and innovation.

OBJECTIVE:

1. Defining the concept of e-learning resulting from the consensus of the scientific community and the various practicing communities.

RESULTS OBTAINED:

2. Drafting of the final report of the project.
3. Dissemination at international congresses and in scientific magazines.

Blog of the project:

http://elearn.uoc.edu

EMERGING TECHNOLOGIES IN LATIN-AMERICAN UNIVERSITIES

2010 Horizon Report: Iberoamerican Edition

The report identifies and analyses the six technologies with the greatest potential for transformation of higher education in Latin America with horizons of 1, 3 and 5 years, along with the future challenges and trends that will have to be faced. This is a joint initiative of the UOC and the New Media Consortium (NMC).

OBJECTIVES:

2. Reflect on the potential of the emerging technologies for improving higher education in Latin America.
3. Create a network of experts that will give continuity to the recommendations and lines of action put forward in the report.

INTERACTIVE FORUM FOR COLLABORATIVE LEARNING
eKNOWLEDGE

The project proposes to design and develop a forum tool for the UOC Campus that will incorporate resources for managing information and communication.

OBJECTIVE:

1. Improve collaborative learning in virtual discussion spaces by means of an interactive online forum tool.

RESULTS OBTAINED:

1. Design, development and implementation of the beta version of eKnowledge on the UOC Campus.
2. Performance of the first pilot test during the first semester of the 2010/11 academic year, with the participation of almost 200 users.
3. Evaluation of the tool by way of user surveys and tests.

TOOL FOR THE INTEGRATION OF CONTENTS AND COMMUNICATION

UOCLET

The project seeks to develop a web annotation tool integrated into online material and accessible from the virtual classroom. The purpose of this tool is to enable private and public annotations to be made and shared with the other students in the classroom.

OBJECTIVE:

1. Develop a tool that will make it possible to work on a specific content, within the study material, by means of the interaction of students and consultants.

RESULTS OBTAINED:

1. Annotation tool integrated into the study material of the subject “Introduction to Mathematics for Engineering” of the UOC course in Information Technology, Engineering and Telecommunications.
RESEARCH AND INNOVATION

THE CENTER BENEFITS FROM THE WORK OF INDIVIDUAL MEMBERS AND RESEARCH AND INNOVATION GROUPS

10 RESEARCH AND INNOVATION GROUPS

Digital Literacy.
ICT skills in higher education.

EdOnline. Educational Supports to learn in Online environments.
Processes of creating knowledge in virtual learning environments.
www.edon.wordpress.com

EduL@b. Research group into education and ICTs.
Application of new teaching and learning methodologies by means of ICTs.
http://edulab.uoc.edu/

EDUS. Distance education in universities and schools.
Building knowledge in virtual teaching and learning contexts by contributing to the social and cognitive facets of educational psychology.
http://in3.uoc.edu/webs/grups_de_recerca/edus/

eHealthLab. UOC telemedicine laboratory.
Development of a 2.0 virtual platform to access different telemedicine applications.
http://www.laboratoriodeTelemedicina.com

EMA-UOC. Environments and Materials for Learning.
Analysis and design of digital learning environments.

ITOL. Interactive Tools for Online Learning environments.
Design of spaces, tools and resources to facilitate the students’ learning process in virtual environments in the university sphere.
http://itol.uoc.edu

LabTN. New Tourism Laboratory.
Simulations and technological tools for learning in tourism.

MUSEIA. Heritage, Museology, Museography and ICTs.
Online educational resources on cultural heritage and museology.
http://www.museia.cat

REM. Research in Educational Management.
Models of online tutorial activity in higher education.
37 RESEARCH AND INNOVATION PROJECTS

**Digital Literacy** Group

**Lead researcher:** Montse Guitert (mguitet@uoc.edu)

- ICT skills in the EHES. Teaching resources, tools and strategies
- Guides to web 2.0 tools in Mediawiki
- Web 2.0 workgroup space on the UOC Campus
- Collaborative online edition of videos

**EdOnline** Group

**Lead researcher:** Teresa Guasch (tguaschp@uoc.edu)

- E-feedback in collaborative writing processes: development of teaching and learning skills in virtual environments

**Edul@b** Group

**Lead researcher:** Montse Guitert (mguitet@uoc.edu)

- The policies of “one computer per child” in Spain. Teachers’ visions and practices in response to the School 2.0 programme. National Plan
- Evaluation of university students’ skills in the face of the challenge of the EHES (CICIYT)
- Policies and practices regarding ICTs in compulsory education: implementations for teaching and improvement (CICIYT)
- Identification, development and evaluation of teaching skills in the application of training plans addressed to university teachers (Studies and Analysis)
- Skills for online teaching: evaluation of the range of training options available for university teachers within the framework of the EHES (Studies and Analysis)
- Digital Learners in Higher Education (IDF/SSHRC Canada)
- CONEDE. Content Creation Excellence through Dialogue in Education (DE-ERASMUS-EMHE)
- The training evaluation of skills by means of blogs (REDICE)

**EDUS** Group

**Lead researcher:** Elena Barberà (ebarbera@uoc.edu)

- Renovation of the State e-Portfolio Network. e-Transfoli Project (AACC)
- e-transfoli. Assessment of transversal skills Training plan on the e-transfoli tool for UOC teachers
- m-transfoli: e-transfoli for mobile devices
- Competent - Manager by Skills/ePortafoli
- edit@ 2.0. System for the interoperability of multiplatform contents
- IE-TIC. Integration of ICTs into schools

**eHealthLab** Group

**Lead researcher:** Francesc Saigi (fsaigi@uoc.edu)

- Telemedicine Laboratory 2.0
- XIT-LabTM Network
- Nutrition and health laboratory (teaching innovation project in the UOC Master’s course in Nutrition and Health)

**EMA-UOC** Group

**Lead researcher:** Begoña Gros (bgros@uoc.edu)

- Automatic evaluation of mathematical contents in a Moodle classroom. Teaching Innovation Project, Aplica Programme of the UOC Open Innovation Office
- Uses of ICTs among university students, the academic and social perspective of mediated learning processes. R&D Project, Ministry of Education
- Analysis of didactic ICT integration in the Swedish educational context from a Learning Design Sequences (LDS) model perspective: case study in schools with advanced integration of technology. Ministry of Education
- CONNEXT (Connected Communities for Future Learning Practices). Lifelong Learning Programme
- EUAMO Integration of various technological tools and communication spaces in a single online learning environment for mathematics and statistics. Aplica Programme of the UOC Open Innovation Office

**ITOL** Group

**Lead researcher:** Eugènia Santamaria (esantamaria@uoc.edu)

- Autolearning in IT training by means of ICTs. MQD
- Didactic design in the area of digital sound processing in the Graduate courses in Multimedia and Telecommunications Technologies
- Analysis algorithms in MATLAB

**LabTN** Group

**Lead researcher:** Joan Miquel Gomis (jgomisl@uoc.edu)

- GIS for teaching in Tourism
- Simulation software for tourism intermediation
- Google Online Marketing Challenge
- Integration of digital communication tools 2.0 for management of collaborative knowledge of Google in the Digital Tourism Communication 2.0 course
**MUSEIA Group**

**Lead researcher:** Glòria Munilla (gmunilla@uoc.edu)

- 3C4Learning: Creativity, community, children
- International collaboration network on scientific museology

**REM Group**

**Lead researcher:** M. Jesús Martínez (mmartinezarg@uoc.edu)

- Alternative models of organisation of online tutorial activity in higher education

**IMPULSE FOR RESEARCH AND INNOVATION**

**eLC Research Fellows Program**

With the aim of favoring research and benefiting from expert knowledge, the Center incorporates researchers of recognized prestige in the field of e-learning.

**Dr. Lalita Rajasingham**

Victoria University of Wellington, New Zealand

**Line of work:** Teaching and learning processes in e-learning.

**Research project:** Factors leading to successful e-learning in the Universitat Oberta de Catalunya.

**Dr. Jakko Van der Pol**

Universiteit Utrecht, Netherlands

**Line of work:** Teaching and learning processes in e-learning.

**Research project:** Three forms of grounding in online collaborative learning: Investigating the optimal collaborative load.

**Dr. Oscar Tomico**

Technische Universiteit, Eindhoven, Netherlands

**Line of work:** Technological resources for learning.

**Research project:** Situated bookmarking: a case-study towards the re-contextualization of e-learning in the physical and social domain.

**eLC Visiting Professors**

The eLC receives the advice of visiting professors, experts in the centre’s lines of work.

**Dr. Paul Kirschner**

Open Universiteit, Netherlands

**Personalized advice in dissemination of research in e-learning and publications.**

**Dr. Ileana de la Teja**

LICEF, Research Center, Télé-université, Canada

**Consultancy to the direction of the UOC Master’s course in Education and ICTs (e-learning) in design by skills.**

**Investigators in research periods**

**Ingrid Noguera**

Doctorate student, Universitat de Barcelona

**Thesis project:** Indicators for teachers to design learning tasks for computer-assisted collaborative production of knowledge

**Duration of the stay:** 9 months

**Rebeca Román**

Professor of the Universidad Autónoma de Chiapas, Mexico.

Doctorate student, Universidad de Costa Rica

**Thesis project:** Skills in digital literacy training developed by university students by means of the use of the Information and Communication Technologies

**Duration of the stay:** 3 weeks

**Chrysi Rapanta**

Doctorate student, Università della Svizzera Italiana, Switzerland

**Thesis project:** Communication processes in e-learning design teams: a multiple case-study

**Duration of the stay:** 5 months

**Héctor Rodríguez**

Professor of the Universidad de Santiago de Compostela and doctorate student

**Thesis project:** Good teaching practices in the university: elicitation and representation of expert knowledge in the use of ICTs as an innovative teaching resource

**Duration of the stay:** 2 months

**100% HAVE EVALUATED THEIR RESEARCH PERIOD AS POSITIVE OR VERY POSITIVE.**

“THE MOST INTERESTING THING WAS BEING ABLE TO TAKE PART IN TRAINING SESSIONS AND JOIN THE eLC COMMUNITY.”

Ingrid Noguera

“IT’S BEEN A VERY ENRICHING EXPERIENCE, IN BOTH THE PROFESSIONAL AND PERSONAL SPHERES. I DIDN’T EXPECT TO FIND A UNIVERSITY THAT, WITH ITS VIRTUES AND DEFECTS WOULD BE SO MUCH IN THE FOREFRONT OF INNOVATION AND PEDAGOGIC RENOVATION IN VIRTUAL EDUCATION.”

Héctor Rodríguez

“I’VE HAD THE OPPORTUNITY TO DEVELOP MY RESEARCH WITH THE HELP OF A VERY COMPETENT TUTOR.”

Chrysi Rapanta
TRAINING IN E-LEARNING

THE CENTER MAKES POSSIBLE THE TRANSFER OF KNOWLEDGE BY MEANS OF ITS OWN TRAINING PROGRAM IN E-LEARNING

The Education and ICT programme is addressed to raising the skills of teachers and professionals of the university, school and business sectors in the use of the ICTs for educational and/or training purposes.

AIMS:
- To contribute to knowledge based on the function and appropriate use of e-learning.
- To provide professionals and organizations with an innovative and up-to-the-minute range of training courses.
- To provide the UOC’s faculty staff with continuous training in online teaching strategies.
- To advise educational institutions on the incorporation of ICTs as an element of methodological change.

THE RANGE OF TRAINING COURSES: INNOVATIVE, UP-TO-THE-MINUTE AND OF HIGH QUALITY

MASTER’S COURSE:
- University Master’s Course in Education and ICTs (e-learning)

POSTGRADUATE DIPLOMAS:
- Innovation and creative use of ICTs in education. UOC-Espiral
- Research in e-learning
- Expert in the use of ICTs in teaching
- Expert in design of programs, environments and materials with ICT support
- Expert in direction and management of training projects using ICTs

SPECIALIZATION COURSES:
- Resources for methodological innovation in the digital classroom
- Network-based teaching development
- Creativity, innovation and social networks in teaching
- Digital skills and collaborative learning
- Technician in management of training projects in the use of ICTs
- Technician in design of programs, environments and materials with ICT support
- Technician in online training and tutoring
- Virtual worlds applied to education
CUSTOMISED TRAINING AND CONSULTANCY PROGRAMME

Collaboration with institutions and organisations in training their professionals and implement e-learning models.

It provides a response to the needs of:

1. Training of groups of executives, teachers and managers
2. Evaluation of the elements of the institution's own educational practice (projects, courses, materials and training resources)
3. Strategic evaluation of implantation models for e-learning
4. Customised training and consultancy in projects for integrating e-learning in higher education institutions

PROJECTS

**Blended and online teaching. Universidad Mayor de San Andrés (UMSA), Bolivia.**

Training in teaching strategies in virtual teaching and learning environments for 56 professors (November 2009 - March 2010).

**Teaching in virtual teaching and learning environments. Universidad Pedagógica Nacional (UPN), Mexico.**

Training in the use of the ICTs in teaching for 27 professors belonging to the first pilot group (April - July 2010).

INTERNATIONAL CERTIFICATES

1. Joint Certificate: E-Learning Design and Development. UOC-UNM (University of New Mexico, USA)
2. European Certificate: E-learning course design and teaching

STUDENTS PER PROGRAM

- Total Students: 748
- 667 Masters Course
- 81 Postgraduate + Specialization Courses

STUDENTS PER COUNTRY

- USA: 1
- Mexico: 14
- Guatemala: 2
- Cuba: 2
- Spain: 283
- Colombia: 80
- Brazil: 1
- Argentina: 4
- Chile: 5
- Peru: 2
- Uruguay: 1
- Europe: 15
- Catalunya: 332

INTERNAL TRAINING PROGRAM:
FOR THE IMPROVEMENT OF TEACHING IN THE UOC

**Online Teaching Professional Development Programme** Addressed to the UOC’s faculty staff, it is oriented to the acquisition of both basic and advanced skills in teaching strategies in e-learning.

During 2010, work commenced to make this program recognised and accredited by the competent bodies as a postgraduate degree in this speciality.
### ACTIVITIES

#### CONFERENCES, WORKSHOPS AND RESEARCH SEMINARS

**THE CENTER GIVES CONTINUITY TO ITS PROGRAMMING**

During 2010, the Center has organized 16 activities oriented to generation of knowledge, dissemination of e-learning, fostering of research and creation of community, with the participation of more than 200 persons. The activities are addressed to both members of the Center and the educational community as a whole.

**INSTITUTIONAL VISITS**

With the goal of learning about its activities in research, innovation and training, representatives of 14 universities and higher education institutions have visited the Center. These contacts contribute to the creation of networks of experts in e-learning.

- **USA:**
  - West Virginia University
  - University of New Mexico

- **AFRICA:**
  - Kwame Nkrumah University of Science and Technology, Ghana

- **ISRAEL:**
  - Open University of Israel

- **AUSTRALIA:**
  - Swinburne University of Technology

- **LATIN AMERICA:**
  - Universidad Católica de Chile
  - Universidad de La Frontera, Chile
  - Universidad Santo Tomás, Chile
  - Universidad de Caldas, Colombia
  - Universidad de Cartagena, Colombia

- **PORTUGAL:**
  - Instituto Politécnico de Portalegre
  - Instituto Politécnico de Leiria
  - Instituto Politécnico de Beja
  - Instituto Politécnico de Santarém

- **TOTAL ACTIVITIES:**
  - Research Workshops: 3
  - Research Seminars on Open Educational Resources: 4
  - Research Seminars on Quality in E-Learning: 5
  - Conferences on Collaborative Online Learning and Design of E-Learning: 1
  - International Congress: 1
  - TOTAL ACTIVITIES: 16

**“Open Education Conference”, International Conference on Open Educational Resources, 2-4 November**

**College of Health Sciences of the Nkrumah University of Science and Technology, Ghana, Africa.**

**Polytechnic Institutes of Portugal: Portalegre, Leiria, Beja, Santarém.**

**Universidad de Santo Tomás, Chile.**

87% of the participants value positively their contents and applicability.

“The conferences, seminars and workshops respond to the interests and expectations of the participants to a degree of 90%.”

Luciana Caffesse

**“A system view of Distance Education”, by Dr. Michael G. Moore, Professor of Education at Penn State University, 7 June**

**“The workshops enable me to improve my research skills.”**

Luciana Caffesse
SUPPORT FOR MEMBERS’ RESEARCH AND ACTIVITIES

THE CENTER OFFERS SERVICES ORIENTED TO FAVORING RESEARCH AND DISSEMINATION OF PROJECTS AND ACTIVITIES

ECONOMIC SUPPORT FOR PROMOTION AND DISSEMINATION OF INNOVATION, RESEARCH AND TRAINING IN E-LEARNING

The Center has awarded a total of 35 grants in two annual calls, benefiting professors, researchers and management staff. The calls included 4 different types of grants:

- Mobility grants for attendance at congresses, seminars or scientific meetings
- Grants for dissemination of research results, innovation and training
- Grants for the creation of networks of experts
- Grants for the acquisition of scientific, technological or computer equipment

The Center has awarded a total of 35 grants in two annual calls, benefiting professors, researchers and management staff. 

SESSSIONS OF PERSONALIZED METHODOLOGICAL ADVICE FOR RESEARCH

Professor Paul Kirschner of the Open University of the Netherlands, and Visiting Professor of the eLC, has advised a total of 12 researchers on the identification of the best strategies for scientific dissemination of research results and innovation projects.

CHANNELS OF DISSEMINATION

eLComunica’t newsletter
A monthly publication that discusses the activities of the members of the center and informs them about the current state of the world of e-learning.

2.0 Spaces
During 2010, the center created various communication channels 2.0:

- www.twitter.com/eLC_UOC
- www.youtube.com/elearncenter
- www.flickr.com/elearncenter
- www.slideshare.com/elearncenter

In addition, work began on providing all the groups and members of the centre with their own spaces of exchange and collaborative work.
THE UNIVERSITAT OBERTA DE CATALUNYA

The UOC was founded in 1994 with the support of the autonomous government of Catalonia and with the mission of training people throughout their lives, giving them access to high-quality training in a dynamic, flexible and personalised manner. Its teaching and learning model and its organisational and management model are based on intensive use of the information and communications technologies.

It is a university that operates in a network and on the network. Modern, innovative and pioneering, it leads new methodological proposals in distance training with the aim of becoming a point of world reference in the non-presential university sphere.

THE UOC IN FIGURES

- More than **56,000 students** enrolled.
- **234 professors** and **2,804 collaborating teachers**.
- **1,907 graduate, postgraduate and master’s courses** and extension programmes.
- **3,741 virtual classrooms**.
- A community of over **200,000 students, graduates, professors, researchers and collaborators** in over **87 countries**.
- The UOC has signed over **600 agreements** with universities, institutions and companies around the world.
A CENTER OPEN TO THE WORLD

THE eLEARN CENTER IS OPEN TO THE INCORPORATION OF NEW MEMBERS AND PROJECTS AND COLLABORATION WITH COMPANIES.

Contact the eLC
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