Office of Learning Technologies
Vice-rectorate for Technology
Universitat Oberta de Catalunya
http://learningtechnologies.uoc.edu
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Who we are

Imma Tubella,
President of the UOC

“The world of the internet, where our University began 15 years ago and continues today, has changed the way we work, relate and live, and, obviously, the way we learn.

This new age of faster, more collaborative, more global and more universal access to knowledge and of free production of information, requires a university that is able to respond to the new needs of people, wherever they might be and whenever these needs may arise. This has been the focus for the Universitat Oberta de Catalunya (Open University of Catalonia, UOC) since its creation in 1994, with the support of the Catalan Government. This challenge – currently providing added-value services to more than 55,000 students in 50 different countries around the world – requires that the Office of Learning Technologies integrates the latest technological advances in its online learning environments: interoperable learning spaces, classrooms that are open 24/7, flexible and smart online community tools and services, personalization options and mobile learning solutions. Indeed, our aim is to meet the needs of our community of over 200,000 students, alumni, faculty, researchers and collaborators, which, more than ever, is increasingly demanding, has less time, is more technology savvy and has greater expectations about what technology can offer.

We are a learning community of people, passionate about promoting and facilitating learning, collaboration, cooperation, participation, excellence and leadership. And we believe in the benefits of technology-enhanced learning for reaching further, higher and better.”
UOC at a glance:

Distribution of students by age:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 21</td>
<td>2.000</td>
</tr>
<tr>
<td>22 to 25</td>
<td>4.000</td>
</tr>
<tr>
<td>26 to 29</td>
<td>6.000</td>
</tr>
<tr>
<td>30 to 34</td>
<td>8.000</td>
</tr>
<tr>
<td>35 to 39</td>
<td>10.000</td>
</tr>
<tr>
<td>40 and over</td>
<td>12.000</td>
</tr>
</tbody>
</table>

UOC Community:

- Staff: 491
- Counsellors: 2,804
- Students: 56,787
- Graduates: 27,781
- Professors: 234
What we stand for

Llorenç Valverde,
Vice-rector for Technology

“We have moved from an information era to a knowledge era. Advances in technology have spurred not only an increase in the rate of change but also in the immediacy of its impact. What used to take weeks, now takes minutes. This has enormous consequences for all organizations, but particularly the academic or educational sector. As students gain the means to direct their own learning experience, institutional hegemony over instruction may morph into something more populist and personal. What used to be institution-led is becoming student-led. Over the last decade, the field of e-learning has unabashedly adopted the tools and devices offered by digital technologies, making substantial inroads into the field of education in general. Currently, this field is mature enough to act as both a critical and open-minded breeding ground from which to generate a highly innovative learning model – one free from preconceptions- that serves as a flagship in terms of the quality of both academics and research. The UOC’s Office of Learning Technologies (OLT) has the mission to design, develop and deliver an open and high quality UOC online learning environment, enabling innovative, fruitful and engaging student-centered learning experiences.

When I’m asked about the pillars underlying the OLT, my answer is not straightforward. The OLT is not just an institutional body dedicated to assist a state-of-the-art educational and technological model with stable, high quality and innovative services; it’s much more. It is, in fact, about facilitating a new culture; it’s about openness, collaboration, participation, spreading knowledge freely and openly and using technology wisely. It’s about promoting and facilitating learning in a way that could not be done before, in a way that is even better than the systems currently in place, because these can now offer global participation, automatic content transformation, real-time collaboration, filters, relationships and all in a personalized and customized setting. It’s definitely a very stimulating challenge that we face with determination, passion and enthusiasm.”
Innovation in Learning.  
The OLT projects: four-leaf clovers.

Magí Almirall,  
Director of the Office of Learning Technologies

“Since 2005, the OLT has been working on the search for projects with four characteristics; these are not particularly unusual or special characteristics but it is quite difficult to find them all together. We want (a) projects in alignment with our university, (b) that are of value for our users, (c) in collaboration with other institutions and (d) that are funded by renowned organizations.

Any project that is created by an institution or business is designed to achieve certain corporate objectives. The mission, strategic plan and annual objectives of the UOC, therefore, are the basis for the conceptualization and prioritization of our projects. It is for this reason that accessibility, multi-device or personalization, some of the cornerstones of our university, form the foundation of our work.

However, we should not forget that a project has to serve its community and its users. It must fulfill a need and add value that had not previously existed. In the OLT we work thoroughly with methodologies based on UCD (User Centered Design) with this purpose in mind: to ensure that all the applications and initiatives that are developed directly benefit our users.

Without a doubt, in collaboration we find excellence. A project is not only undertaken internally. If a project is beneficial for our university, it follows that it must also be good for other universities, for other businesses. Without collaboration, technological developments are nothing more than solutions that are isolated from the world, isolated from that which is occurring in a very dynamic sphere, in society. For these reasons, the OLT invests much effort in participating in international associations, in standards and in establishing relations based on the trust that comes from cooperation and the exchange of knowledge.

In the final analysis, a project demonstrates that it is truly unique, innovative and creative if it attracts the interest and investment of capital from institutions dedicated to evaluating the technological advancement and originality of new initiatives. For us, then, obtaining funding goes far beyond simply increasing our budget. Much more important than the economic aspect is acknowledging approval of our projects that are funded by organizations such as the Spanish Ministry of Industry, the European Union or a number of American foundations. This, in short, demonstrates that the OLT responds to standards of quality and innovation.

Alignment with our university, user assistance, collaboration in network and outside funding; these four leaves of the clover are what make a project special. It isn’t a question of the leaves themselves but of the difficulty in gathering them together at the same time. On occasion, this comes about by coincidence; in other instances it is due to effort and perseverance, and in many other cases it doesn’t work out at all. In any event, the purpose of this Project Report 2010 is to show you some of our clovers with the hope of sharing, collaborating and generating new projects...if possible, with four leaves.”

OLT 2010 funding sources

- Regular UOC Budget - 66%
- External Funding - 32%
- Other UOC Funding - 2%
OLT People

Team:
The OLT team is comprised of a multidisciplinary team of around 45 people, including IT experts, psychologists, pedagogues, designers and economists, among others, led by Llorenç Valverde (Vice President for Technology, UOC) and Magí Almirall (Director, OLT).
Frutos, David García, Muriel Garreta, Marc Gener, Eva Patricia Gil, Alba Gimeno, Arantxa Hernández, Albert Juhé, Eva de Lera, Isaac Leiva, Eva Loste, Marta López, Toni Mangas, Irene Manresa, Josep Matamoros, Eva Miguel, José Mora, Joaquim Moré, Christian Moya,
OLT People

Carlos Ors, Sergio Ramos, Pablo Rebaque, Juan Antonio Recio, Octavi Ripollés, Josep Manuel Rivera, Daniel Roijals, Llorenç Sabaté, Juan Francisco Sánchez, Francesc Santanach, Alicia Valls, Luis Villarejo.
Extended Team...

...within the UOC. OLT works closely with the different departments from the UOC, as these accompany and guide, to a large extent, the everyday tasks of the OLT.

...within the World. OLT conceives as essential the establishment of a Global Network with a view to learn and excel through collaboration and participation. Among these are:

- www.mit.edu
- www.imsglobal.org
- www.uj.edu.pl/index.en.html
- www.utoronto.ca
- www.ericsson.com
- www.utoronto.ca

- www.nmc.org
- www.upc.edu
- www.eunis.org
- www.universia.es
- www.orange.es
- www.universia.es

- www.berkeley.edu
- www.tecsidel.es
- www.dcu.ie
- www.ocw.mit.edu
- www.ericsson.com
- www.orange.es
- www.cam.ac.uk
- www.ocw.mit.edu

OLT conceives as essential the establishment of a Global Network with a view to learn and excel through collaboration and participation. Among these are:
Projects:

eContents

eLearning Spaces

eMotions

i-Community

Learning Technologies
eContents

“We have understood that accessibility issues should contemplate all users since disabilities may arise in anyone depending on the context and the situation. This is the reason why we must provide versatile solutions when designing tools for educational materials.”

Josep Rivera
[Head of the Materials Lab]
jrivera@uoc.edu
Apertium

Description and Goals
Apertium is an open source translation platform that has been improved, together with the Prompsit company, to provide translation services adapted to UOC needs from Catalan to Spanish, English and French.

Accomplishments
• Subject areas have been entered in the Apertium automatic translator to improve the language cover to meet the UOC’s needs.
• Through collaboration with the Multilingualism Chair, the necessary communication gateways between the campus and the translator have been developed and the suitable campus interfaces have been enabled to offer translation in messaging.
• In 2010, the Apertium translation service was opened in the UOC community and in the whole world community.

As applied to the UOC:
The Apertium widget can be installed from the homepage of the UOC online campus, and very shortly this tool will also be integrated into the classrooms.

End User:
UOC Community

Tools and Technology Used:
PHP.

More information:

End User:
UOC Community

Tools and Technology Used:
PHP.

More information:

Antoni Oliver González
Online instructor, Arts and Humanities Department

“Apertium offers easy access to the automatic translation system for all members of the university community.”
Multimedia Language Materials

Description and Goals
This project consists of a progressive replacement plan of the current language exercises towards a new generation of multimedia exercises that meet the needs of lecturer, tutor and student in the sphere of usability, accessibility and functionality. The main aim of this project is to integrate an open multimedia exercise platform with open-source and accessible code that serves for all languages, including Chinese and Japanese.

Accomplishments
- Agreement has been reached between lecturers for the integration of a teaching team that, together with the educational technology team, is responsible for producing multimedia materials for language practice.
- “Self-assessment exercises for learning Chinese” have been developed, which is an interactive web material that includes a series of exercises aimed at improving oral and written skills, grammar, writing and phonetics in Chinese. As well as on a PC, the exercises can be done on an iPad. Similar materials will shortly be developed for other languages, such as Japanese.

As applied to the UOC:
This new generation of exercises affords UOC language students the chance to make more of their time while practising the Chinese language skills of the study language.
Project Field: Multiformat Materials

Contact:
Laura Castillo,
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(Student Information Services)
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(Organisation and Applications)
Josep Rivera,
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Participants/Developers:
Jordi Amorós, Alejo Buxeres,
Laura Castillo
(Student Information Service),
Tona Monjo, Antonia Pérez
(Organisation and Applications),
Josep Rivera

UOC Departments involved:
Educational Technology,
Organisation and Applications,
Student Information Services

Partners involved:
Xperience

Status:
Launched

Duration:
10 months

Funding Sources:
Regular UOC Budget

End User:
Students, teachers and on-line instructors

Tools and Technology Used:
J2EE, Struts, Oracle, Web Services, Javascript / AJAX, CSS

My Own Materials is a virtual campus application aimed at offering students quick access to the more up-to-date version of the course materials of all the courses they have studied at the UOC in the original language in which they studied them, in a range of formats, and irrespective of whether those subjects are still offered or not.

Accomplishments

• Complete redesign of the My Own Materials application adapting to the new campus design.
• Implementation of new requirements, which include a better design and the development of a widget that students can add to their homepage,
• A functional first version has been published and disseminated to the whole of the student community. Similarly, a user test has been conducted with this version and with a future version, which incorporates the materials in all the languages available.
• Access to the application is not just through the Secretary’s Office but can be viewed from a widget on the homepage and from the application by iPad.
• The My Materials application has also been opened for Postgraduate students.

As applied to the UOC:

A new application has been developed with more modern technologies and an adapted design that helps the student search for the materials that they have been using throughout their entire time at the UOC.

Laura Castillo López
Student Information Services

“This application turns out very helpful for our students since allows access at any time to the most current version of learning resources.”
Opencast Matterhorn

Description and Goals
Matterhorn is an open source project working within the Opencast Community to develop an end-to-end, open source platform that supports the scheduling, capture, managing, encoding and delivery of educational audio and video content. The UOC embraced the project leadership within the user experience design.

Accomplishments
- The application’s video player interface has been developed, which can be viewed after version 1.0 of it.

As applied to the UOC:
The knowledge acquired in this project has been applied in the development of UOC multimedia tools.

End User:
Students

Tools and Technology Used:
Balsamiq Mockups, Morae

More information:

Project’s video:
Plagiarism

Description and Goals
Plagiarism is a web service that allows users to know immediately if the activities and work submitted by the students are original or if they have been copied from other classmates or from other internet sources.

Accomplishments
- An algorithm has been found to calculate the similarity of documents.
- An analysis has been conducted of the products on the market and the possible solutions that may be adapted to the UOC have been assessed.

As applied to the UOC:
A web service has been developed to identify non-original work that is directly connected to the RAC, the UOC environment that both lecturers and tutors use to collect the students’ tasks.

End User:
Teachers and on-line instructors

Tools and Technology Used:
RAC, Jboss 4.0.5, Oracle

More information:
UOCLet

Description and Goals

UOCLet is an electronic annotation tool that enables students and teachers to make annotations on contents. Indeed UOCLet allows users to (a) underline and make notes as digital posts on an html in addition to a word document, (b) the underlying text as well as the comments made can be both shared with other people, so that there is no longer any need to send emails when discussing a document in a group, (c) collect all the comments and underlined texts and generate a summary of links of websites followed by their corresponding annotations.

Accomplishments

• The design and development of a first UOCLet prototype has been completed, which considers (a) on-line annotations, (b) addition of post-its for each annotation, (c) summary of annotations and comments and identification of each comment and post-it with the user who created it.
• A pilot experience has been successfully launched with the students and lecturers on the Initiation to Mathematics course.

As applied to the UOC:

The students and lecturers on the Initiation to Mathematics courses in Catalan and Spanish have been able to enjoy this application successfully as part of a pilot experience.
Up to Us

Description and Goals

Up to Us is a project labelled as a CELTIC project whose main aim is to provide an architectural framework for an advanced IPTV system with a view to improving the existing system, providing bespoke services in which the content is adapted to the user’s exact preferences and their different contexts.

Up to Us has an international consortium in which companies and institutions from France, Norway, Poland, Austria and Spain take part. We should stress that in all the tasks of the various work packages, a company in the Spanish consortium always takes part, which will enable us to gain knowledge of the whole project and be up to speed with the advances that are made in it.

Accomplishments

• User study based on a Focus Group and survey analysis to determine user habits.

As applied to the UOC:

Creation of collaboration ties with organisations that could be relevant to the UOC.
eLearning Spaces

“We are focused on providing the best teaching and learning experience to UOC lecturers and students. In order to obtain such a goal, we work closely with end-users to promote, implement and evolve the learning tools and resources.”

Muriel Garreta
[Head of the Labs for Learning]
murielgd@uoc.edu
**Course Mobile Updates**

**Description and Goals**

This project aims to offer an easy way to check course updates through mobile devices. By using the web browser of any mobile device and through an RSS format, lecturers, on-line instructors and students can follow their course updates anywhere with this tool. The main goal of Course Mobile Updates consists of bringing the UOC online learning environment even closer to the UOC community by developing a tool that provides choice to students and on-line instructors with regards to when and where to log in.

**Accomplishments**

- This project followed a user-centred design process and was user tested with 14 students before starting its development.
- So far, the Course Mobile Updates tool allows users to check their mail, forum posts, boards and class discussions from their mobile.
- The updates can be accessed through the UOC homepage and is available to all users. Its usage is expected to grow with the increase of smartphones and an easier access to the update spaces.

**As applied to the UOC:**

The Course Mobile Updates have been open to all users since September 2010. It is an ongoing project that will be enhanced thanks to the user feedback and by the inclusion of new updates.

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**End User:**
Students, teachers and on-line instructors

**Tools and Technology Used:**
Mobile devices, RSS

**More information:**

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“Eva Miguel Guerrero
Student at the UOC

“It’s great to receive your subject grades (by cell phone) before they appear in your student records.”
eFeedback Pilot Programme

Description and Goals
The project’s goal is to evaluate other forms of feedback in order to enhance the students’ learning experience. The project has implemented 3 new types of feedback to complement text: audio, video and screen captures.

Accomplishments
- For the pilot, the LANGblog functionalities were added to the continuous assessment record.
- The pilot allowed tutors to easily record and publish video and audio as well as to upload a previously recorded file.
- The experience run in 5 courses has been considered very positive by all actors involved.

As applied to the UOC:
The project was promoted by a group of lecturers from the Economics and Business Studies Department and a first pilot was run with 5 courses.

End User:
Tutors and students

Tools and Technology Used:
New Continuous Assessment Record with LANGblog
e-Transfoli

Description and Goals
E-transfoli is an assessment tool based on skills. It serves as a student virtual space where the state of the student learning process is reflected in terms of achieved skills and personal CVs.

Accomplishments
- The e-transfoli provides a way of easily exchanging and assessing skills between tutors and students. Through an educationally designed process, students present evidence of their knowledge and expertise and tutors assess them.
- Students can decide whether they want to openly publish their e-transfoli. The tool offers an RSS to be exported to another tool and also has an open section.
- The tool was tested with a small pilot at a graduate programme level.

As applied to the UOC:
Implementation of an e-learning tool that provides the UOC with an assessment tool that embraces the Bologna Process.

End User:
Students, teachers and on-line instructors

Tools and Technology Used:
JAVA 1.5, Jboss, Oracle

More information:

Project’s video:
Kronos

Description and Goals
Kronos aims to record and limit the time students spend doing a continuous assessment activity. For some activities, such as creativity tasks, the time factor is important in placing students in a real-world experience. In addition, lecturers and tutors value this time information as it provides more feedback on the activity that they designed.

Accomplishments
• Kronos is a web application that controls the time elapsed between the download of the activity instructions and the upload of the students’ activity.
• The application was used in four classrooms of a course for the last activity of the semester.
• The feedback provided by the lecturer, tutors and students is very positive.

As applied to the UOC:
Integrated into the virtual classroom and the continuous assessment record, Kronos can be activated for those activities that lectures want to evaluate in terms of time.

“...My students need to solve the problem of a formulation with a time limit: a race against the clock, like life itself.”

Silvia Sivera
Online instructor, Information Sciences and Communication Department
Microblogging

Description and Goals

The goal of the microblogging project in the classroom environment is to explore and evaluate the possibilities of this short communication form in an e-learning experience. For the pilot, an open source application (StatusNet) was integrated into the virtual classroom, also providing easy access from mobile devices.

Accomplishments

- The first pilot was run in 4 courses in different departments and for different purposes.
- The classroom homepage was redesigned to show the microblogging information in order to facilitate communication among its members.
- Overall, the experience has been very positive and the possibilities of the tool will be further explored.

As applied to the UOC:

The lecturers participating in the project have introduced and assessed the tool in one of their courses.
Scenario-based persona

Description and Goals

User analysis is a key aspect of user-centred design. Knowing who your users are provides designers and developers with a clear idea of their needs, wants and characteristics and is, therefore, central in order to design products and services that suit them. This project entailed gaining a better insight into the average UOC student by finding out two personas (and their context) that represent the majority of the UOC community.

Accomplishments

• A great number of studies were carried out to find out more about UOC students and identify their behavioural patterns. These studies concluded that there mainly are two types of persona that represent UOC students: (1) Martina, a forty-year-old student, married with two children, who works as a journalist for a local paper. Martina studies at the UOC since she enjoys learning; (b) Jordi, a thirty-two-year-old student who lives with his girlfriend and works as a technology expert at a small consultancy firm. Jordi studies at the UOC in order to improve his career prospects.

• Several studies and test uses were also performed to find out the best way to effectively present Martina and Jordi’s profiles to UOC staff. The results showed that recreating scenes from their daily lives was a far more revealing way (and a less likely manner to lead people to make false judgments based on prejudices) than an image or a face.

• A deliverable cube with Martina and Jordi’s everyday life scenarios was also designed. The underlying idea is that each member of the UOC staff builds his or her own cube as the process of finding out about Martina and Jordi.

As applied to the UOC:

To let all the UOC staff know the profiles of the two main personas of the UOC with the aim that they are always taken into account.
Project Field:
Foreign language e-Learning tool

Contact:
Muriel Garreta,
murielgd@uoc.edu

Participants/Developers:
Christine Appel, Israel Conejero,
Marta Enrech,
Francesc Santanach

UOC Departments involved:
Language School

Partners involved:
Dublin City University (Ireland),
Jagiellonian University in
Krakow (Poland), Rijksuniversiteit
Groningen (Netherlands),
University of Jyväskylä (Finland)

Status:
Starts in January 2011

Funding Sources:
The European Lifelong Learning
Programme ( LLP )

Total Amount Awarded
164,490 €

Description and Goals
Speaking is one of the hardest skills to put into practice when learning a foreign
language. Formal second or foreign language acquisition settings do not provide
enough room for everyone in the classroom to practise the language. SpeakApps is
an on-line platform that aims to fill this and other gaps by gathering in one site ICT-
based applications and pedagogies to practice oral skills on-line.

Accomplishments
• Development of a competitive project highly valued by the grant-awarding Euro-
pean body, The European Lifelong Learning Programme ( LLP ), in which the UOC
acts as the leading partner.
• The 24-month project starts in January 2011. The proposal was written in 2010
and was based on many years of experience in foreign language e-teaching and
e-learning.

As applied to the UOC:
The project is based on three tools designed and developed at the UOC: LANGblog,
Tandem and Videoconference. SpeakApps will allow for the enhancement, piloting
and generalisation of the tools and activities for more languages and users.
eMotions

“We want our students to join us at UOC because we offer a rich and engaging environment through which their learning process is an exciting and motivating experience.”

Eva de Lera
(Head of the Joy of Learning Lab)
edelera@uoc.edu
Affective Audioplayer

Description and Goals
Affective Audioplayer is a simple player like Windows Media or Winamp that contains a set of tracks uploaded by UOC and selected because of its potential to promote concentration and positive affective states. Students will be able to evaluate songs in terms of ‘concentration’ and ‘positivity’ while they will also be able to indicate the kind of task they were doing when listening to the song. Finally, students will also be able to select songs from a database that will contain the assessment of these songs by other students.

Accomplishments
• The design of the Affective Audioplayer has been completed.
• The requirements for favouring interactivity between students surrounding the music player have been specified.

As applied to the UOC:
Once the project has been completed, the widget will be added to the UOC on-line campus homepage, MyUOC.
**Joy of Learning**

**Description and Goals**

The Joy of Learning project is a framework concerned with the engagement and satisfaction of virtual campus users throughout their online learning experience at UOC. Its main objective is to incorporate students’ needs and expectations into the design of the virtual campus. The Joy of Learning primarily (a) helps identify the right tools and initiatives that will promote engagement into the learning process, allowing students to achieve both their academic/credit objectives, as well as their study-for-pleasure objectives, and (b) helps identify the way in which the learning environment may need to interact with their personal and social preferences and landscape to facilitate integration of the learning process into students’ daily lives.

**Accomplishments**

During 2010 the activity of Joy of Learning was concentrated in the following actions or subprojects:

- Conceptualization and design of the project ‘QuizLearn’, where students help build study guides and quizzes to help themselves and others achieve their learning objectives.
- Conceptualization and design of the project ‘Affective player’, where sounds are used to promote a mood that facilitates the learning process while online.
- Creation of an International Program for remote collaboration of foreign students to integrate diversity into the projects.
- Dissemination of the activity of Joy of Learning in several international conferences.

**As applied to the UOC:**

Since the first two subprojects are still in the design phase, the UOC has not directly benefited from them yet. Potentially, some of the benefits could be the adoption of a tool that promotes a powerful learning process through the participation of learners in the creation of activities; or the use of a player where students can select tracks and lists of tracks that have been created in order to improve the learning process through the creation of appropriate moods.

Lastly, the first experience with the International Program for Remote Collaboration yielded a set of conclusions that will be applicable to the next program, as well as other actions that involve contracting and working with international people.
SimAULA

Description and Goals

The SimAula project consists of the creation of a learning environment based on virtual worlds where Bachelor of Education students and practising teachers can put their teaching skills into practice just as they do in person during the practice period known as the ‘Practicum’. The environment will simulate student behaviour realistically in various teaching scenarios, where, through their own avatar, teachers will have the chance to practise their educational strategies in order to achieve an appropriate climate in the classroom and favour learning. The great advantage of offering a virtual practicum based on a simulation is that it provides teaching practice in a great variety of educational situations and, as it is a virtual world, it removes the risks of taking wrong educational decisions in a real setting. The specific aims of this project cover (a) identifying requirements, designing scenarios and storyboards and developing the virtual world interface, (b) carrying out a series of pilot trials that validate the effectiveness of the virtual world created, and (c) disseminating the project.

Accomplishments

- The project began in November 2010 and therefore the accomplishments boil down to the preparation of the project and the initial meetings needed to start it up.

As applied to the UOC:

Improvement of the UOC virtual campus with the introduction of 2.0 tools.

End User:
Educators, Bachelor of Education students

Tools and Technology Used:
Under discussion
i-Community

“We are committed to designing and developing applications to create a sense of community around the UOC Learning Environment”

E. Gil and X. Aracil

(Heads of the i-Community)
egilrod@uoc.edu, xaracil@uoc.edu
Description and Goals

On being awarded a grant by UNIDISCAT, the OLT set up an Accessibility Lab that is perfectly adapted for visually-impaired people. The main goals are to (a) study the usability of the UOC online learning environment for people with visual disabilities, (b) test accessible technologies in vivo, (c) gain a better insight into the needs of visually-impaired people, and, consequently, design and implement more efficiently.

Accomplishments

- The laboratory has been used to test access to the virtual campus on any day by a student with a visual impairment, and tests using the new homepage of the virtual campus have been conducted, which has led to specific recommendations being made regarding improvements to its usability for this group of people.
- The “Accessibility Recommendations Report” has been drafted on the basis of 95% of UOC students with an impairment, and it has been disseminated at the accessibility conference for UOC and external developers and at the CSUN 2011 conference.

As applied to the UOC:

Improvement of the UOC Virtual campus from the point of view of accessibility.
Description and Goals

The project’s goal is to create a gateway based on open source standards that allows interoperability between Content Management Systems and that, through a usable and accessible user interface, expands its functionalities and capabilities. edit@ permits text to be converted to different innovative formats and to be translated and annotated as well as working with SCORM packages. The tool is fully configurable and has a statistical system for greater control of its use.

Accomplishments

- edit@ is a tool and services bar that when added to your CMS allows you to:
  - Transform text into audio, Daisy (specially designed format for people with visual impairment) and epub and mobipocket (optimum formats for e-book and iPad). It also allows you to transform between text formats.
  - Look for text in an audio file
  - Manage SCORM materials and optimize them for Digital Interactive Television, mobile phones and PDA
  - Add notes to CMS pages
  - Automatic translation of texts and documents
- The bar is fully administrable and has a statistical system to better control its usage.
- In addition to the bar, a Daisy reader for mobile has been developed, also in open source, to read your Daisy format content from a Symbian mobile.

As applied to the UOC:

Some parts of edit@ are used in the UOC to transform didactic materials into innovative formats like epub, mobipocket or Daisy.
EduWai

Description and Goals

EduWai entails the development of learning environments accessible for disabled people. The role of the OLT in EDUWAI is to collect requirements from users with disabilities while they interact with virtual environments. Moreover, the OLT is responsible for monitoring accessibility and usability throughout the project.

Accomplishments

• Collection of requirements from users with intellectual disabilities. Fundación Prodis was visited in order to carry out context observations of how users with intellectual disabilities complete a training program for incorporation into the job market, and also to undertake a focus group with educators and employment mediators.

• Collection of requirements from users with visual disabilities. Interviews and context observations were carried out with 12 UOC students with visual disabilities in their homes; also an accessibility test was carried out for the new beta version of the UOC virtual learning environment.

• Report on requirements of both profiles was elaborated, in which the requirements and the difficulties encountered were described, and also in which a series of design recommendations are proposed.

• Development of a prototype of the virtual platform for helping users with intellectual disabilities to incorporate into the job market.

As applied to the UOC:

The collection of requirements from UOC students with visual disabilities allows us to find out, on the one hand, the main difficulties that these students face in undertaking online learning. With these difficulties, we have proposed a series of recommendations designed to enhance this interaction. On the other hand, it has been possible to elaborate a series of usability and accessibility recommendations for the new beta version of the UOC virtual learning environment as a result of the accessibility test conducted with UOC students; thus, the user experience of students with visual disabilities has been improved.
iUOC: Enhanced Mobile Learning at the UOC

Description and Goals
iUOC: Enhanced Mobile Learning at the UOC is an initiative that aims to take the UOC’s virtual campus, My UOC, to new, more current, interactive and portable scenarios, such as the iPad. This pioneering initiative has been undertaken in collaboration with mobile phone operator Orange, and basically aspires to enrich the learning experience by (a) making use of the versatility and portability of the new mobile devices, (b) using RSS technology to provide a connection to the communication spaces of students and lecturers in the virtual campus, and (c) facilitating access to materials adapted for these environments and platforms.

Accomplishments
• In collaboration with the Orange company, an iPad native application was developed that users can download directly from their device for connecting to the UOC’s Virtual Campus in an optimum manner.
• A pilot programme was carried out in which iPads with 3G connections were provided to 45 students and a number of lecturers for accessing the virtual campus and the UOC’s educational materials (adapted for the iPad) for a semester. The results of the iUOC pilot programme will be analysed shortly.

As applied to the UOC:
If the results of the pilot programme are favourable, the next aim will be to provide the 85,000 members of the UOC community (students, graduates, staff and lecturers) with the iUOC native iPad application, as well as providing tutors and lecturers with a user manual on other educational applications that have arisen out of this project.

"With this project, globalization and internationalization join hands for the sole purpose of facilitating learning to the fullest extent possible."

End User:
UOC Community

Tools and Technology Used:
iPad, RSS Technology.

More information:

Project’s video:

Demo:
Description and Goals

The UOC is developing a geolocation tool for UOC students to be able to know the location and other information related to other students. With this tool, students always decide whether they want to share information or not and when they want to share it. This tool also displays other points of interest, such as UOC offices, support centres or libraries. The aim of this project is that (a) by logging in on their computers or mobile devices, students access a Google map which pinpoints where they and other students are, UOC-related places, and other places of interest to students, and generally (b) to foster contact and communication between students “outside” the classroom, making use of the great potential that social networks and shared information has for e-learning.

Accomplishments

- User tests have been conducted and the conclusions from the study show that Geolocation 4 Learning is a very useful tool for creating a feeling of community, being able to meet up with other geographically near UOC students and alumni and having speedy information about the location of UOC sites.
- A pilot programme has been developed and planned and will run in March 2011 with 2,000 UOC users.

As applied to the UOC:

Creating a far more interactive community among UOC students.
Mobile Homepage

Description and Goals

The aim of this project is to develop a version of the Campus homepage that is optimised for mobile devices. The mobile version will maintain all the information available in the standard version but adapt it to the specific needs of these devices.

Accomplishments

• An initial version has been developed that has been assessed with user tests. The conclusions that have been reached show that, effectively, users are grateful for the quick access to campus notifications and value positively the degree of personalisation of the mobile homepage.

• A design recommendations report has been drafted, and these recommendations have already been implemented on the new mobile homepage.

As applied to the UOC:

It optimises access to the UOC virtual campus using mobile devices.

End User:
Students and teachers and online instructors

Tools and Technology Used:
Mobile devices

More information:
Mobile Homepage

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Students and teachers and online instructors

Tools and Technology Used:
Mobile devices

More information:
Mobile Homepage

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As applied to the UOC:

It optimises access to the UOC virtual campus using mobile devices.

End User:
Students and teachers and online instructors

Tools and Technology Used:
Mobile devices

More information:
Mobile Portal

**Description and Goals**

The growing use of mobiles by users when going online and consulting the internet necessitates the adaptation of the various pages comprising the UOC website to mobile devices. In this case, the UOC web portal does not at present have a version for mobile devices and it is therefore necessary to adapt the web portal to these devices with the aim of potential users – such as future students, journalists and researchers – being able to access the information available on the portal easily and intuitively. To bring about this mobile version of the portal, two tests will be run with users: the first using frameworks, and a subsequent one using a prototype mock-up.

**Accomplishments**

- Definition of the information architecture.
- Planning of the user test with the corresponding definition of the sample responsible for assessing the project (six potential students, two journalists and one researcher).
- Creation of the frameworks.

**As applied to the UOC:**

The whole of the UOC community will be able to access the mobile version of the UOC portal using a mobile.

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**End User:**

UOC community and, in general, anyone wanting to consult the UOC web portal using a mobile

**Tools and Technology Used:**

Mobile devices

“...a university can only be virtual if it allows its community to interact with it through content and devices suitable for all study and work contexts.”

Lluis Rius and Antonella Severo
UOC Internet Publishing team.
My Profile

Description and Goals
The My Profile space allows UOC students to share their information with the other UOC virtual campus users. The aim of this project is to introduce social networks in this personal space with the aim of promoting and facilitating interactivity between UOC students.

Accomplishments
- An initial version of the my profile space has been developed and a pilot trial has been scheduled for late 2011 to assess My Profile.

As applied to the UOC:
Improvement of the UOC virtual campus with the introduction of 2.0 tools.

End User:
UOC Community

Tools and Technology Used:
Facebook Api, Twitter and other social networks
What's Up?

Description and Goals

What’s Up? is a tool that builds community by sharing resources between states and different users of the campus, connecting teachers, researchers, students and staff, using a space of 140 characters. The project is based on a microblog tool that can be easily adapted to mobile devices, in addition to the website. Indeed, the project has a widget on the homepage of My UOC (the new online learning environment of the UOC), from which the user can easily update his or her status and share it with only one click with another social network such as Twitter or Facebook.

Accomplishments

- An initial version of What’s Up? was tested in a pilot group in 2010 and will be scheduled before May 2011 for the UOC staff.

As applied to the UOC:

The user can start using web 2.0 tools integrated into the Virtual Campus, improving their communication with the rest of the UOC community.
“Our aim is to define, design, and develop the educational environment for the future based on open source and interoperable technologies”.

Francesc Santanach
(Head of the Educational Technology Lab)
fsantanach@uoc.edu
Campus Project Services
(IMS Basic LTI + OKI OSIDs)

Description and Goals
Set of services that constitute an access API to an LMS. These services enable the easy integration of any kind of tool that is of use to learning into an LMS. These services are based on the IMS Basic LTI and OKI OSIDs specifications.

As supported LMSs we have Moodle, Sakai and the UOC campus. The principal aim of this project is to provide the UOC with a series of e-learning services that enable access to the information of the LMS and, at the same time, so that the tools used at the UOC can also be used on other education platforms such as Moodle and Sakai.

Accomplishments
• During the project, the following services have been implemented on the UOC campus: Identifier, Agent, Authentication, Authorization, Locale (Dictionary), Logging, Configuration and Messaging.
• All of this software and the access APIs to the LMS have been published in Java, PHP and webServices. This software is available at http://www.campusproject.org under GPL licence.

As applied to the UOC:
The UOC on-line campus is based on standards such as IMS Basic LTI and OKI OSIDs and this enables highly diverse applications such as blogs, wikis, tools from different Learning Management Systems (LMS) and internet services to be integrated into the UOC.
At the same time, it enables UOC tools to be used on other LMS, such as Moodle and Sakai.
e-Coaching

Description and Goals

e-Coaching is a teaching innovation project that seeks to design and develop a learning methodology in the field of training for coaching. The project is based on the introduction of temporal synchrony elements in the e-learning process.

Accomplishments

• First pilot trial run on the e-coaching course. The second starts this semester.

As applied to the UOC:

The tool is being used by students in the e-coaching subject.
LaboLang

Description and Goals
LaboLang acts as an automatic laboratory for practising and improving the pronunciation of a foreign language. Labolang, an adaptation from the LANGBlog project – a UOC tool for practising oral skills, with posts and replies on audio and video, with no program installation required – will allow students to compare their pronunciation with the teacher’s by using ASR AA audio comparison technology.

Accomplishments
• UOC 2010 prize for the best innovation project.
• Available for French, English, Spanish and Catalan.
• The redesign of the pronunciation results display screen has been approved.

As applied to the UOC:
French students at the UOC language school already use this tool, so aiding their learning.

Nathalie Bittoun
Professor of French, Arts and Humanities Department

“A synthesizer pronounces the written texts, it’s superb! In this way our students learn pronunciations that have only seen in writing.”
Learning Apps

Description and Goals

Today there is a wide array of tools for learning and teaching on the net and the number of Web 2.0 tools used to learning and teaching are growing. Wikis, blogs, Google Apps and video conferencing tools are good examples. Despite these resources, the problem is that there is a wide dispersion of them. Furthermore, it is not easy to find, choose and use the right tools. The Learning Apps project aims to reduce this dispersion by creating an internet store like the Apple Apps Store but focused on educational applications. In other words, a space where teachers and educational institutions can easily find these tools and build – with a single click – their own e-learning environment in the cloud (on the Amazon cloud computing infrastructure). Learning Apps will be a further step toward the technological model based on flexibility and interoperability between tools and e-learning platforms. This model has been promoted over the past 4 years by the Office of Learning Technology at the UOC and evolved thanks to projects such as the Open Source Campus, SUMA and Campus 5.0. The UOC is leading the technological development of the Learning Apps project, a project which will take 27 months and a budget of three million.

Accomplishments

• The project began at the end of 2010, so therefore the planning of the work and the tasks among the partners is being carried out.

• At the dissemination level, Learning Apps already has a logo, its website is being developed and it has been publicised in journals with a Spanish impact, such as “Cinco Días”.

As applied to the UOC:

The UOC is the technological leader of the Learning Apps project so the project will serve to foster improvements to the UOC on-line campus.

Tools and Technology Used:
IMS Basic LTI, DIKI OSIIDs, LMS (moodle, sakai and others), Social Tools (facebook, Elgg, mahara and others), tools such as blogs, wikis, videoconferencing, etc. and Amazon Cloud Computing services

End User:
e-learning Community

Pedro Artiga Calvo
Director of the information systems area of Tecsidel

“Google Apps, as a model, served as the inspiration for creating this project: an applications, contents and educational services “shop” available on internet for users and suppliers.”
Description and Goals

PRESENT@ is a blog that allows students’ activities to be uploaded and viewed on video. The aim of the project is to enrich this tool so that it allows the debate on the work to be channelled and so create a virtual “Sala de Graus”. The Present@ tool is based on the wordpress blog and offers functions to be able to post and share very heavy videos. It has been used for the virtual presentations submitted by students for the IT final degree projects (TFC).

Accomplishments

• Tool used in more than 50 final degree projects.

As applied to the UOC:

This tool enables UOC students to present final degree project virtually.

Project Field:
Video and screen recording tool

Contact:
Antoni Pérez, aperez@uoc.edu
(IT, Multimedia and Telecommunications Department)

Participants/Developers:
Jordi Conesa, Muriel Garreta, Christian Moya, Francesc Santanach, Alicia Valls

UOC Departments involved:
IT, Multimedia and Telecommunications Department

Status:
In progress (Pilot, 2nd round)

Duration:
6 months

Funding Sources:
Regular UOC Budget

End User:
Final degree project students.

Tools and Technology Used:
Wordpress, Video, Flash, ffmpeg, Camtasia and other “screen recorders”
Moodle Wrapper Tools

Description and Goals
The UOC online learning environment already has its own virtual classrooms. However, our office would also like to offer UOC students the possibility of using applications that belong to the Moodle Learning Management System. The Moodle Wrapper Tools project focuses on enriching the numbers of tools allowed to be used in a UOC Virtual Classroom by adding those from Moodle.

Accomplishments
- Possibility of using Moodle classrooms on the UOC campus.
- Possibility of using any Moodle tool on the UOC campus. For example, the Moodle Quiz and the Moodle forums can be used on the UOC campus.
- More than 20 Moodle classrooms in operation on the UOC campus.
- More than 50 Moodle Quizzes used in the first pilot trial using Moodle activities in the UOC classroom.

As applied to the UOC:
The UOC benefits from this project in shared subjects with other universities, in subjects that seek to try any of the many tools developed for the Moodle community and on doctorate or postgraduate courses that seek to apply a more constructivist learning model.
Collaborate

If you’re interested in collaborating on a specific project, please get in touch with the email contact shown in the corresponding project (see Projects section).

If, instead, you would like to establish a more general collaborative framework, feel free to contact Magi Almirall, director of the OLT, at malmirall@uoc.edu.

The OLT deeply believes in collaboration and knowledge exchange as essential steps toward building a powerful and versatile on-line learning interface and model. So do not hesitate any longer, contact us!

Contact

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