The Open University of Catalonia as a Virtual University

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INTRODUCTION

Electronic Web-based campus information systems and e-learning educational delivery became increasingly important for higher education practice in the late 20th and early 21st century (Bates, 2000; Cobarsí, 2005). These emergent information technologies brought about changes in the traditional face-to-face campus and paper-based communication and teaching (Brown & Duguid, 2000).

There are several trends in the introduction of information technology in universities that can be summarised into three main types (Duderstadt, 2000; Folkers, 2005). Firstly, most universities gradually adopted electronic campus information systems and e-learning to reinforce functionalities offered by their physical campus, with no intention of substituting the traditional campus but simply to strengthen their capabilities. Secondly, other institutions, the so-called first generation distance universities, had no physical campus from the very beginning, such as the institutions founded in the 1970s: the British Open University http://www3.open.ac.uk or Spain's Universidad Nacional de Educación a Distancia http://www.uned.es/portal/index.htm. Thus, they incorporated electronic media to complement their usual means of communication by post or periodical face-to-face tuition. Thirdly, the Universitat Oberta de Catalunya (Open University of Catalonia, hereinafter the OUC) is a quite different case: it was created from the very beginning (the academic year 1995-1996) as a wholly e-learning and Internet-based higher education institution, where a virtual campus with wide-ranging functionalities supports most of the day-to-day activities. As a result of these original premises, this university has some important organizational and information system features, which are summarised and discussed in the sections below, from the chronological perspective offered by its having been in operation for 10 years.

BACKGROUND

Recently, forces such as the growth of the Internet or the emergence of new student profiles challenge the traditionally slow-moving higher education institutions (Folkers, 2005). Online e-learning education is a clear indication of the changes taking place in universities. Its potential and impact are currently under study (Freitas & Oliver, 2005; Guri-Rosenblit, 2005; Kirkwood & Price, 2005). We define e-learning as: The application of electronic information technologies to education, whereby teaching contents and actions are delivered by electronic means.

The OUC, http://www.uoc.edu/web/eng/index.html, is an open distance higher education institution based wholly on the Internet and e-learning from its inception.

The OUC was created by the autonomous Catalan government as a private foundation under public control, dedicated to providing open distance higher education. The first academic year was 1995-1996. The man behind the project and the Rector from the start and until December 2005 was Dr. Gabriel Ferraté. The current Rector is Dr. Imma Tubella. Academic activity began with 200 students on two 3-year official degree courses; this has now risen to 36,000 students (studying on 45 courses, including 3- and 4-year official degrees, master's, and the PhD on the information and knowledge society). The OUC has become a world-renowned networked university. The institution has received awards, as an information technology educational application, for quality, innovation and social impact; for example, the World Information Technology and Services Alliance Award for the world's best digital opportunity 2000, the International Council of Distance Education Prize of Excellence to the best virtual and distance university 2001, and the European Foundation for Quality Management Gold Standard for European Quality 2005.

We define *academic networked environment* as: A set of contents and services available and distributed to

the university campus community in electronic format. The OUC's academic networked environment includes an open access portal, available to any Internet user, and shared local area network disk space (which is only available to full-time faculty and teaching staff), but most of the interactions take place on the so-called virtual campus, as is explained in the next section.

A VIRTUAL CAMPUS FOR A VIRTUAL UNIVERSITY: USERS AND FUNCTIONALITIES

The OUC's virtual campus is a restricted-access Web environment that supports work and interaction for all the different asynchronous and geographically scattered users who make up the university community.

Although there is a wide range of user profiles on the OUC's virtual campus, they can be broadly classified into three general categories corresponding to their roles in the university community:

- Full-time faculty and administration staff
- Part-time tutors and career advisors
- Students who meet the "non-traditional" student profile as is explained in Oblinger (2003) and Marzo, Pedraja, and Rivera, (2005); that is, most of them have job and family duties.

Full-time faculty take care of educational design, authoring and coordination of course materials, as well as selection and coordination of teaching collaborators. On the one hand, under the academic coordination of a full-time lecturer, teaching collaborator teams act as facilitators (tutors) of e-learning for a group of students on a subject course for a six-month period. Full-time faculty also teach some subjects directly on their own, thus occasionally playing the tutor role. Faculty is divided into departments ("studies"), which, in a wide sense, coincide with the knowledge areas: computing and telecommunications, economy and management, humanities, information and communication, languages and cultures, law and politics, psychology and education. On the other hand, faculty staff is also involved in a range of research tasks, such as empirical or theoretical studies, writing scientific papers, supervising Ph.D. theses, and so forth. The OUC's Internet Interdisciplinary Institute[1] provides administrative and technical support to faculty research tasks, and manages general research policy across the institution. Administrative staff takes care of a huge range of tasks and processes, such as registration, marketing, logistics, editing, financial management, information technology development and support, or administrative support to lecturers. Most of this staff is physically located in the specialised management areas, but some of them work embedded in academic departments acting as an interface between academics and administration. In this sense, due to the specific features of the OUC (such as virtual campus critical mission dependence and geographical dispersion of students, teaching collaborators and full-time staff), the importance of administrative tasks in a wide sense and the links between administrators and faculty are greater than usual in classical higher education institutions. Virtualisation favours process standardisation through computer applications (Cornford, 2000), especially when processes are mission-critical and highly time-dependant.

Part-time teaching collaborators (tutors) are usually the organization's front-end enabling e-learning study (although occasionally full-time lecturers play this tutor role). Tutors teach certain subjects to a student group in a six-month period. Each subject group has its own telematic space ("virtual classroom") to enable information and knowledge flows, which is provided with communication aids and information resources in electronic format. Career advisors (counsellors) support students throughout, helping them, in particular, to optimise registration decisions and advising them on a wide range of questions, incidents and administrative processes.

Students are the main users of the OUC's asynchronous virtual campus. The OUC's asynchronous and student-centred educational model's main features are explained in Sangrà (2003, p. 12) (Institutional information on the educational model can be found on: http://www.uoc.edu/web/eng/university/model_educatiu.html):

- **Flexibility**, in response to the different needs of the very diverse students. The OUC student profile means that they need a system capable of being adapted to their personal reality. Flexibility is offered in the assessment model, the subject study plan, access to information resources, and so forth.

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