A New Type of Library for the New European Space for Education: UPC's Learning and Research Resources Centre

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Abstract:

In the present framework of the new European higher education context development, we face a new model of library that should give answers to the future University needs: the library should become an strategic university service that helps students all through their learning process, which is the Bologna Declaration foundation.

The European university scene in 2010 will be based on a higher education global market, which main characteristic will be the constant mobility of academic staff and students, the need of a long life learning process and the intensive use of the NICT (new information and communication tech.) and Internet.

Teaching will not be the centre of the pedagogical model anymore, it will move to a new conducted learning process: educational environment will become more virtual and the higher student will manage its own educational project, learning, above all, from case resolution.

Within this new scenario, having key university services (libraries, computer services…) of high quality that contribute with new added values, will be of prime importance.

Libraries should find their place between those learning changes and be present and active in university strategic planning. There will be economic restrictions, which make essential to adhere to regional or subject consortia.

The UPC is developing a model of its future library known as CRAI (Learning and Research Resources Centre). This new Centre is intended to integrate university services related to information, documentation and ICT (Information and Communication Technologies), in a unique integrated environment, where users could find corporate information, scientific information, both individual and collective study areas, and access to networked multimedia products.

CRAI plays an important role in teaching and e-learning. It is a new library model that might integrate to other university services: information, publishing, computing intellectual property rights, language learning, labour assessment services, etc.

Introduction

The following article explains how the library services of the Technical Unviersity of Catalonia (UPC) are taking advantage of change and the opportunity to transform its libraries into resources centres that foster learning and university research.

After a brief description of the current state of affairs at universities, we will go on to explain the theoretical and practical ways in which UPC libraries plan to overcome the first major challenge faced by university libraries in this millennium: the transformation of traditional university libraries into comprehensive resource centres that aid teaching and academic research.

Several data regarding UPC will help us to view the present article in context:
it is a technological university, whose degrees in engineering, architecture, mathematics, statistics and the agricultural and food sciences are taught on 9 campuses in the main metropolitan areas of the province of Barcelona;
it has 30,186 students, 2,422 lecturers in 43 departments and 1,210 administrative and service staff.
The University budget for 2003 is of 1.382.544 €, from which currently allots a budget of 1,753,992€ to its library services.

The UPC has 13 libraries, distributed through its several campuses, which form the workplace for a total of 165 library staff and collectively house 420,000 volumes and 8,867 journals in addition to providing 135 databases and 2,406 reading points.

UPC's libraries have a wealth of experience in strategic planning, which dates back to 1991. The current strategic plan, *Paideia 2000-2005*, focuses on 5 main areas:
  • Library and learning , Library and research, Library and network, humanism and organisation.

Since 2001, one of the principal tools for the dissemination of resources and services has been "*Bibliotècnica*: UPC's Digital Library", the University Library's new web site. (http://bibliotecnica.upc.es).

Changes in the University Environment and at UPC

In 1999 the Bologna Declaration initiated a process with the purpose to develop a common policy for European universities, planned to be completed by the year 2010.
It was signed by 29 countries with a clearly defined common goal : to create an European space for higher education in order to enhance the employability and mobility of citizens and to increase international competitiveness of European Higher education.

Homogenization of European systems of education is, therefore, the main challenge of the upcoming decade.

Changes in methodology must take place in order to permit the convergence of different programmes, and the following precepts must be applied to teaching and learning:

- there must be a move away from the study of subjects, and towards the study of interdisciplinary areas;
- there must be a move to turn lecture based classes into supervised learning processes;
- there must be a reduction in the number of examinations and an increase in projects and problem-solving in teams;
- and finally, there must be a move to increase the number of study seminars, which will replace lecture based classes.

New Spanish legislation (2001) and legislation to be introduced this year in the Spanish autonomous communities are also important factors in this new setting. It will help to improve the quality of teaching, research and management; to promote the mobility of students and lecturers; to promote the production and dissemination of knowledge; and to use new information and communication technologies to respond to new challenges in distance learning.

Challenges Faced by University Libraries in Europe

All these changes in the European educational framework have led to a strategic reconsideration of the role of libraries, with new ideas being proposed regarding the role of librarians as well as the roles of facilities, collections and services.

European universities are working towards a new model for the university library, whether hybrid, virtual or digital, that will respond to present and future teaching and research requirements.

Many universities have already chosen to incorporate library resources into a much broader service, expanded to include computer, educational, multimedia, publication and foreign language services.

Thus, library services have become a key strategic element in the access to and management of information, and in the production, management and dissemination of universities' academic and research output.

But there are other factors that has carried us to this new concept of library: the new learning methods, budgets reduction, the increase in semi-distance and distance studies and the consequent diversity of library users, etc.

It has led many universities in the US and Europe to establish a new type of university library, projected with two main goals:

- first, the reinforcement of the role of on-site libraries as cultural centres and resource centres for learning and research, in which a great variety of collections, physical spaces for specific functions, and multimedia tools for consulting and editing teaching materials are available;
- and second, the promotion of new technologies and digital libraries, which are fast becoming universities' main source of information.

In Europe, the following libraries have pioneered the development of new library models and have become points of reference for many institutions, the UPC among them:

- **The Learning Adsetts Centre, Sheffield Hallam University, UK** (http://www.shu.ac.uk/services/lc/circ/adsetts.html) It was conceived so as to leave behind the concept of the traditional library and to support the university's needs well into the 21st century. The Learning Centre has library, IT, media viewing and production facilities; a learning and teaching institute, a print unit and teaching space.
- **The University of Hertfordshire Learning and Information Services, UK** (http://www.herts.ac.uk/lis/) comprise four on-campus Learning Resource Centres that provide integrated computing, library and media services to support learning, teaching and research .
- **The Information Resources Centre (IRC)** is a unique department of the **International University of Bremen, Germany** (http://www.iu-bremen.de). The combination of library, multimedia and information technology provides support for collaboration in research and study, and the IRC can be drawn upon to help design electronic teaching materials or to assist students and faculties in the electronic presentation of research.

The Learning and Research Resource Centre (CRAI)

Rebiun, which stand for *Red de bibliotecas universitarias,* is the Spanish Network of University Libraries, represented by the heads of the university libraries of Spain.

Since its creation in 1988, Spanish university libraries have undergone major changes both in terms of their position within universities and in terms of their function and the services they offer.

At present, university libraries' collective tasks are:
1. to adapt to new requirements and to new teaching methods and
2. to adapt to current changes in the sphere of scientific and technical information (exemplified by an increase in quantity and cost, and increasing dependence on the international press, which is gradually falling into the hands of large monopolies)
3. and the consolidation of library consortia as instruments that help libraries to improve their services.

Rebiun is not a consortia but a network of university libraries, and all their members are university library directors working together to offer guidelines for the development of all the university library systems in the country.

Rebiun's new three-year strategic plan, which addresses the period 2003-2006, is divided into five areas of activity: the university library model, information technologies, electronic information resources, staff training, and the organisation and administration of *Rebiun*.

The first strategic area involves the implementation of guidelines for building a new model for university libraries, which are conceived of as being an active and essential part of learning and research resource centres such as the CRAI.

Rebiun's strategic objectives for this strategic line are:

- To define a new model for libraries, in accordance with the new legal framework for university teaching, and which must be accounted for in new statutes and regulations governing universities
- To develop new organisational models to allow traditional libraries to participate in centres such as the CRAI and to smooth their consolidation with computer services and other university services, the incorporation and integration of different professional profiles onto library staffs and the organisation of library participation on cooperative projects.
- To plan new areas and facilities for the CRAI in order to grant a physical space where lecturers, students and researchers can find information and, in particular, where they can get assessment on how to find the information they require.

The CRAI at UPC

The following **examples** demonstrate how UPC's University Library has begun to **implement the new library model** by unifying the University's information, information management and information and communication technology services in a single multifunctional space:

- **Tailor-Made Bibliotècnica** is a project that aims to tailor the content of *Bibliotècnica* to the particular interests of university members.
  It is a UPC digital library platform that allows user groups and individual users to customize its content. It was designed to facilitate personalised access to services and to the information held in document collections.
  The system automatically detects a user's profile and recommends specific collections.
  Furthermore, the work interface allows this personalised content to be rapidly updated, so that one can include or erase elements of the *Bibliotècnica* collections, select new or recommended works and easily modify one's personal settings.

- **The lecturer's mailbox: the digital library by subjects** is a University Library project to classify the documents available at *Bibliotècnica* based on the needs of the first- and second-cycle subjects taught at the University.
  The aim of this restricted-access intranet is to design a archive of teaching materials that will be accessible to all members of the University.
  It will contain resources created by librarians, previously available documents recommended by lecturers and documents created by the Library to aid teaching. Students will be able to access lists of resources for specific subjects.

- **The Electronic Teaching Resources Areas** that have been created at six of the UPC libraries are part of a new project backed by UPC's Learning Resources Support Centre, the University Library and the Intel Corporation.

  These areas are equipped with hardware and software and are aimed at those members of the University who create teaching materials.

  They are designed to facilitate access to tools used to improve processes of teaching innovation, the implementation of new teaching methodologies for semi-distance and distance learning, and the training of lecturers in the use of electronic tools for access to and manipulation of digital information and documentation.

  Users of these areas can create materials in HTML format, digitalise documents and images, edit videos in digital format, edit documents in multimedia formats and publish documents on the University's intranets.

  Experts in information technology and multimedia and librarians who oversee the incorporation of *Bibliotècnica* resources into new teaching materials are on hand to offer advice and personalised support.

  The Electronic Teaching Resources Area also aims to regularly produce and manage new electronic teaching resources so as to increase the already busy use of existing electronic resources, to promote and implement new guidelines for digital information management and to classify new materials in order to make them accessible from the *Bibliotècnica* web site.

- **The Self-Learning Areas and the Virtual Language Laboratory**

  The UPC Libraries' strategic plan, Escher (1995-99), introduced what is one of the most current concepts in university planning onto the scene: the transformation of the teaching process into a process of self-learning.

  Its aim was to create self-learning areas where one could "learn to learn", and self-training areas that would offer multimedia materials for students to learn foreign languages, office automation and management skills, at which one could also learn to use the Internet and other information resources.

  Paideia (2000-2005), the current strategic programme, continues to emphasize the need to strengthen skills and abilities independently.

  The self-learning of languages is particularly highly demanded, and to this end virtual language laboratories have been created.

  This demand coincides with the University's aim to promote English as a first foreign language in response to growing needs within the framework of the EU in the areas of teaching and research.

  The **Virtual Language Laboratory** is designed to complement the self-learning of languages—English in particular, but also Catalan, Spanish, French and German.

  More hardware and self-learning software, which had previously only been installed locally at libraries' self-learning areas, has been made available on the networks.

Conclusions

This article shows how UPC libraries have begun to change in order to adapt to the CRAI, the Learning and Research Resources Centre.

New services and resources testify to the fact that libraries will be key tools in the development of new academic approaches in Europe, which will focus more and more on student learning and have already begun to reconsider the value of the teaching undertaken by university lecturers.

A resource centre must also, however, serve to university research; the University's other equally important goal. Along these lines, one must keep in mind the ambitious European research targets for 2010: the establishment of a true common European space, with research networks and activities to rival those in the United States and Japan.

There are, therefore, great challenges to be met by universities in coming years. New library services and resources must be designed to improve the level of university research.

The effects of this emerging challenge can already be seen in a specific number of products and services: the TDX project (online Catalan disertations in electronic format), the incorporation of all the available information on university research onto the Library web site (research lines, research groups, scientific production, etc.) and the creation of an institutional archive of e-prints.

Further information on these UPC projects, we hope, will be published in the near future.

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