

Virtual Library Services for a Virtual University: User-Oriented Virtual Sites in an Open Library

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INTRODUCTION

The arrival of information technologies, and the ever-growing and generalised use that is being made of them, has made it possible for a new scenario to appear which, in turn, has originated – indeed, precipitated – a series of changes of great import at all levels, but especially at the social, economic and cultural levels. This new setting has had a great influence on the pedagogical environment. Indeed, the rise of new educational models as a result of this change, has been happening in a continued and uninterrupted way during the last decade.

These recent changes in current teaching and learning systems have meant an increase and a change in the type of demands made from libraries and documentation centres. Here are a number of relevant elements which have had an influence on this and which we should consider briefly:

- changes in student typology. There are now part-time students of different ages, but they tend to be older and responding to different social situations (full-time or part-time working dedication) in what looks like a clear tendency.
- changes in the educational models, which are now focussed more on getting the student to learn by developing systems to help him or her in this objective, rather than on students' being taught.

Libraries would appear in this new environment to be one of the basic and indispensable elements in order to attain the objectives set, providing students with the elements they should use in order to develop their learning successfully, and providing educators with the services and tools that will facilitate their task of developing these new educational models, and finally providing researchers with those resources that will enable them to lay down the bases of their research.

An example of one such change is the work carried out by the Universitat Oberta de Catalunya (UOC), a distance university giving an educational response to the needs of a society which is plural in age, activity, income, residence by way of a non-presential, though flexible and open, education which uses new technologies to the utmost.

The pedagogical model of this university has the Library as one of its essential elements. The UOC's Virtual Library plays an important role in the development of teaching and learning, and is an integral and integrating part of the new pedagogical model, developing its function through a virtual campus.

The Virtual Library, acting both as library and documentation centre, is the new model of library (perhaps it might be interesting to find a new denomination for it) and is geared towards offering services to the university community using exclusively a telematic environment.

This new 'library' finds it indispensable to design, create and organise content as well as library and documentary based services adapted to a profile of virtual users which present a series of characteristics:

- they obtain access to information by remote means
- they do not necessarily have any technological knowledge
- they have no easy access to physical documents
- they cannot travel, or find it very difficult to do so
- they need immediacy
- they value personalisation



Library homepage

Taking all this into account, the library 'without walls', or virtual library, should conform to a series of characteristics, of which the following are but a few:

- an easy and friendly environment

- specific content
- personalised service
- 'just-in-time' response
- present at different locations on the Campus
- online training on the use of the documentary system

The activity of the librarian in the face of such a challenge is to centre himself or herself on the organisation and generation of information; on the creation of the appropriate services that should best suit the needs of each type of user; and on the training of these users in the use of the new documentary tools and resources in a way that may overcome the possible technological barriers to the use of information.

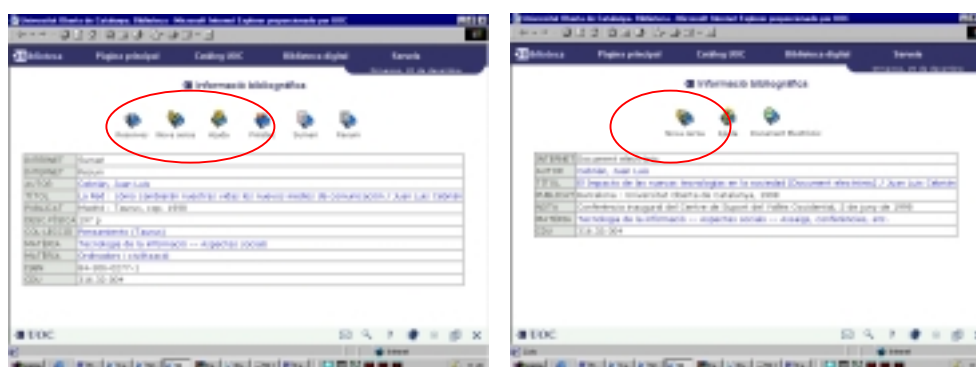
As a result of the foregoing premises, the UOC's virtual library has itself been developed according to three basic elements:

1. Two information managers: a commercial catalogue to which a number of special applications have been added in accordance with the characteristics of the environment, and a resource manager, which has been designed and developed at the university itself in order to facilitate the organisation and retrieval of all those information resources thought of as essential and which are not likely to be found in library catalogues.
2. Virtual documentary services, which include 'classics' in any type of library or documentation centre, which have been adapted to the virtual environment, as well as value-added services made possible by the technological means themselves.
3. 'Library' spaces in different locations within the Virtual Campus: the Virtual Classroom (or Aula Virtual, next to each subject), in the area of Teaching Support, in the area concerned with Management, and finally in the space dedicated to research (the Internet Interdisciplinary Institute, better known as IN3)

INFORMATION MANAGERS

The two client/server elements configuring the Virtual Library aggregate are:

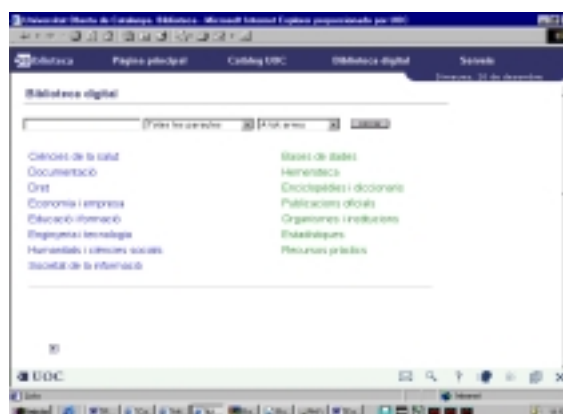
- The BUOC catalogue: this is a commercial catalogue to which some essential and special applications to do with virtual libraries have been added:
 - The possibility of managing loans on line: this application permits a whole series of transactions related to this service: document order or reservation, and renewal or cancellation of such a document.
 - Access to an electronic document or to the summary of the physical document: the catalogue is a combination of documents in the traditional support and in electronic support (documents in electronic support can be generated by the library, by the university, by information services, or become available from the Internet); hence, it is far from being a traditional bibliographic catalogue, as it has the possibility of accessing a document on line if it is available from the servers where it is located.
 - Access to the data base of the summary of journals.
 - Connection with Web sites related to the journals included in the catalogue.
 - Access to downloading different types of software.



Bibliographic record: access to online loan, Index and abstract of

Access to electronic document

- The Manager of Information Resources, the *Dinaweb*: This program generated at the university itself facilitates to the information professional the management of all the resources he or she is about to offer to the user, which depart from the catalogue-inclusion schemes, which are more and more abundant in the type of libraries we are referring to, and which, perhaps in a short time, could even become more important for the library than those actually included in the catalogue. These resources include databases, electronic magazines, all sorts of Internet resources, information Web pages which had been static up to now, and so on. In addition, this resource manager generates the Library's Web pages, acting at the same time as a search engine in its capacity as a client.



VIRTUAL DOCUMENTARY SERVICES

The Library has created virtual documentation services for students, educators and researchers. Apart from the 'classic' services (loan, finding of documents, electronic dissemination of summaries from journals, and so on) always adapted to the needs of the virtual user, other services have been developed whose main characteristic is that they are personalised services, which are periodically updated and 'pushed' – in other words, users receive them in a personalised way through their mailbox. The most important of them at present are:

- The Selective Information Dissemination service (DSI) which selects information and documentation according to the theme profile defined by the user himself. After an exhaustive initial compilation, the service updates itself following the periodicity requested by the user. Some currently operative DSIs compile information on computing for the legal sector, electronic marketing, virtual organisations, enterprise, and so forth.
- The News Service, which periodically compiles information on specific issues when it locates them in the most significant and relevant journals within the area defined: e-commerce, computer crimes, information management, and so on.
- Official Publications: *pushing* services of the daily updates of the official publications issued by autonomous, national or European institutions.
- Financial Journals: a daily information distribution service of the most relevant financial newspapers.



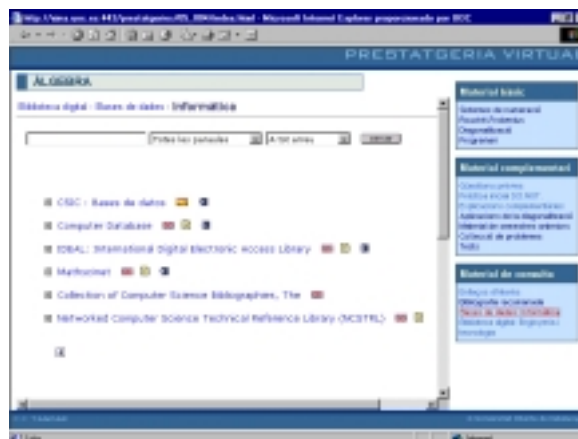
News service

THE LIBRARY AT THE DIFFERENT LOCATIONS WITHIN THE VIRTUAL CAMPUS

The library complements its documentary action by developing important projects for each type of user – students, teaching staff, management staff and researchers:

As regards students, and within the sphere of learning , the following have been designed:

- The Virtual Shelf, a space complementary to the subject within the Virtual Classroom (or Aula Virtual). It compiles all the information and documentation which a student may need during the course in order to develop the subject in question in an efficient way, and is structured at three different levels: basic, complementary and consultative.
- Specific manuals on the use of information sources which are part of the didactic materials of some subjects: Multimedia and Communication, Introduction to Law, and others.



Virtual shelf

As regards teaching staff, and within the space named *Teaching Support* devoted especially to counsellors and tutors, there is a selection of services which may be most useful to them: a selection of resources (which may be our own, or commercial or from the Internet), a service for finding internal and external documents, and some of the virtual documentation services which we have detailed in the section above.

With regard to researchers, the library's presence within the space devoted to research (IN3) has started with a service for the identification and selection of the most important national and European sources of funding, together with a news service and DSI support, as well as a selection of electronic journals and databases related to the lines of research.

Virtual Communities: the Library is also present at the different spaces accessible for communities offering services and content related to their themes.

CONCLUSION

The role of today's libraries is changing, and their functions are being influenced by the technological change currently taking place and having ample repercussions on the political, social, economic and cultural environments. These changes, on the one hand, are favourable to the library's functions, as they imply a greater amount of information within the library's reach, together with an easier and easier access. On the other hand, this immense ocean of documents and information requires new skills and knowledge on the part of professionals, which they are supposed to acquire and possess. The role of the librarian / documentalist is becoming more and more one of organising, selecting and generating information, and of training the user in the use of the new documentary tools and resources, rather than one of storing the documents contained within a specific space – or of offering them to the user. The way ahead is one of organising and facilitating access to a space containing an infinitude of information.

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