

## **The Library in the card: results from DECOMATE project and current developments at UAB**

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### Abstract

The Library in the card is the slogan which would summarize the aims of the UAB Library Service in its involvement in several EC Libraries Programme projects. It refers to the possibility for a member of the UAB community to access whatever document he/she needs from his/her desktop on time. The identity card should be the key which opens his/her library without hours and place constraints.

This paper would like to explain the results from the DECOMATE project one year after its completion, to have a look into UAB usage studies and further conclusions and to make the audience aware of planned work in the follow up project DECOMATE II.

In a summary UAB Library Service is currently offering the UAB community (35.000 students, 2.500 academic staff and 1.500 administrative staff) access to 267 scientific journals at their wish.

Articles are provided by three publishers (Elsevier Science, Kluwer Academic Publishers and the own UAB Publications Service) directly on electronic form, including the bibliographic data.

DECOMATE is the modular and generic system which allows the management of authorization/identification of users, encryption of transactions, searches in the bibliographical database using Z39.50 standard, retrieval of articles PDF files and extraction of statistical usage data with postprocessing purposes.

This service became operational on October 1996 with a small set of titles and after the pilot phase and optimal results, it was enlarged with many more titles in order to cover far more scientific areas.

Partners in DECOMATE project, namely Tilburg University, London School of Economics and Universitat Autònoma de Barcelona, with the additional collaboration of the European University Institute and SilverPlatter company, submitted a proposal for a follow up project to the 1997 Call of Proposals of the EC Libraries Programme which has been approved. Project's work started in February 1998.

DECOMATE II stands as a short name for Developing the European Digital Library for Economics whichs builds on the former experience of DECOMATE project and aims to enhance its features with the addition of

- . distributed searching of heterogeneous information resources within a specific scientific area, Economics,
- . access to services provided by different libraries in Europe through a single uniform interface,
- . integration of current awareness services,

- . development of an information browser module with advanced capabilities for deduplication, ranking, tracing of documents, implementation of thesauri and subject matching algorithms,
  - . integration of an accounting module which allows the library to extend its services to external users with compliance of commercial providers conditions.
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### **The Library in the card: working on it at a Spanish university library**

Universitat Autònoma de Barcelona is a medium sized Spanish university located about 20 km away from the city of Barcelona. It comprises some 32.500 undergraduate students in almost all scientific fields, 3.000 postgraduates and 2.500 lecturers. These are organized in 46 academic departments and 15 research centres.

The UAB Library Service (SBUAB) has the mission to serve the information needs of this whole community by the most cost-efficient means. It comprises eight area libraries in the main campus of Bellaterra, plus a library serving Sabadell Schools of Business Management and Informatics, plus four hospital unit libraries in Barcelona and Badalona. With 650.000 monograph volumes and 34.341 journal titles of which 13.000 are currently received, more than four million people entered the libraries in 1996.

In 1989 the Library Service started the automation of its catalogue through the acquisition of the VTLIS package and it completed the retroconversion of its holdings in 1994. It also participated in the foundation of the Consortium of the Catalan University Libraries and the building of its collective catalogue.

In parallel SBUAB started its engagement in European projects with the aim to keep its own staff up to date with current developments in librarianship, to develop and implement prototypes of new applications and services which could enhance the information offer to the university community, to find funding for new equipment, to establish criteria for evaluation of these emerging technologies based on experience and knowledge gained through the test periods of prototypes and, last but not least, to closely cooperate with different and varied libraries all throughout Europe.

All these experiences led to the vision of a library which is integrative and flexible, which overrides space and time constraints. This should be the library in the card. The library of the institution, opened for its members 24 hours a day, 7 days a week. The identity card opens its doors for them from their desktop and offers them primary as well as secondary digital information resources, contact points and several document delivery options.

Step by step this vision becomes reality. One of these steps, an important one, is Decomate service, the local digital collection management service, the result of UAB involvement in the EC Telematics for Libraries funded project, DECOMATE. This paper will try to draw a picture of the results from one year full operative Decomate service in its implementation at UAB.

### **DECOMATE: Delivery of Copyright Materials to End-Users**

DECOMATE project was carried out from March 1995 to February 1997 under the coordination of Tilburg University (The Netherlands) and with the participation of the London School of Economics (United Kingdom) and Universitat Autònoma de Barcelona (Spain).

It intended to build a generic system which would allow the management of access to electronic commercially distributed documents. It developed such a system and tested it with scientific journals in the field of economics at all three involved university libraries.

System main features are:

- . Use of web browsers and PDF reader at the users side.
- . Modular design with following characteristics:
  - Authorization through username and password combination.
  - Verification through PGP.
  - Bibliographic database accessed via Z39.50 standard.
  - Document server using HTTP protocol.
  - Statistical database based on SQL and ODBC.

Reports and software can be obtained by accessing the project's dissemination web site at <http://www.lse.ac.uk/decomat/>

### **Use of Decomate service at the Universitat Autònoma de Barcelona**

After the test phase and project's end, Decomate service prototype was found enough successful to be worth the allocation of additional resources in order to proceed to a significant expansion of the contents. During the project only 34 journals were available, half with holdings from 1995 onwards and half with holdings starting in 1996. Almost all these titles were included in the Economics field. One of the main findings of all projects working in the digital library building area, including Decomate, was the need to provide a critical mass of relevant content in order to really be able to evaluate the usefulness of such systems.

SBUAB decided to enter into a three years contract with Elsevier Science which included the majority of UAB subscriptions for this publisher. Kluwer Academic Publishers and UAB Publishing Service were also providing articles to Decomate service at UAB. This allowed SBUAB to incorporate new titles during the year and to reach the number of 267 journals in all areas in December 1997. They comprised 38.349 files, including articles, editorials, reviews, etc, relating to 2.035 journal issues.

Usage during 1997 is to be summarized as follows: 1.131 distinct people accessed the system after identification in 4.099 sessions. They performed 21.568 searches, including both direct access and journal browsing databases. 4.918 articles were downloaded. An unknown amount of distinct persons entered as guest in 849 sessions, performing 3.412 bibliographic searches. Entering with this login does not entitle to access full texts.

54,26% of sessions came from offices connected to the UAB network. 25,95% of them accessed via Internet and 2,55% of sessions originated in connections to the UAB via PPP. The favourite access place was by far, 82,76%, from the user desktop at his/her

working place. 12,41% of sessions originated in UAB libraries and 4,83% came from UAB computer labs.

The analysis of the impact the service had between our academic community by department, scientific areas and group categories is given in its main figures:

#### Impact on UAB academic community 1/1/97-31/12/97

| Scientific area                        | Total lecturers | Active lecturers | Impact in %  | Regular users | % regulars/actives | % regulars/total |
|--|-----------------|------------------|--------------|---------------|--------------------|------------------|
| Experimental sciences and technologies | 610             | 138              | 22,62        | 26            | 18,84              | 4,26             |
| Health sciences                        | 711             | 69               | 9,70         | 12            | 17,39              | 1,68             |
| Human sciences                         | 398             | 35               | 8,79         | 6             | 17,14              | 1,5              |
| Social sciences                        | 967             | 125              | 12,92        | 33            | 26,4               | 3,41             |
| <b>Impact on lecturers</b>             | <b>2.689</b>    | <b>367</b>       | <b>13,64</b> | <b>77</b>     | <b>20,98</b>       | <b>2,86</b>      |

|                                |              |            |             |           |             |             |
|--------------------------------|--------------|------------|-------------|-----------|-------------|-------------|
| <b>Impact on postgraduates</b> | <b>3.313</b> | <b>120</b> | <b>3,62</b> | <b>21</b> | <b>17,5</b> | <b>0,63</b> |
|--------------------------------|--------------|------------|-------------|-----------|-------------|-------------|

| Scientific area                        | Total undergraduates | Active undergraduates | Impact in % | Regular users | % regulars/actives | % regulars/total |
|--|----------------------|-----------------------|-------------|---------------|--------------------|------------------|
| Experimental sciences and technologies | 7.093                | 178                   | 2,50        | 9             | 5,05               | 0,12             |
| Health sciences                        | 3.365                | 37                    | 1,09        | 2             | 5,40               | 0,05             |
| Human sciences                         | 9.867                | 73                    | 0,73        | 2             | 2,73               | 0,02             |
| Social sciences                        | 12.101               | 205                   | 1,69        | 7             | 3,41               | 0,05             |
| <b>Impact on undergraduates</b>        | <b>32.426</b>        | <b>493</b>            | <b>1,52</b> | <b>20</b>     | <b>4,05</b>        | <b>0,06</b>      |

Data for undergraduates, postgraduates and lecturers are taken from *UAB Memoria del curs acadèmic 1996-97*.

An active user is defined as the person who has entered the system at least once during 1997 under the personal identification procedure.

A regular user is considered as the person who has accessed the system at least in three different months during 1997<sup>1</sup>.

|  |               |            |             |            |              |             |
|--|---------------|------------|-------------|------------|--------------|-------------|
| <b>Impact on lecturers &amp; postgraduates</b> | <b>6.002</b>  | <b>487</b> | <b>8,11</b> | <b>98</b>  | <b>20,12</b> | <b>1,63</b> |
| <b>Impact on academic community</b>            | <b>38.428</b> | <b>980</b> | <b>2,55</b> | <b>118</b> | <b>12,04</b> | <b>0,30</b> |

It is quite useful to see different rates of penetration between scientific areas corresponding to the relevance and extension of the content offered, the availability of infrastructure and the level of IT literacy.

Analysis of the effectiveness rate title by title was also performed by defining it as the % of files downloaded from the total files at a given date for every title. It gave some idea of the usage proportion of the material and it seemed more relevant than the absolute figures of downloadings. The effectiveness rate would be influenced by the initial year of subscription, by the total number of files per title and also by the timely delivery and mounting of new files into the system, especially if taken into account that the same titles are still available at the UAB libraries in paper edition. Distribution of reviews into several files or accumulation in only one, will also have its impact on the

<sup>1</sup> Based on TULIP project finding that "graduate students and faculty visit the library on average every two to three months". As expansion of contents to all areas at UAB just started on April 1997, accesses in three or more different months are already considered as a regular use.

effectiveness rate. In the long term this rate could be a good starting point for evaluation of acquisition versus access decisions, if it is accurately ponderated and then combined with the subscription and article delivery prices.

### **Promotion of the new service**

Promotion is a key issue in the introduction of a new service, like it is for a new product. For the general awareness of the new service SBUAB published two posters. The first one during the project and the second one when expansion of contents was decided. These posters were distributed in libraries and other public spaces in the university.

A leaflet containing the full list of journal titles included in the service was published in May and sent personally to every lecturer jointly with the salary note in June. First look for many of them was to check out if their favourite journals were included in the list. A positive checking derived in active users, sometimes claiming on too short covering periods.

Journal titles and its electronic holdings were included in the library's catalogue. When accessed via the web gateway, the user is able to click on the service address from the electronic holdings record of each journal title.

The homepage of the SBUAB presents a link to the new service. The newsletter of SBUAB also published the list of journal titles. Repeated announcements were sent to the internal newsgroup of the university.

### **Contact with users**

A contact point for users to ask questions, make suggestions and put claims is a must for every service. Decomate entry page guided people to the own library staff or to an e-mail address for any question.

Over 150 messages were received at the contact e-mail address. Most of the questions related to identification issues. Technical problems arosen related to the use of Microsoft Explorer which does not recognize PDFs files identified on header rather than on file name and to the use of an obsolete proxy.

SBUAB choosed to implement a personnel identification procedure based on the official identification chip card provided to every UAB member. This was also the system for keeping track of personel operations in the library's catalogue, like loans and reserves.

This system allowed to provide the maximum of access facilities to UAB members and to comply with license conditions at the same time. Remote access was allowed as personnel identification was in force. It also gave the maximum of usage data to evaluate the system, although keeping in mind that protection of personnel data is guaranteed by law, measures have been taken to this end.

However personnel identification of a large community from about 40.000 people does not run without problems. Changes are frequents. Updating is a must. SBUAB relies for

accuracy on the various administrative departments which provide the data for any person. Errors are unavoidable. Fast and accurate responses are needed.

## **DECOMATE II: Developing the European digital library for Economics**

On February 2nd, 1998 took place the kick-off meeting of DECOMATE II project. Coordinated by Tilburg University, this project builds on the previous experience of DECOMATE and aims to enlarge, enhance and complement several of its features. London School of Economics and Universitat Autònoma de Barcelona are involved as main partners. European University Institute and SilverPlatter Information are associated partners to Tilburg University. Université Libre de Bruxelles, Erasmus University Rotterdam and Maastricht University agreed to act as test sites. Elsevier Science, Kluwer Academic Publishers and Swets & Zeitlinger, as sponsors, collaborate in content and user studies and the evaluation of the new system.

The goal of DECOMATE II is to develop an end-user service which provides access to heterogeneous information resources distributed over different libraries in Europe using a uniform interface, leading to a working demonstrator of the European digital library for Economics.

Specific objectives of the project:

- . distributed searching across different applications and locations,
- . access to heterogeneous information resources e.g. library catalogues, bibliographic databases, full text databases, Internet resources,
- . testing of different types of economic models e.g. free materials, campus/consortium licensed materials and pay-per-view distribution,
- . use of a single uniform interface,
- . integration of personalised current awareness services,
- . development of an information browser module with advanced capabilities for deduplication, ranking, tracing of documents, implementation of thesauri and subject matching algorithms and,
- . integration of an accounting module which allows the library to extend its services to external users with compliance of copyright holders conditions.

It will last 30 months - July, 2000 -, and it will comprise four phases, e.g. specification/preparation, software development and implementation of the generic release, implementation of developed software at the involved sites and, finally, demonstrating phase at sites of the consortium members and final system installation at the new test sites.

In order to carry out the project, work has been split out into eleven workpackages, everyone led by one of the main partners:

- WP1. Licenses, content definition and acquisition (LSE).
- WP2. Systems analysis and conceptual design (TU).
- WP3. Access to multiple distributed databases (TU).
- WP4. Advanced access to information (TU).
- WP5. Current awareness services (UAB).
- WP6. Access control, accounting and document delivery (LSE).
- WP7. System assembling and library integration (TU).

- WP8. User studies (LSE).  
WP9. Software finalisation and testing/installation at test sites (TU).  
WP10. Information dissemination (UAB).  
WP11. Project management (TU).

News on current work, public reports and related information is available from the dissemination's web site at <http://www.bib.uab.es/decomat2>

### **Conclusions:**

Results from Decomate service at UAB during 1997 show that users become interested in real digital libraries offering relevant contents. There is however a need for deep promotion and further training in order to reach in a short period the critical point of usage which ensures continuity of the service in the long term.

Users expectations, once awoken, are very high regarding digital information and services. Ease of access and relevance of contents are the more demanding in terms of implementation efforts.

There is a general feeling that digital information does not cost at all. Whether managing a centralised budget or dealing with small disseminated departmental budgets, the library must achieve to gain consent for digital resources acquisition and management. This is only possible if content is recognised as relevant and added value of digital files is easily perceived.

Involvement in research and application projects is an useful way for a library to enhance its services. But successful results are only possible with effective participation of its own staff and being centered on its own users expectations.

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