Distance Education in Rural Areas via Libraries

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<td>Project Number: LB-5660</td>
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Co-ordinator                     Authors:  Mary Shapcott (Editor)
Brigitte Kühne
Kalmar Läns Bibliotek
P.O. Box 963
S-391 29 Kalmar
Sweden

New address:  Adrian Moore
Universitetsbiblioteket
S-351 95 Växjö
Sweden

Deirdre Ellis-King
Diane Dixon
Gerald Leitner
Karin Sigmund
Daniel Wisser
Haidee Perez Perez
Ylva Jacobsson
Brigitte Kühne
Distance Education in Rural Areas via Libraries  
Project Number: LB-5660  
Final Report - Deliverable D9.18

Executive Summary

This report describes the DERAL project and its progress between May 1998 and December 2001. DERAL is part of the European Union's Framework 4 research programme. It is classified under the Action Line: “Library services for access to networked information resources” and the Call Topic “Integrating library services with distance learning”.

DERAL was undertaken at a time when lifelong learning was being promoted. The public library is a natural place for people to go to learn, and many libraries are now equipped with computers and Internet connections. People who do not have their own equipment, and who find it difficult to get to traditional courses can now pursue Internet-based distance learning from their public libraries. DERAL had two main aims:

To provide public librarians with guidelines concerning distance learning

To develop a gateway for Web based distance learning resources for adult distance learners.

There were five partners in the DERAL project: Kalmar Läns Bibliotek, Sweden, Büchereiverband Österreichs, Austria, Ayuntamiento de Huesca, Biblioteca Pública Digital, Spain, University of Ulster, Northern Ireland and Dublin Corporation Public Libraries, Ireland. Each partner is worked in conjunction with public libraries which acted as pilot sites.

The report contains a background section in which the three issues of lifelong learning, distance learning, and the spread of Internet technology are introduced and their impact on the public library sector are assessed. We comment on the major developments in lifelong learning during the course of the DERAL project.

We then describe the work undertaken. The early stages of the project were concerned with user requirements. We summarise the results of an earlier study by the Swedish partner and the outcome of user surveys carried out in the pilot libraries. These results were broadly in line with results in the existing research literature - that most interest was occasioned by courses in computing and the Internet, but that a broad range of subjects was of interest. Few prospective users were prepared to pay for many of the courses, but were most interested in free material.

For this reason we decided to concentrate on free resources. We have collected resources in four languages (English, Swedish, German and Spanish) and have now made them available via the Web.
The DERAL Gateway is a Web-based interface through which users gain access to the collection of learning resources. We have completed the design of the Gateway and an initial implementation has been prototyped. One feature of the Gateway is that users will be asked to give feedback about the resources that they access and the results of such evaluations will be used to give ratings to the resources.

As a result of consultation with the literature and work with librarians from the pilot sites we have identified five major roles for public librarians in the area of distance learning. These are facilities provider, honest broker, information provider, educator, and marketer. We discuss the roles in some detail.

We also report progress on some other work packages: a training module for librarians using the Internet, on the issues of security, copyright and costs and on videoconferencing.

An evaluation plan has been produced and we outline its contents.

We give a list of dissemination activities.

There has been a fair degree of interaction with other European projects and we summarise this.
FINAL PROJECT REPORT
DERAL
Distance Education in Rural Areas via Libraries

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1. Introduction

Public libraries have always provided their members with access to self-improvement and knowledge. DERAL: “Distance Education in Rural Areas via Libraries” aims to extend this tradition at a time when telecommunications and computing technologies are developing rapidly. Governments are seeking to promote life-long learning so that all citizens will be able to contribute to a society in which increasing levels of competence are required - both in the traditional areas of numeracy and literacy and also in the new skills of information and communications technology. Educational providers have moved quickly towards having a strong presence on the World Wide Web and DERAL will help public librarians to introduce their users to such distance learning resources. Many adults want access to basic skills such as numeracy and literacy and there are also many people who have still had very little experience of using computers or the Internet. The DERAL project is investigating the potential role for public librarians in making the local library a friendly place for life-long learners to continue their education.

In this report we describe how we have undertaken the programme of work for DERAL. We introduce the project partners, we describe the project in more detail and summarise the results to date.

DERAL is part of the European Union's Framework 4 research programme. It is classified under the Action Line: “Library services for access to networked information resources” and the Call Topic “Integrating library services with distance learning”.

2. Partners in DERAL

There were five partners in DERAL - four partners from the public library sector and the University of Ulster. They are as follows:

Kalmar Läns Bibliotek, Sweden
Büchereiverband Österreichs, Austria
Ayuntamiento de Huesca, Biblioteca Pública Digital, Spain
University of Ulster, Northern Ireland, United Kingdom.
Dublin Corporation Public Libraries, Ireland

2.1 Background of the Partners

The organisations have different but complementary experiences in the role of public libraries in providing educational information for their users.

Kalmar Läns Bibliotek - Sweden

Kalmar Läns Bibliotek (KLB) has a strong record of accomplishment in distance education projects. In 1995-96 KLB carried out an Internet-based information technology project, called "Telematics for librarians" together with the University College of Kalmar and part-funded by the Swedish National Council for Cultural Affairs. In the pilot project the participants learnt about computers and telematics via Internet and e-mail. KLB was the lead site for the DERAL project.

Büchereiverband Österreichs - Austria

Büchereiverband Österreichs (BVÖ) is the umbrella association of Austrian public and school libraries, in which more than 2600 libraries are joined as members. The BVÖ is a non-profit organization, acting on behalf of these libraries and supporting them with all kinds of services. Within the last three years BVÖ has started to offer a wide range of online services including the BVÖ homepage, a central web opac, creating and hosting web pages for libraries and offering internet tutorials in practical courses as well as on the web. In addition the BVÖ guides and manages the education of librarians in public libraries.

Municipality of Huesca - Spain

Huesca (HDL) is a small city situated in the North East of Spain, near the French border and it has a population of 50,000 inhabitants. The Municipality of Huesca in collaboration with the University of Zaragoza is currently involved in a project giving small peripheral communities of the Member States access to the Information Society. Under this scheme, the public library of Huesca is engaged in constructing a Digital Public Library aiming to give scholars, students and vocational learners, living in rural areas, access to information and knowledge.

University of Ulster - Northern Ireland

The University of Ulster (UU) has 20,000 students, many of whom are adults and part-time and from low-income groups. The Faculty of Informatics at the University of Ulster supports both basic research and technology transfer, and maintains close links with local
SMEs in Northern Ireland. The University carries out research activities across a broad range of themes, including many educational ones. The University hosts the Centre for Computing Education in the UK government-funded “Computers in Teaching” initiative.

**Dublin City Library - Ireland**

Dublin Corporation provides a public library service, Dublin City Library (DCL), to meet information needs of the people of Dublin. These needs range from information for education, training and employment, to requirements for recreation, entertainment and the purposeful use of leisure time. Programmes of activities are organised such as workshops, lectures and recitals, which encourage a process of informal and life-long learning. Language learning facilities and computer learning facilities are available in some branch libraries that encourage self-learning. The Open Learning Centre in the Central Library, Dublin is a testing centre for the internationally recognised Institute of Linguistic Examinations. Public Internet access is available in a number of service points and this is currently being extended to all service points by the end of 1999.

**2.2 Experience of the Partners**

All the partners have had strong links with the public library systems in their countries, and with the exception of Huesca in Spain have participated in research projects. Both Dublin Public Libraries and the University of Ulster have had extensive experience of European Commission research projects.

However, the Internet was a new experience for some of the partners. Austria has had little experience in distance learning. Huesca has a digital library, but no experience in how this could be used in distance education; Ireland has had experience in distance education with the participation of public libraries but was keen to expand this. The Kalmar County Library had experience in distance learning for public library staff, but not for library users.

**2.3 Pilot Sites**

DERAL was a practical project in which public librarians and library users participated from an early stage.

Kalmar County in the south-east of Sweden is a rural area which is known for having among the lowest educational level in the entire country. There were eleven participating sites in Kalmar, most of which are small branch libraries, but also some city libraries.

In Austria, there were four pilot sites: the public libraries in Mistelbach, Wiener Neustadt, Ried im Innkreis and Zirl. Internet technology was a new experience for the Austrian library system.

The Austrian sites were representative of the Austrian public libraries. The media collections range from 7,000 (Zirl) to 47,000 (Wiener Neustadt).

In Huesca four public libraries participated. Three of them were rather small, whereas Monzon was somewhat bigger (14,400 inhabitants). The three smallest were not equipped with computers before the project started, but Monzon already had a public computer connected to the Internet.
The University of Ulster is worked with the North-East Education and Library Board of Northern Ireland (NEELB). Two branch libraries acted as pilot sites: in the country town of Ballymoney and in Ballee, a working-class housing estate, on the outskirts of the town of Ballymena in County Antrim. The library in Ballee already housed an open learning centre which ran in conjunction with Ballymena’s college of further education. The Oasis Centre contained several multimedia computers.

There were two pilot sites in Dublin. As indicated above the Central Library in Dublin had had a lot of experience with adult learners and provided both independent learning facilities and Internet facilities. The Ballyfermot Public Library, in a working class suburb of Dublin already had a set of Internet-enabled computers which were widely used by the public. Both sites were keen to expand their educational role.
3. The Need for Distance Learning in Libraries

In many parts of Europe there is a substantial proportion of the population who have difficulty in following conventional formal education and who are interested in different routes to skills and qualifications. People living in rural areas, the unemployed and the elderly and disabled may be a long way from university, college or high school, or the opening hours may be unsuitable.

Distance education, particularly using the Internet can provide a solution to such problems, but not everyone can afford the latest, expensive technology. It is here that the public library system can help. Increasingly, public libraries are being equipped with advanced multimedia equipment and fast Internet links and so have the technology to let their users participate in distance learning. One should not forget that besides all the technical equipment libraries still play an important role for providing reference and supplementary material as well as being places where people gather and discuss problems and other things.

So, as well as being information providers, libraries can continue to play an educational role, as facilitators of distance learning and the DERAL partners worked together to investigate how this could be achieved.
4. Outcomes of the Project

The two major outcomes of the project were as follows:

1. The first outcome was a gateway to distance learning resources on the Web. This collection of courses and resources has been compiled using the subject areas in which users in the pilot sites have expressed an interest.

2. The second outcome is a set of guidelines for public librarians. These guidelines were intended to aid in the delivery of distance-learning courses and resources. The public librarian can act as a broker between the course providers and students. Visitors at public libraries need help in finding distance-learning resources and in using them once they have found them. The guidelines include both practical advice based on the experience of the pilot sites in the DERAL project and pointers to further Web resources on the issues.
5. Impact of the Expected Results

It is hoped that the overall benefit will be that citizens in remote areas will have improved mediated access to distance learning resources via their public libraries. This will not only improve the quality of living in general but will assist in creating new jobs and new participation in the evolving information society.

DERAL serves a prototype in four, widely differing regions of Europe and is a possible model for Europe-wide access to distance learning through public libraries.

The impact on three distinct user groups is hoped to be as follows.

1. The first group, educational distance-learning providers, can reach out to more potential students, thus ensuring the efficient use of scarce and expensive educational resource material.

2. The second group, the librarians, can extend their role to one in which they aid to the interaction between course providers and learners/students and become “information brokers” to the distance learners.

3. The final group, the users, have flexible access to learning materials, and can use e-learning materials via communications technology supplied in the library.

Long distance educational learning providers are currently investing in Internet and other multi-media authoring and delivery technology. The DERAL project provides a framework for interaction with libraries, which is in principle extendible to other organisations as points of delivery. The major difference is that the library can provide the student with on-the-spot reference material to back up the long-distance material, but other organisations, such as drop-in centres or even large companies wishing to participate in courses without their employees leaving the workplace could also act as points of delivery.

 Libraries will have to invest in the appropriate communications technology. For most this will mean the installation of an Internet connection, be this via a conventional telephone line or a high-speed link. Libraries will have to train their staff to be able to use Internet and other technology in order to help distance learners. Many libraries are now connected to the Internet has decreased significantly.

DERAL provides a pathway for libraries and educational providers to get together, in order to use these resources efficiently.
6. Lifelong Learning, Distance Learning and Public Libraries

In this section we present some of the background to the DERAL project. We briefly discuss the current impetus for lifelong learning. We then go on to describe developments in distance learning and in open learning in libraries, developments which are being fuelled by faster computers and high-speed telecommunications. These developments are promoting interactivity, the capacity of an educational environment to promote communication between learner and educator.

6.1 The Push for Lifelong Learning

Governments around Europe have recently become aware that many people with low educational attainments are finding it more difficult to find work. The Swedish government started a national campaign in order to give all unemployed people the possibility of upgrading their low school education with courses especially worked out for adult people not used to study (“Kunskapslyftet”). In the U.K. for example: Older and Younger (1995) set out the findings from a survey carried out by Gallup into the basic skills difficulties of different age groups.

“Overall, 17% of people said that they had difficulties with reading, writing/spelling and/or numeracy.”

A City University survey (1997) reports:

“By the age of 37 those with very low numeracy skills, and those with low or very low literacy skills, are much less likely to be employed full-time than those with average or good skills.”

This appears to be a growing problem because the often-forecast impact of computerisation on unskilled and repetitive tasks has finally occurred. There are still many jobs to be done but they need a higher level of competence than in the past.

Even people with good qualifications find their jobs becoming obsolete. The term ‘life long learning’ refers to the concept that people should be constantly updating their education throughout their lives. The British Government has created a ‘University for Industry’ which will be “dedicated to creating a culture of lifelong learning throughout the working community” (University for Industry, 1999)

Unlike younger people, who are usually able to attend full-time university or further education, adults often have difficulty in finding suitable study opportunities. They may already have a job or family commitments, which prevent them from attending conventional courses, or they may be looking for specialist training which is unavailable locally. For many years, distance education has provided at least a partial solution to these problems. New technology is now enriching the process of distance education.
6.2 Distance Learning

Distance learning is learning in which the educator and the learner are separated in time and space. Traditionally, space separation has been most important. Distance education has been used for education in rural areas where students have lived a long distance from their nearest educational establishments. More recently, time separation has become more important than space separation. Distance learning has expanded to include many adults who need to fit their study outside normal working hours. Some people have difficulty fitting traditional courses into their life - costs of travelling in terms of money and time can be prohibitive. Distance learning reaches people otherwise excluded from the learning process. People don't have to leave their jobs and don't have to relocate in order to take courses and acquire qualifications. Distance learners in higher education tend to be older, are often female and there is some evidence that distance education appeals to students from disadvantaged social groups (Thompson, 1998).

Traditionally, distance learning courses have been delivered using study packs comprised mostly of printed material. The learner studies the material and sits examinations at the end of the course. Usually there is some personal tutoring, even if this is only in marking assignments and providing feedback.

Although distance learning has become widespread, it has disadvantages that have prevented its universal adoption. Studies of distance learners in higher education indicate that they have higher dropout rates than students of campus-based courses (Cookson, 1990). This is partly explained by the lower educational attainments of the students starting the courses but the students often cite the teaching/learning methods as a reason for non-completion.

6.3 Learning in Libraries

As we have already remarked at the beginning of this report, the public library system was set up to promote self improvement. Libraries have always provided opportunities for study. More recently it has been recognised that they can also give access to the latest educational technology and many libraries in the U.K. and in Sweden for example have been equipped with open learning centres. These have typically had a clutch of personal computers, with access to a CD-ROM, and a collection of learning packs.

Libraries in rural areas can fulfil the function of rural access points and thus not only provide technical facilities but also be prepared to provide access to digital information and data for everyone whose access to those sources is restricted.

6.4 The Impact of Internet Technology on Distance Learning

The Internet provides all sorts of opportunities for improving distance learning. The most obvious facility it gives educators is the possibility of placing materials on the Web for students to read or download.

More useful are specially-developed multimedia materials which hold the student's attention and allow for interactivity. These tend to be expensive to develop but are potentially suitable for large-scale operations where a large number of students use the material.
Most successful in the university sector have been various course support systems. These systems usually include the following:

- facilities for on-line discussion groups where students and teachers can develop lines of argument which all students in the class can read and contribute to,
- on-line tests and examinations,
- course administration facilities such as enrolments, timetables, coursework submission and return.

Such interactive learning environments (Cravener 1998) are now widespread. The Harvard Business School on-line learning environment (MacColl, 1999) is one of the most well known and includes a course management environment and on-line real-video case studies. The British Open University is embracing the use of the Web for many of its operations (http://www.open.ac.uk).

However not all authors are convinced that the technology is mature. Bork and Britton (1998) argue that simply delivering information is inadequate. They contend that few of the courses that they found in a Web search were truly interactive.

More worryingly a recent American study found that the new technologies were potentially excluding poor students “who do not have access to the Internet or who have been inadequately trained” (Gladieux and Swail, 1999).

6.5 Public Libraries and Distance Learning

It is clear from the discussion above that public libraries can help deliver distance learning via the Internet. At the very least public libraries can provide computers with internet connections so that library users can access resources.

Public libraries are able to build on the role that they have already developed with open learning centres and provide human support to the distance learner in the rather impersonal process of distance learning.
7. DERAL - Work Undertaken

There were ten work packages in the DERAL project. Here we give a brief description of each work package. A more comprehensive list of work packages and deliverables can be found in Appendix B.

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<tr>
<th>Name</th>
<th>Work package Description</th>
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<tr>
<td>WP01</td>
<td><strong>State of the Art</strong></td>
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<tr>
<td></td>
<td>Gather information from existing European projects, report on the existing Swedish study. Some work on requirements for proposed gateway.</td>
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<td>WP02</td>
<td><strong>User Requirements (European Dimension)</strong></td>
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<td></td>
<td>Formulate the role of public librarians in distance learning. Refine the results of WP01 - determine the requirements of adult library users for distance learning in the five partner areas.</td>
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<td>WP03</td>
<td><strong>Inventory of Web-Based Learning Resources</strong></td>
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<td>Use the requirements generated in WP02 in order to find suitable web-based learning resources and organise them into an inventory for use by public library members</td>
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<tr>
<td>WP04</td>
<td><strong>Gateway Design and Prototyping</strong></td>
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<td></td>
<td>The DERAL gateway will be a searchable interface to the inventory of web-based learning resources created in WP03. System development will follow the prototyping model. It is expected that two iterations will be performed during the 24-month length of the project.</td>
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<tr>
<td>WP05</td>
<td><strong>Trials and Evaluation</strong></td>
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<td></td>
<td>Select suitable assessment procedures for usability evaluation and conduct trials at the various partner sites.</td>
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<td>WP06</td>
<td><strong>Security, Copyright and Costs</strong></td>
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<tr>
<td></td>
<td>Use results from existing European projects such as ECUP to collect and report on copyright issues. Also consider security and costs.</td>
</tr>
<tr>
<td>WP07</td>
<td><strong>Training Module for Librarians Using the Internet</strong></td>
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<tr>
<td></td>
<td>Prototype and test a module for Internet use which will be suitable for the education of public librarians</td>
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<tr>
<td>WP08</td>
<td><strong>Video-Conferencing - Future-Proofing</strong></td>
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<td></td>
<td>Examine the possibilities for interactivity using video-conferencing</td>
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<tr>
<td>WP09</td>
<td><strong>Coordination and Management</strong></td>
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<tr>
<td></td>
<td>Reports, accounts, coordination and management.</td>
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<tr>
<td>WP10</td>
<td><strong>Evaluation and Dissemination</strong></td>
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<tr>
<td></td>
<td>Project web site, workshops, conferences, and publications.</td>
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7.1 State of the Art (Work Package 1)

The deliverables reported in Section 7.1 are

D1.1 Summary of technical possibilities, state of the art, in the five countries
D1.2 Report on existing studies.
D1.3 Report on user responses.

The other two deliverables from work package 1, namely D1.4 and D1.5 are discussed in Section 7.2.

7.1.1 Public Library Service and Pilot Sites

Deliverable D1.1 reported on the public library services in the five participating countries and on the pilot sites. The table below (taken from D1.1) gives information concerning the size of the public library service in each country - both in terms of the number of public libraries and the number of borrowings per capita.

<table>
<thead>
<tr>
<th>Country</th>
<th>Sweden</th>
<th>Austria</th>
<th>Ireland</th>
<th>U.K.</th>
<th>Spain</th>
</tr>
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<tr>
<td>Per Capita</td>
<td>9.2</td>
<td>2.2</td>
<td>3.2</td>
<td>8.58</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Borrowings per year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Libraries</td>
<td>2000</td>
<td>2633</td>
<td>347</td>
<td>4511</td>
<td>4301</td>
</tr>
</tbody>
</table>

The pilot libraries in Sweden were well equipped with computers. Most of them had internet connections, in line with Sweden's excellent library service. One of the two sites in Northern Ireland had four computers in an open learning centre but neither had Internet connections at the time (Internet connectivity in the U.K. in early 1998 was about 10% of public libraries.) The two sites in Dublin were well equipped and both had good Internet connections. Wiener Neustadt had internet technology in 1998 while the other three Austrian sites only started in late Spring 1999. OPACs in operation by 1997 were: one in Ried, two in Zirl, one in Wiener Neustadt and 5 in Mistelbach. None of the Austrian pilot sites had an open learning centre.
7.1.2 The Existing Swedish Study

Deliverable D2.1 reported on several distance learning courses: one run by Kalmar in conjunction with the University College of Kalmar in 1995-96, a course for Library Education at the University/college in Borås, and one with the Universities of Uppsala, Lund and Umeå. These were IT courses for librarians run over the Internet and were generally well received.

The positive points were similar to those we have already mentioned:

- being able to work at one's own rate
- discussion groups are great,
- chatting is very good and interesting,
- doesn’t cost anything (but this might change in the future),
- all the reference media can be found “behind” in the library,
- being able to get help from interested and skilful colleagues in the library.

However there were also negative points:

- missing the personal contact between students (working from your own workstation)
- having to wait with a question until the teacher reads my question
- some students miss having a “mentor” or somebody else who can help with technical problems.

Almost all students wanted a joint face-to-face meeting at the beginning or at the end of a course. The courses from the Universities in Uppsala/Lund/Umeå were run solely on an electronic basis and even if the course providers thought that students would prefer some human contact, the course went extremely well without physical meeting (almost no drop-outs at all) but with very much hard work from the course leaders.

7.1.3 Report on User Responses - Deliverable D1.3

For deliverable D1.3 partners were asked the following: what types of people would be most likely to use distance-learning in their local libraries; to give reasons as to why public libraries should support distance learning; and to give reasons as to why educational providers should channel distance learning through public libraries.

The results were generally in accord with previous findings reported in the distance learning and adult learning literature. For example, in the Library Association's “Look up - and learn: adult independent learning guidelines for libraries and learning resource centres”, Bamber (1995) identifies the following as adult independent learners:

- Self-employed business people
- Women returners
- Those seeking an educational ‘second chance’
• Retired people and older age groups
• People who are physically isolated.

Aldrich (1995) reports that increasingly this is also including people who need to update their skills in an ever changing work environment, people don't have the time to enrol on traditional courses or don't want to give up their job while training or don't want to move location to take a course.

Likely users of our pilot sites were people who wanted to pursue further study via distance learning but who were without their own personal computers and Internet access, but there were also people who liked the friendly atmosphere of the public library for study purposes.

The survey on Austrian library users undertaken by the pilot sites showed a great need for acquiring basic computer skills. As a lot of the questionnaires were submitted from people under the age of 20, the interest in study aids for completing formal education was also very high. Library users of 20+ were keen on improving language skills.

The public librarians viewed the provision of distance learning in the library as a natural extension of their role in the community. All the librarians mentioned one decisive aspect. The public library was and is in most villages the only information provider so it has the responsibility of supporting the user in satisfying his or her information needs.

Educational providers see libraries as extra outlets for their products, outlets that cost them nothing to set up. For young people who want to make up for poor performance in the past, and start studying again, public libraries are less threatening places than schools and colleges. The public librarian can give the educational provider feed back on difficulties that the students encounter.
7.2 Development of DERAL Inventory and Gateway

This section describes the development of the DERAL course inventory and the associated Gateway software. We relate the gathering of user requirements and the design stages we carried out.

The Gateway is operational. It has a Web-based interface to a relational database of distance-learning resources. The database is located on the DERAL server in the University of Ulster.

7.2.1. User Requirements

In order to ascertain the nature of the demand for distance learning resources we devised a questionnaire based on the questionnaire used by Dublin in LISTED (Libraries Integrated System for Telematics-based Education), a European Union funded research project. The questionnaire asked respondents for their gender and age and whether or not they were already a library user. It then asked them why they wanted to use the Internet - whether for study, learning a skill, as a hobby or simply browsing. They were also asked to nominate three subject areas of interest. The questionnaire included a list of possible subject areas such as computing, numeracy, languages, jobs, and study skills, so that respondents would know what sort of subjects might be on offer.

Deliverable D2.2 contains survey results from the questionnaire.

The group of Swedish respondents was most interested in computer skills, wanting to use the library to acquire these before going on to other topics. There seemed to be three groups of users, retired people who wanted to learn computing in order to be able to follow their grandchildren, unemployed people who wanted to learn how to surf the internet, and “real” distance students who originally studied at a university but preferred to do it from home and wanted the calm atmosphere at the library.

In Huesca more people seemed to follow distance courses for personal development and in order to improve their job prospects. Not many were unemployed. Courses of interest were mostly in computers and the Internet, basic skills, and languages, but also in agriculture, astronomy and cattle raising. Problems for users were: the space in the library, opening hours of the library and costs.

In Northern Ireland there were two groups of users - people who were already attending the Oasis Open Learning Centre in Ballee and the users from ‘off-the-street’ in Ballymoney. The Oasis group were somewhat more interested in following a specific course of study whereas the other group tended to understand the word ‘study’ to refer to the self-guided use of materials on specific areas of interest. The subjects of most interest were roughly the same for the two groups, with computer awareness, Internet and e-mail figuring highly as well as basic skills such as mathematics and reading and writing skills. Job finding, study skills and health were also mentioned. We suspect that a larger group of users would have come up with an even more diverse set of interests - manufacturers of wooden floors, and spinal biomechanics were included in respondents’ interests.
Users in Ballee and Ballymoney in Northern Ireland were keen to use the Web as a reference library and to spend time simply browsing. People were not very interested in following a specific course of study over the Internet. Rather they wanted to use the computers in the library to supplement an existing programme (such as an attendance in the Oasis Centre - the open learning centre in Ballee) or to pick up enough information to be able to carry out a specific activity (such as navigating the Internet or setting up a Web page). Few of them were prepared to pay the serious money that many of the courses on the Web seem to require, but were keen on using the Internet for study and for learning.

Deliverable D1.4 contains a task analysis for the DERAL gateway. It is based on the user requirements for a collection of distance learning resources which can be used by adult learners in public libraries.

**7.2.2. Course inventory (WP03 D3.1 and WP10)**

The incredible but unregulated growth of the World Wide Web has meant that there is a lot of useful educational material available which is difficult to find. An important deliverable from the DERAL Project was an inventory of useful resources and courses. This section describes progress on completion of this inventory.

Using the conventional search engines on the Web it is difficult to find good courses and resources on topics of interest and at the level required. The purpose of the DERAL inventory was to bring some of these resources together into a manageable and easy to use gateway.

In their responses to the user questionnaire users had expressed an interest in a wide range of courses and resources, sometimes very specific. We selected the most popular types of course and categorised them into broad subject areas. This allows users then to focus on courses and resources in the areas they are interested in.

It can be difficult for people to know exactly what they are interested in until they know what is available. By categorising courses and resources into broad areas this makes it easier for users to browse the subject area they are interested in and to find more specific courses and resources.

As already mentioned, people in our test areas were generally often areas of high unemployment and therefore most could afford to pay for courses. We therefore tried to primarily concentrate on looking for free courses.

**Criteria used for Selection of Courses**

When choosing the courses and resources a number of issues were considered:

- The terminology used in the site - was it based too much towards the American education system and therefore the resources and courses might not be as useful to people in Europe
- The authority of the contributors to the site - were the people writing the material experts in their own fields and was the information reliable? Was the site accredited by a government authority or educational institution?
• Was the course/resource easy to follow what to do - was the site laid out in a clear and concise manner - did the links within the site work?
• Was the information at a level that people required - at whom was it aimed?
• Cost of the courses - trying to find free courses - not excluding courses that have to be paid for - generally these came under "more courses".

Evaluation was carried out based on the questions in appendix A of D5.1

Finding courses and resources

Once we had established the broad subject areas of interest we were then looking for courses that were free or not expensive and mostly at a basic level as most of our users come from areas of high unemployment and have limited qualifications.

As a result of searching for courses and resources, we have found that there are distance education courses and resources that are aimed at the university and school sector but limited material for those users who want something at a basic level and aimed at adults.

A number of different methods are being used to find courses, including the following:

• Using search engines such as Altavista and entering terms based on the subject areas in which users were interested.
• Following recommendations from colleagues working in the field of distance education.
• Following links from sites which sometimes can lead to better resources
• Searching for something else and coming across links by accident
• Partners have been active in contributing resources that they have found.
• Articles in journals which have provided links
• Collaboration with Computers in Teaching Initiative (CTI). The CTI Computing is a UK nationally funded initiative and is one of 24 subject-based Centres, staffed by academics with expertise in educational technology. CTI Computing reviews courseware and publishes resources via the World Wide Web
• Collaboration with the Swedish Radio (UR), Kunskapslyftet and other adult study providers not coming from the Universities.

Comments

The courses and resources are not listed in any order and have not all been ranked. We hope that the users will help with this.

Some courses and resources within a particular site are a better quality than others, e.g. with a site offering different languages; some languages are better than others.

To access some of the courses and resources certain software will need to be downloaded to the test machines. This software is available free from the Internet.
We are continuing to add courses and resources with all partners active in providing links. The list of courses included does not include all the links, as we will be adding more links shortly.

We carry out checks to ensure that the links are still active.

Conclusions

We have found that there are more courses and resources aimed at universities and schools rather than adults and that it is difficult to find good courses and resources that are free. Also we have discovered that there is an American bias in the material found. New material appeared on the World Wide Web and we continued to add material for the lifetime of the project. We also recognised that links disappear and we continued to monitor the existing links in the inventory.

Austrian library sites encountered problems with the English language. In grammar schools you usually have eight years of English. Most of the Austrian librarians working full time completed A-levels. Foreign languages (English and French) have a low standing within the syllabus of technical education.

7.2.3 Gateway (WP04)

The DERAL Gateway is a multi-lingual access point for a collection of free web-based distance learning courses and resources. The collection is sourced and managed by librarians via a private interface, and accessed by visitors to the library via a public interface. Users are invited to contribute to the collection by submitting reviews and ratings of resources they have used, or by suggesting new resources for inclusion in the collection.

Gateway Architecture

The heart of the Gateway is a relational database containing details of the resources within the collection. Each entry is described by the following information:
<table>
<thead>
<tr>
<th>Database Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Unique identifier for the resource</td>
</tr>
<tr>
<td>Name</td>
<td>Title of the resource</td>
</tr>
<tr>
<td>URL</td>
<td>Web address where the resource is located</td>
</tr>
<tr>
<td>Description</td>
<td>Briefly describe content of the resource</td>
</tr>
<tr>
<td>Language</td>
<td>English, Swedish, Spanish, German</td>
</tr>
<tr>
<td>Category</td>
<td>Different categories available in each language</td>
</tr>
<tr>
<td>Accesses</td>
<td>Keep count of the total number of accesses</td>
</tr>
<tr>
<td>Last</td>
<td>Date of the last access to this resource</td>
</tr>
<tr>
<td>Rating</td>
<td>Rating provided by librarians or by users</td>
</tr>
<tr>
<td>Review</td>
<td>Pointer to reviews submitted by previous visitors</td>
</tr>
</tbody>
</table>

The database is accessed by users invoking resources on demand (read access) and by librarians who maintain and update the collection (read/write access).

The interface is generated dynamically according to the currently selected language. Initially, English, German, Spanish and Swedish language versions are available (reflecting the languages of the DERAL partners), and French and Italian versions are planned. Whenever the Gateway is invoked, it initially defaults to the previously selected language, but all others are available at all times (Figs 1 and 2). Regardless of the language selected, the following operations are available to users.

(i) Select category
The user chooses his area of interest. At present, the English language version of the Gateway has resources in the following areas: Computing, Job Seeking, Languages, Writing Skills, Numeracy, and Other miscellaneous resources.

(ii) Launch resource
By clicking on the name of the resource, the selected web site is opened in another browser window. The selection is logged for various accounting purposes.

(iii) Change language
By clicking on the desired language, the English language user is able to browse the resources available through the Swedish, German or Spanish versions of the Gateway.

(iv) Recently visited

*The user is reminded of the resources visited in the current session*

(v) Most popular resource

The top 10 most popular resources in the current language are displayed.

(vi) Search collection

The user is able to perform a free-text search on the title and description of all resources in the current language. Those resources in the collection which match the search term are displayed.

(vii) Home

The user is returned to the initial welcome screen of the Gateway.

(viii) Review resource

The user is invited to contribute a review and rating of all resources they have visited.
In order to make the Gateway available as early as possible, and so that evaluation of the resources can proceed in parallel with gateway development, a prototype was established. This prototype provided access to the collection of the courses, as well as illustrating the current state of gateway development.

The final Gateway is illustrated below.
7.2.3 DERAL Web Site Plan

The Gateway is one of three components of the DERAL Web Presence, the others being the Project Information Web Site and a Web resource for Librarians. Each component has been developed in accordance with the workpackages.

The Index page is the main entry point for the casual browser who has arrived at the DERAL site through a search engine, or via some external link. This page presents a brief overview of the project and provides clear links to the home pages of each of the 3 sub-sites. The sub-sites are easily distinguished by use of colour-coded header backgrounds, and have clear links back to the index page. Content is available in the different languages of the DERAL partners where appropriate.

7.3 Guidelines for librarians

Librarians are generally happier with the role of helping users find information than of education. For example Garrod and Sidgreaves (1998) write

"Some computing staff described library staff as clinging to outmoded notions of professionalism and as being overzealous in helping students who needed to become more independent as learners"

An important component of the DERAL project is in establishing how librarians can help distance learners in the library.

There are various difficulties in doing this. For example, Bamber (1995) argues:

"As a group, adult independent learners are well established as library users. What is far less established is either the growing importance of this group of library users, or an understanding of the ways in which libraries and library staff can help to satisfy the very diverse needs experienced by individuals who fall into this category."

We have reported on the expected role for public librarians in deliverable D2.1. We have identified five major roles, based on information found in the research literature concerning distance learning and adult learners in libraries as well as from discussions with the Swedish librarians.
These are as follows:

1. Facilities Provider,
2. Honest Broker,
3. Information Provider,
4. Educator,
5. Marketer.

Some of these areas are familiar ones: others of them are new to librarians, and require skills which librarians do not normally possess.

We will now discuss these roles in more detail:

1. Facilities Provider


“Public libraries provide, through their widespread distribution across Europe, a cost-effective infrastructure for lifelong learning and easy access to the content of the virtual networks.”

Here the library is a location from which to work. The library provides a chair and a computer with Internet access and the student carries on with his or her own learning. The librarian needs to be able to help with simple troubleshooting. If the hardware develops a fault then the librarian should be able to check that all the cables are connected, that the main power is on, and that switches and dials are at the correct settings. With software failures, the librarian should be able to advise students about common problems such as incorrectly written Web addresses, missing floppy disks and be able to re-start a “frozen” computer. Librarians need to be able to help users find their way around the local software settings which may differ from standard ones.

2. Honest Broker

Because the librarian is a trustworthy person who can deal both with the providers of distance learning and with members of the public he or she can act as an honest broker.

For example, the librarian can monitor a student’s attendance in studying. At present the Dublin City Library records the attendance of students who come into the Open Learning Centre at the Central Library in Dublin. When a student has completed a certain number of sessions he or she can apply for a certificate of attendance which can be used later on when he or she applies to enter a course at some other institution. The certificate does not guarantee that the student has achieved any particular level of expertise in a given subject area, but it indicates that the student has an interest in studying and the persistence and application to carry out a course.

Librarians can take an active role in the administration of distance learning courses. This can be particularly useful in the administration of on-line tests. The library can be an accredited test centre and the librarian can verify that the person taking the test is indeed
the person that they say that they are. Both the ECDL (European Computer Driving Licence) and the MOUS (Microsoft Office User Specialist) accreditation authorities allow for testing to take place in accredited test centres which can be public libraries.

3. Information Provider

Being an information provider is perhaps the role with which librarians are likely to be most comfortable. Librarians should be able to help members of the public find out about courses of interest and other learning materials. DERAL aims to provide a useful set of distance learning resources which will be widely available on the Web, but there is an extra role for librarians in keeping track of resources which are particularly appropriate to their own library users. So far we have found that there are relatively few complete distance learning courses which are Web-based (see Section 7.2.2 above), but that there are many educational resources which are freely available on the Web and which are likely to be useful to people who want to learn specific skills and get specific small pieces of information.

Of course much of what a librarian does is intended to support educational activities, such as creating catalogues, helping people to use the library, finding reference materials and answers to specific questions, and it could be argued that any of these jobs is fulfilling the information provider role.

4. Educator

The role of being an educator is one which is quite remote from a public librarian’s normal expectations. School librarians are often familiar to this role, though, and open learning centres in libraries have also given librarians some experience with teaching. Educational research has shown the importance of the personal relationship between teacher and student, and potentially, the librarian can provide an element of humanity that is often missing from distance learning courses. In taking on the role of educator a person is taking some of the responsibility for the student’s course of study: for maintaining their self-confidence and motivation as well as guiding them in their programme of work. This role can be quite a daunting prospect, particularly without training, and many librarians feel quite intimidated by it.

5. Marketer

The role of being a person who markets the fact that the public library can offer distance education courses is also a role that most public librarians are very unfamiliar with. Some of them do not even want to work with this role. In some countries (e.g. in Sweden and Austria) marketing has for many years been something that is ‘commercial’ and not an issue with which public libraries should deal. Slowly though, more and more library staff have come to realise that this is a very important role, if not ‘others’, i.e. commercial data or computer agents will take over.
7.3.2 Work Package 7 - Training Module for Librarians Using Internet

The aim of this module was to produce an Internet-based tutorial which covered the basics of using the Internet. This tutorial was intended to aid librarians in their first role - that of facilities provider.

A first prototype was tested in a training course for Austrian librarians and modified as a result. The main topics of the course were selected bearing in mind the requirements of librarians. A course has been designed using Microsoft PowerPoint. The topics covered included searching, the use of e-mail and discussion lists with examples for librarians.

The tutorial was produced in German and adapted for Internet uses.

In later stages BVÖ has developed internet training tools that are freely offered on the web (http://www.bvoe.at/ik)

Thus BVÖ wants to support those who cannot attend practical courses or on the other hand want to practice and repeat what they have learnt. Development is still going on and user feedback is collected in order to optimize the tools provided.
The Swedish librarians worked with a training module which had been produced in Swedish especially for librarians (http://www.dds.se). It is hoped that this will provide useful ideas for the modules in other languages.

Huesca is also prepared two different Internet courses for public librarians, one of them in collaboration with the University of Zaragoza, and the other one with the Diputacion de Huesca.

7.4 Security, Copyright and Costs

Good distance learning resources are expensive to produce and so security, copyright and costs are all-important issues. Deliverable 6.1, “Existing practice for copyright in distance learning” reported on existing practice for copyright. It drew on work done by project ECUP, European Copyright Users Platform, which was set up under the Telematics for Libraries Programme, DGXIII/E4. ECUP started in 1994 to look at and monitor the situation regarding copyright. They conducted a Copyright Awareness Campaign for libraries and have created a web site which gives information on European copyright developments.

EBLIDA, the European Bureau of Library, Information and Documentation Associations, through the EFPICC (European Fair Practices in Copyright Campaign) has drawn up examples of Fair Practice Copying which it is hoped will be used in all European states. These practices include the copying of reasonable parts of work for educational purposes.
and the display on-screen of lawfully acquired material to allow normal users on-site to access it.

At present a directive concerning the harmonisation of certain aspects of copyright and related rights is under consideration by the European Parliament. EBLIDA is disappointed with this directive. It is felt that it unduly restricts the rights of the library user to fair copying.

Deliverable 6.1 concluded with an agreement by all the partners that copyright law should not be used to create further barriers between the information rich and the information poor, but that publicly funded libraries should be aided in their official role as information brokers.

The issue of security has arisen in relation to the Data Protection Act in the United Kingdom. We have decided to anonymise the access to the DERAL gateway (see WP04), in order to comply with this Act.

Concerning costs we have found (Deliverable 6.3) that few of the users were prepared to pay for learning resources over the Web. Elsewhere in this report we have explained why we concentrated on free resources. Users were more interested in finding resources which would help them with courses which they were already studying. This does not mean that they would rule out enrolment with a distance-learning provider who would use the Web as a delivery mechanism, just that such a step would be likely to be expensive and undertaken on a one-off basis. Payment for services and goods provided over the Web is now possible for credit card holders, but not yet for cash transactions.

7.5 Video-conferencing (WP08)

The aim of this work package was to examine the potential application of videoconferencing techniques to the DERAL Gateway architecture. The basic idea of videoconferencing is that each participant has a video camera, microphone, and speakers mounted on his or her computer. As the participants converse, their voices are carried over the network and delivered to the other participants’ speakers, while the image captured by the speaker’s video camera appears in a window on the other participants’ monitor.

Deliverable 8.1 examined the current state of the art in videoconferencing technology with respect to three areas: research into the field, published standards, and commercial products. We then identified the main benefits and drawbacks of videoconferencing for the DERAL Gateway. As a result of this survey, three conclusions were reached as follows.

1. The high-bandwidth Internet connection required by most ISDN applications is currently beyond the reach of most of the test sites in the participating countries.

2. There is currently a dearth of available courses which use videoconferencing. This is illustrated by the nature of the courses and resources obtained in Workpackage 3.
3. The nature of videoconferencing requires that a minimum of two sites be simultaneously involved. This goes against the constant availability of web-based course, where users can learn at a time suitable to them, without any requirement for time-tableing or other co-ordination.

On analysis of these conclusions, we decided that the DERAL project should proceed on the basis that test sites were equipped with no more than a 28.8 Kbs dial-up PSTN connection, and that learners may proceed with any course at any time. Although such assumptions effectively preclude the use of videoconferencing, we feel that this decision served the best long-term interests of the project and provides the best opportunity for future success.

7.6 Evaluation (WP05)

We produced an evaluation plan for the project deliverables. This plan covers the remaining life of the project and is reported in detail in Deliverable D5.1. “Report on assessment of selection procedure”.

The main users of the site were expected to be public librarians and library users. We asked public librarians in the pilot sites to evaluate all aspects of the DERAL web site. Library users were asked to evaluate the learning resources catalogue and the gateway software.

Librarians in Ballee and Ballymoney in Northern Ireland and in Dublin viewed the inventory of courses and navigated through the site. A few issues arose, such as the need for testing on a range of browser platforms, but overall the reaction was very positive. After these informal evaluations we will refine a set of questions for user focus groups, initially in Ballymoney, Ballee and Dublin and later in the other partner countries.

The guidelines for librarians were evaluated informally by the partners and the participating librarians. These were written as a useful set of Web pages for public librarians wanting to help library users who are interested in distance learning and that content rather than presentation is most important.

7.7 Dissemination (WP10)

All partners have been active in dissemination and dissemination activities have been reported in detail in previous reports.

D10.1 Produce web pages and co-ordinate the project Web sites.

Work began immediately after the kick-off meeting.

Most participating libraries have now their own web pages which can be found under the DERAL homepage. Different discussion groups were put on the web pages, both national (regional) ones and a joint group for all participants. Work was constantly being carried out on the development of the web site and in producing guidelines for librarians.
D10.2 Articles and other publications

A general leaflet, written in English has been produced. (In consultation between UU, Dublin Public Libraries and KLB for use at conferences etc.)

Many articles were published and information was spread via the press and television as well.

D10.3 Participation in National and International Conferences and meetings

The participants in DERAL attended numerous conferences and meetings over the course of the DERAL project and these have been listed in the various project reports.

7.8 Management Issues

In the reports from the previous annual project review in Luxembourg (11th November, Luxembourg) the reviewers stated that a clearer focus to the project was needed and that less time should be spent on management. In particular, the project should draw on results from previous European projects such as LISTED and EDUCATE and utilise the experience from the distance learning literature. It was also particularly important to resolve the difficulties with the Spanish partner.

Consortium Meetings

The partners held the first consortium meeting in Sweden in May 1998. At the second meeting in Belfast they discussed recommendations by the first review reports. It was agreed to alter content of the work packages in line with the recommendations of the review reports. A summary of the minutes of this meeting are contained in Management report no. 2.

The third consortium meeting was held in Vienna on 29th and 30th May 1999. Progress on all the work packages was discussed.

The next consortium meetings were held in Huesca in November 1999, Dublin May 2000 and a final meeting in Nice November 2000. This provided the project with an opportunity to demonstrate the project at IST2000.
8. Relationship with Other European Projects

We have used results from other projects.

At an early stage we consulted results from projects such as PLIS (Public Libraries in the Information Society), PLAIL (Public libraries and independent learners) and other European projects.

The questionnaire from LISTED (Libraries Integrated System for Telematics-based Education) was used in the user requirements phase. We have found much useful material on the EARL (the Consortium for Public Library Networking) and PUBLICA sites (The Concerted Action for Public Libraries in Europe) and have disseminated information about DERAL through PUBLICA and Exploit Interactive (http://www.exploit-lib.org/issue1/deral/). We have also asked if we can be allowed to use some models from the DEDICATE project for exploitation.

Work package, WP06, on security draws on work done by project ECUP, European Copyright Users Platform, which was set up under the Telematics for Libraries Programme, DGXIII/E4. Also EBLIDA, the European Bureau of Library, Information and Documentation Associations, through the EFPICC (European Fair Practices in Copyright Campaign) has drawn up examples of Fair Practice Copying which it is hoped will be used in all European states.
9. Results and Plans for the Future

We have used previous work in both European projects, and in open learning in libraries in order to devise our user requirements phase. We found that public library users were keen on finding out about courses in computing, using the Internet, languages, jobs and numeracy, as well as a host of more specialised topics. The same profile of major interests showed up over the three sites that have analysed the questionnaires.

Roles of the librarian

As we have mentioned above we have identified five major roles which the public librarian can play in distance education: facilities provider, honest broker, information provider, educator and marketer.

This is an exciting but early time in the development of the Internet and it is not really possible to predict which role is likely to be most important. For example, several companies in the United Kingdom already provide access to the Internet via television set-top boxes, obviating the need for investment in a separate personal computer. The market penetration of television is 100% in the U.K., so that access to the Internet should become much easier, possibly rendering the role of facilities provider redundant. The development in Sweden is very similar.

In the somewhat longer term multimedia technology is likely to improve enormously, so that speech recognition technology may obviate some of the need for specialised training in using computer technology - so that some of the potential educational role might disappear.

However, these developments are still some time off, and we feel that it is important to consider each of these roles.

Facilities Provider

This role overlaps strongly with general provision of Internet and open learning technology in public libraries, a well-researched topic, and we are not considering it in any great detail. However, librarians new to the field need training in these areas so this role forms part of the librarian-training module.

Honest Broker

In this role the librarian acts as an intermediary between the student and a distance learning provider. We have investigated the European Computer Driving Licence and the Microsoft Office User Software. All partners are examining the possibility of administering these tests via their test library sites.

Information Provider

We have compiled a selected inventory of distance learning resources, based on the information we acquired during the user requirements phase. This inventory contains resources in four languages and is organised according to categories indicated by users. All the resources are free and usable on-line. We are planning to evaluate the course inventory by surveying library users. Some of these users will be independent learners,
others will be using open learning centres in the libraries and will make use of the resources as an adjunct to their courses.

**Educator**

This role is the most controversial for librarians: the librarians at the pilot sites do not see themselves as educators but acknowledge that in certain circumstances they may need to help distance learners in the process of education.

Where there are open learning centres the librarian may need to play an educational role in distance learning and we will evaluate how this happens in the case of the Ballymoney library.

University College Dublin has been offering courses in the field of adult education for the past 50 years. The courses vary from a wide variety of interest courses to those offering certification and credits. Courses are provided from the main UCD campus, and in a number of outreach centres around the city of Dublin. Online courses have been offered as part of the Adult Education programme over the past 2 – 3 years to people interested in pursuing lifelong learning online. The DeLLTTi programme provides a flexible user-friendly learning environment with the option to take courses from the home, community centre or the public library – wherever a connection to the Internet is available. There will be a maximum of 15 people taking part in this evaluation of the courses which last between 10 – 12 weeks and are designed in one hour lesson blocks.

The results of the course work and the evaluation will be of great benefit to the DERAL project and to the Adult Education organisers in University College Dublin. Further information about the DeLLTTi programme can be found at [www.ucd.ie/delltti](http://www.ucd.ie/delltti).

**Assessment**

We started with the first workpackage, "State of the art" and gathered information from the different participating regions. While doing this we equipped the participating public libraries with PCs, printers, scanners etc. and connected them to the Internet. We have interviewed those coming in order to get to know the user requirements.

We have trained staff and have also connected them together in different discussion groups via e-mail, teaching them how to use the multimedia resources. In this way we have created a platform based on the Internet for regional and international cooperation between public librarians who want to share experience in distance education, exchange opinions and ideas, and get access to expert advice and training.

The public has been invited to come to their nearest library and look at what is offered via the net. In all places the press, radio and TV have also come and reported on the project and the benefits associated. There is great enthusiasm for the concept of learning over the Internet. After a while, though, many have been disappointed. This is because in Sweden, Spain and Austria people want courses in their own languages and in courses suited to the conditions in their own countries. In Austria for instance, users don’t want German courses, but *Austrian* courses. Another problem has been the cost of courses. People are not willing to pay a lot of money in order to get a certificate, when they can get the same certificate cheaper from another adult course provider.
Sweden

In Sweden the main problem from the beginning was to get “ordinary people” to come to the libraries and take part in distance studies. We had publicised DERAL with articles in newspapers and journals, had sent leaflets to the surrounding house-holds, had broadcast TV-advertisements, had cooperated with job agencies and course providers etc. Despite these serious efforts, not as many people as expected came at the beginning (numbers ranged from 2 to 8 at the 11 participating libraries).

One possibility for the small up-take of DERAL was the fact that very many Swedes have their own private PC (more than 80% of the population has) and prefer to stay at home. On the other hand, in Austria and Spain the PC at the library often was the first one that people had seen. Another reason can be that we in Sweden at first prevented people from doing “ordinary” surfing on the DERAL PC (all our libraries had another public PC for this): our customers were only allowed to do distance education on the DERAL PC, so we might have been too rigid. When we left this condition and allowed people to learn word-processing programmes, learn how to surf etc. we got a lot more interested beginners, especially older people and young students who came from poor circumstances.

An initiative has recently been taken to build up distance learning centres throughout the country. Sometimes these are located in the public libraries, sometimes in separate buildings. URL: http://www.nitus.org

At the Växjö University a busy work is done with producing distance courses via the net, and ideas have originated to build learning centres around the Kronoberg county. In the Kalmar county these centres have been agreed upon to be placed at the public libraries. (EMILL-project, Effektivt Mediebestånd I det livslånga Lärandet,) http://www.kalmar.regionforbund.se/kultur/klb/index.html.

The Kalmar County Library has started a cooperation with other county libraries and together they build up a homepage similar to the DERAL one, but only for Swedish distance courses of all kinds. URL-address: http://www.folkbildning.se/distans

Another Swedish initiative is the general strategy for adult education that the national librarians´ association (DIK) and the association of the teachers (SLR) has worked out during a workshop in March in Stockholm, where Ms. Kühne was invited to give her opinion about the librarians´ role in this kind of education. This resulted in guidelines for politicians about how to deal with libraries in adult education (DIK-förbundet, 2000).

Austria

Training of librarians to use IT was started with participation in DERAL. The BVÖ produced its “internet for librarians” course which is being distributed in print and via the web to the libraries. Seminars and tutorials for librarians at libraries and State Public Library Offices (Büchereistellen) have accompanied this programme and will be continued. The online training link can be found at http://www.bvoe.at/ik

The participation in the Deral project made Austria’s public libraries reconsider their current position within society. We found out that it is not enough to bring IT to the public libraries and leave the content (online and offline resources for selfstudy) to a later
date. “Bibliotheken online” – a project that makes the collections of public libraries available to anybody who has an internet connection (Webopac) was started in 1999. The URL is: http://www.bibliotheken.at/

When browsing through the library statistics one can see that Austrian public libraries cater primarily for children and have a relatively small and somewhat outdated reference collection. The DERAL gateway of learning resources made the libraries think about cataloguing and indexing resources from the web for their users. The BVOE will maintain the DERALsite in the future. This means the resources will be chosen and administered by BVOE, courses that might become available will be available through this gateway, financing of costed courses will also be administered by BVOE.

DERAL gave us the chance to reconsider the position of Public Libraries within Adult and Continuing Education. Adult Education in Austria itself is reluctant to promote open distance learning. Contact was however established between the BVOE as a representative of public libraries and the Ministry of Education, Science and Culture (as of April 2000, formerly Ministry of Education and Cultural Affairs). Dr. Fritz Rosenberger is the head of the Adult Education division within the ministry. Dr. Rosenberger is again contemplating (first attempt lasted from 1994 to 1997 and consisted of a library and an English language centre which never came into force) the idea of an open learning centre as part of adult education institutes. He showed interest though in considering public libraries as information and learning centres, provided that the librarians will be able to serve as information mongers and tutors to adult clients.

Ireland

In Dublin, the DeLLTTi site (http://www.ucd.ie/delltti) which originates from University College Dublin’s lifelong learning department offers a number of general interest courses. The Dublin partner and University College Dublin have recently worked together with focus groups that have studied two of the courses as part of the project.

There have been a number of developments at a national and local level in Ireland during the course of the DERAL project. Following on from a comprehensive review of the public library system in Ireland, (Branching Out A New Public Library Service 1998) central government have grant aided local authorities to offer free public Internet access in Public Libraries countrywide. The universal availability of free Internet access throughout the library network has raised the possibility that Irish libraries will play a greater role in supporting on-line distance learning in the future. Research carried out by projects such as DERAL has never been more relevant from an Irish point of view particularly in light of the fact that there is evidence of an increased availability from Irish Colleges and Universities of courses on line. More recently the Government’s White Paper on Adult Education (Learning for Life White Paper on Adult Education, 2000) has recognised the important role that libraries have and will continue to play in supporting the education system.

Following analysis of its experience and evaluation of the benefits gained from participation in DERAL, Dublin City Libraries is committed to continuing to develop the DERAL concept at a local level. The experience, for example, of working with University College Dublin on the DeLLTTI on-line courses has reinforced the value to both participating organisations of forging stronger links between libraries and online
education providers. Additionally the feedback from course participants also pointed to the need for more practical support within the library. For example help in offsetting the problems of isolation associated with studying on-line can, in the view of Dublin City Public Libraries, be delivered effectively by maximising on the benefits of inter-organisational cooperation.

The level of staff training derived from DERAL has also proved to be beneficial to a key group of involved staff. As a response to developments at a national level, such as the introduction of free Internet access in all public libraries, and drawing on the lessons of DERAL, Dublin City Libraries have implemented a comprehensive Internet training programme for all staff. In recognition that there is a need for training and support among library users and students as well as staff, an Internet Residency Programme has been introduced at branch level commencing March 2001.
10. Summary and exploitation plan

- **Library management.** In all participating libraries we have had library chiefs or librarians who were amazingly engaged in their work.

- **Political influence.** The political influence has been very varied in the different countries. In some places the librarians have had a very good contact with their local politicians, in others the contact was much less. Where the contact was good the librarians could usually decide for themselves what they wanted to do or what they wanted to buy as long as they kept themselves within their budgets. Where the contact was bad the DERAL project, life-long learning and distance education didn’t seem to be important at all. If the local politicians don’t care about the local library and culture in general, whose responsibility is this?

- If the EU-politicians say that libraries are very important as information centres for people living in sparsely populated areas for instance, and as centres for people who want to participate in distance education and life-long learning, how can it be that local politicians don’t care about what their colleagues at the European level say? How can European politicians implement their ideas at first to national politicians, then to regional and finally to local politicians so that they all pull at same direction? This is a very crucial question for the whole future for the European Union, not only for libraries but for all questions that ordinary people “at the bottom” ask themselves when they see that EU-politicians say one thing and their local politicians something very different!

- **Definition of "courses".** It is necessary to define what we mean by “course”. In Austria for instance a person who has to participate in a course is seen as lacking in ability. If one is good in the job one has the one should not need to change and learn something more or something different. According to the library staff we interviewed the phrase “lifelong learning” is something that has not yet been taken up by ordinary Austrian people,

- **Courses in native languages.** In all libraries the interest from the public has been very high at the beginning but melted away very quickly when the participating “students” realised that sometimes hardly any courses were in their native languages (i.e. mainly people in Austria and Spain). People who are not used to studies don’t choose a course in English as their first try. Spanish and Austrian universities, academies, folk high schools and other adult course providers so far have not been very eager in delivering courses via the net. As two librarians (one from Sweden, one from Austria) said: “I believe that the DERAL project came around two years too early.”

- **Cooperation with course providers.** How can course providers cooperate with public libraries? This is a really crucial question. This must be a question for the national librarians’ associations, to encourage course providers to cooperate with librarians.

- **Costs.** Costs for courses are too high. It was even said that it might still be cheaper in the future to have ordinary courses and transport people to these places than to
produce, test and put in place internet-based courses. However, the U.S. experience shows that with enough users, such courses can be viable, particularly if backed with good tutorial support.

- **Different experiences of the population in the different participating countries.** Some of the librarians meant that ”ordinary” people prefer to participate in courses ”live”. They prefer to go to the neighbour town and follow courses there. Some of the countries are much more densely populated than others. The need for distance courses is therefore perhaps not the same everywhere? On the other side, some librarians said that if there had been enough courses in native languages and on a lower level than university courses it seemed to develop like an avalanche, that more and more people have come. At all places there are many surfing on the Internet now.

- **What the libraries and the librarians have got from the DERAL project.** With few exceptions (see above under political influence) almost all think that the DERAL project has given their libraries benefit in more PCs, more status in the communal hierarchy, less threats for cutting in the budget in the future. Many new people have come to see the internet linked PC:s and have tried them out. In Mistelbach, Austria, for instance between 80 and 100 persons come each month to look for information via the net.

- **About the future.** All participating librarians agree in the belief that the project will survive and spread itself in the future. People have been informed at all places and have shown great interest. Costs must go down, though, and first and mainly more courses in native languages must be provided. Who is going to do that? What can library associations as the umbrella organisations for public libraries do in order to start organising such courses? Do they have a strategy for this?
11. References


Cookson. P. 1990. “Persistence in Distance Education”. In M.G. Moore et al. “Contemporary Issues in American Distance Education”. Pergamon Press, Oxford.


Older and Young (1995). http://www.basic-skills.co.uk/resear.html


**Appendix A: Major demonstration/test sites**

<table>
<thead>
<tr>
<th>Institution/Organisation and name of contact person</th>
<th>City/Town + Postal code</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blankaholm Public Library Anita Swahn</td>
<td>Skolan, Blankaholm 590 91 Hjorted</td>
<td>Sweden</td>
</tr>
<tr>
<td>Borgholm City Library Ulla Petterson</td>
<td>Box 116, 387 22 Borgholm</td>
<td>Sweden</td>
</tr>
<tr>
<td>Emmaboda Public Library Viveca Alfelt</td>
<td>Box 67, 361 21 Emmaboda</td>
<td>Sweden</td>
</tr>
<tr>
<td>Figeholm Public Library Karin Petersson</td>
<td>Marknadsgatan 7, 572 75 Figeholm</td>
<td>Sweden</td>
</tr>
<tr>
<td>Hultsfred Public Library Inger Andersson</td>
<td>Box 503, 577 26 Hultsfred</td>
<td>Sweden</td>
</tr>
<tr>
<td>Ljungbyholm Public Library Thomas Appelqvist</td>
<td>Harbyvägen 3, 388 32 Ljungbyholm</td>
<td>Sweden</td>
</tr>
<tr>
<td>Löttorp Public Library Erik Hedin</td>
<td>Akerboskolan, 380 74 Löttorp</td>
<td>Sweden</td>
</tr>
<tr>
<td>Mönsterås Public Library Petronella Winbladh</td>
<td>383 00 Mönsterås</td>
<td>Sweden</td>
</tr>
<tr>
<td>Nybro City Library Mats Johansson</td>
<td>Box 113, 382 22 Nybro</td>
<td>Sweden</td>
</tr>
<tr>
<td>Vimmerby Public Library Margret Halvardson</td>
<td>Stadshuset, 598 81 Vimmerby</td>
<td>Sweden</td>
</tr>
<tr>
<td>Västervik City Library Kajsa Andersson</td>
<td>Box 342, 593 24 Västervik</td>
<td>Sweden</td>
</tr>
<tr>
<td>Stadtbücherei Wiener Neustadt Robert Mech</td>
<td>2700 Wiener Neustadt</td>
<td>Austria</td>
</tr>
<tr>
<td>Stadtbücherei Ried im Innkreis Karin Mair</td>
<td>4910 Ried im Innkreis</td>
<td>Austria</td>
</tr>
<tr>
<td>Öffentliche Bücherei Zirl Regina Stolze-Witting</td>
<td>6170 Zirl</td>
<td>Austria</td>
</tr>
<tr>
<td>Stadtbücherei Weinvierteler Info-Center OAR Johann Schleritzko</td>
<td>2130 Mistelbach</td>
<td>Austria</td>
</tr>
<tr>
<td>Public Library of Albeda Ester Sabaté</td>
<td></td>
<td></td>
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<tr>
<td>Public Library of Almudévar Belén Peña</td>
<td></td>
<td></td>
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<tr>
<td>Public Library of Monzón Lourdes Satué</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public Library of Tardienta M Carmen Gracia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>Address</td>
<td>Location</td>
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<td>-------------------------------</td>
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</tr>
<tr>
<td>Ballymoney Library</td>
<td>Ballymoney BT53 6JB</td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>Linda Houston</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballee Library</td>
<td>Ballymena BT42 2SX</td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>Linda Houston</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central library</td>
<td>ILAC Centre, Dublin1</td>
<td>Ireland</td>
</tr>
<tr>
<td>Janet Rooney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballyfermot Public Library</td>
<td>Ballyfermot, Dublin 10</td>
<td>Ireland</td>
</tr>
<tr>
<td>Mick Molloy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix B: Work packages

<table>
<thead>
<tr>
<th>WP01</th>
<th>State of the art</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
<td>Investigate the technical possibilities for public libraries in rural areas in the participating countries. Investigate and evaluate experiences and responses of users of existing projects and studies in public libraries, like EARL, MURIEL, ODL, PLIS, and the work from DBC in Denmark</td>
</tr>
<tr>
<td><strong>Responsible</strong></td>
<td>KLB</td>
</tr>
<tr>
<td><strong>Contributors</strong></td>
<td>All partners</td>
</tr>
<tr>
<td><strong>Start/end date</strong></td>
<td>Month 1-3</td>
</tr>
</tbody>
</table>
| **Description** | The main tasks to be carried out are:  
• Investigate the technical possibilities in the participating countries  
• Report on existing Swedish pilots as well as analysing the results of other European projects in public libraries.  
• Evaluate responses of three user types: students, librarians (in their role as intermediaries), and educational providers.  
• Specifying what the various users get/would like to get out of a proposed gateway as a result of the survey  
• Use of educational material, comprising (i) the course itself, (ii) documents available to be downloaded from the provider site, and (iii) material provided within the host library.  
• Administrative role. Analyse tasks undertaken by the public library in its role as the broker between students and providers; for example enrolment, registration, time-tabling, administration of tests or examinations. |
| **Deliverables** | D1.1 Summary of technical possibilities, state of the art, in the five countries (KLB; Month 2)  
D1.2 Report on existing studies (KLB; Month 2)  
D1.3 Report on user responses (KLB; Month 2)  
D1.4 Task analysis for existing system (KLB; Month 3)  
D1.5 Problems/requirements list (KLB; Month 3) |
| **Resources** | 3 Person Months |
**WP02  User requirements (European dimension)**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>This work package surveys the potential end-users of the DERAL gateway to determine what features should be provided.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible</td>
<td>KLB</td>
</tr>
<tr>
<td>Contributors</td>
<td>All partners</td>
</tr>
<tr>
<td>Start/end date</td>
<td>Month 3 - Month 6</td>
</tr>
<tr>
<td>Description</td>
<td>Each of the partners involved in this work package will be responsible for the specification of the tasks to be carried out for the Gateway. The requirements will be captured by considering the view of the Gateway of each of the two user groups. Librarians and members of the public are to be interviewed. Public library staff examine which subject areas seem most in demand for users of public library services. Libraries. Examine what is needed in the public library in order to serve as a distant education site. Localities, collections of books and reference material, opening hours etc. Librarians. Determine the role of the librarian in course administration and delivery of public library service in distance education. Formulate training requirements for librarians depending on their level of expertise with computing technology. Identify end users for a demonstrator course in a public library. Interview representatives of end users in order to determine: (i) The demand for this type of distance education. (ii) The suitability of the particular demonstrator course being proposed. (iii) The level of audience familiarity with computing equipment.</td>
</tr>
</tbody>
</table>
| Deliverables | D2.1 Report on expected role for public librarians in distance education. (KLB, Month 6)  
D2.2 Report on user profiles for target demonstrators. (KLB, Month 6).  
D2.3 Determine the nature of the demand for distance learning and what functions the users and the public libraries need from a Gateway (All partners, Month 6) |
| Resources | 13 Person Months |

**WP03  Inventory of Web-based Learning Resources**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>The output of this work package is a web-based catalogue of distance learning resources, made available over the Internet by universities/university colleges in the five participating countries and geared to national curricula. The catalogue should be designed for public library users and it should be possible to expand it throughout the EU. Conditions of access, language difficulties, licence and other related problems are to be looked at.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible</td>
<td>UU and DCL</td>
</tr>
<tr>
<td>Contributors</td>
<td>input from all</td>
</tr>
<tr>
<td>Start/end date</td>
<td>Month 1 - Month 31</td>
</tr>
</tbody>
</table>
| Description | There are many existing courses already on the Internet, including both internal academic courses, and external courses. This module will provide a wrapper which together with the architectural structure and the library-brokering module in WP 03 will allow uniform access to such courses and to new courses being developed. UU and DCL will together prototype and test a module for Internet courseware which will aid the other partners in provision of the demonstrator modules. Tasks:  
Survey of existing learning resources and their incorporation into a single database of links  
Test resources for suitability with regard to inclusion in the DERAL gateway |
| Deliverables | D3.1 Report on survey (All partners; Month 12)  
D3.2 Report on test results. (All partners, Month 18) |
| Resources | 5½ Person Months |
### WP04  
**Gateway design and prototyping**

**Objectives**
The development of the DERAL gateway, providing a coherent, consistent means of access to the learning resources gathered in WP03. This work package specifies the software and hardware requirements of the gateway, and prototypes its development, taking into account feedback from users at test sites in all the participating regions.

**Responsible**
UU and HDL

**Contributors**
All

**Start/end date**
Month 6 - Month 31

**Description**
The DERAL gateway will be a searchable, hierarchical index to Web-based learning resources. The inventory of resources from WP03 will be categorized and made available in a consistent manner. The gateway will also collect and collate statistics on the use of each package, and provide a forum for the end users to provide feedback on their learning experiences. A multi-language interface will be provided where appropriate, and the facility to locally cache bandwidth-intensive components, such as image and sound files, will also be implemented. System development will follow the prototyping model; that is successive iterations of the development process are employed to progressively refine the system in accordance with user experiences and requests. It is envisaged that within the 24-month timescale of the project, two such iterations will be performed.

**Deliverables**
- D4.1 Technical foundations – provider and user requirements (UU; DCL; KLB, Month 9)
- D4.2 Detailed design document (UU; DCL; HDL, Month 12)
- D4.3 Initial gateway implementation (UU, DCL, HDL, Month 15)
- D4.4 Preliminary evaluation (UU, All, Month 19)
- D4.5 Revised gateway implementation (UU, DCL, HDL Month 22)
- D4.6 Performance review and recommendations for future development (All, Month 24)

**Resources**
12 Person Months

### WP05  
**Trials and evaluation**

**Objectives**
Module to assess results of demonstrator projects.

**Responsible**
UU and HDL

**Contributors**
input from all

**Start/end date**
Month 03 - Month 15

**Description**
Use a standard assessment procedure to evaluate the results of demonstrations.

**Tasks**
- Select Human Interface (Usability) assessment procedure such as *IsoMetrics* [Gediga 96] which enables the collection of usability data for summative and formative evaluation of software systems.
- Supervise test sessions at 31 demonstrator sites. 31 public librarians involved. 13 with KLB, 4 with BVÖ, 10 with HDL, 2 with UU, 2 with DCL. Start month 03
- Analyse results

**Deliverables**
- D5.1 Report on selection of assessment procedure (All partners; Month 08)
- D5.2 Report on test results. (All partners; Month 15)

**Resources**
15 Person Months
### WP06: Security, Copyright and Costs

**Objectives**
Security and copyright issues are central problems to be addressed, especially in regard to distance learning. Different European countries have different laws and practices. This work package will summarize what ECUP, CECUP and TECUP has produced in these matters in trans-European distance-learning schemes. Also the issue of costs must be examined, if a distance learner wants to have access to payable resources. Who pays? License problems could be severe.

**Responsible**
KLB and DCL in cooperation with EBLIDA

**Contributors**
Input from all

**Start/end date**
Month 4 - Month 18

**Description**
- Collecting information about existing copyright practices in participating countries.
- Regard especially copyright issues that concerns distance education.
- Summarize what has been produced so far within the EU.

**Deliverables**
- D6.1 Report on existing practice for copyright in distance learning (All library partners; Month 8)
- D6.2 Recommended Code of Practice taking into account what ECUP, CECUP and TECUP recommends. (All partners; Month 18)
- D6.3 Report on cost and paying problems. (All partners, Month 18)

**Resources**
4 Person Months

### WP07: Training module for librarians using Internet

**Objectives**
To create, further develop and translate a guideline and/or course dealing with professional public librarian issues. As far as use of hardware and software is concerned develop practical methods for public librarians to handle and run the system and empower them to train the eventual end-users. E-mail discussion list for participating librarians. Implement results from project EARL.

**Responsible**
BVÖ

**Contributors**
KLB, DCL; HDL

**Start/end date**
Month 5 - Month 18

**Description**
- BVÖ and KLB will together prototype and test a module for Internet courseware which will be applicable for public librarians education. Through an e-mail discussion list the librarians can discuss and develop practical methods how to handle and run distance courses for the public. Take into account results from PLAIL, MURIEL, PLIS, the Kalmar IT-project, the Swedish DIK-project and others.
- Module: Telematics for public librarians including librarians as tutors for the public

**Deliverables**
- D7.1 Report on module design (BVÖ; Month 5-12)
- D7.2 Demonstrator system (BVÖ; Month 5-18)
- D7.3 Report on user results. (BVÖ; Month 12-18)

**Resources**
17 Person Months
WP08 | Video-conferencing - future-proofing
--- | ---
**Objectives** | Module to work with teleconferencing
This module extends the system with interactivity in order to give the users the possibility of getting in immediate contact with the course-deliverers (teachers, professors), besides having the personal contact with the public librarian at the place as a tutor, and material and other service from the public library.
If the technique in the near future tends to switch to Internet on TV, work with this technique instead.

**Responsible** | KLB and UU
**Contributors** | Input from all
**Start/end date** | Month 7 - Month 21
**Description** | UU and KLB will together prototype and test a module for tele- and videoconferencing.
Tasks
- Port existing KLB software to new system
- Internal testing at UU and DCL, start month 7
- Test across Europe - UU - KLB, start month 12
- Consider alternatives if reports are negative
- Consider reports that tell that people prefer to work from home instead of coming to a public library

**Deliverables** | D8.1 Report new system (KLB, UU; Month 12)
D8.2 Report on test results. (KLB, All partners; Month 21)
**Resources** | 4½ Person Months
<table>
<thead>
<tr>
<th>WP09</th>
<th><strong>Coordination and management</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>Responsible for the project.</td>
</tr>
<tr>
<td>Responsible</td>
<td>KLB</td>
</tr>
<tr>
<td>Contributors</td>
<td>All partners</td>
</tr>
<tr>
<td>Start/end date</td>
<td>Month 1 - Month 31</td>
</tr>
<tr>
<td>Description</td>
<td>The project coordinator will be responsible for the project together with a project manager.</td>
</tr>
<tr>
<td>Tasks</td>
<td></td>
</tr>
<tr>
<td>•</td>
<td>Have the over-all responsibility for the project, including economy</td>
</tr>
<tr>
<td>•</td>
<td>Keep the contact with all participants, discuss results with them and if needed give advice to them</td>
</tr>
<tr>
<td>•</td>
<td>Together with the participants evaluate results and if needed change or suggest new proposals</td>
</tr>
<tr>
<td>•</td>
<td>Prepare project reviews</td>
</tr>
<tr>
<td>•</td>
<td>Be the &quot;link&quot; between the EC and the other participants</td>
</tr>
<tr>
<td>•</td>
<td>Write reports required by the EC</td>
</tr>
<tr>
<td>•</td>
<td>Write the final report and summary</td>
</tr>
<tr>
<td>•</td>
<td>Arrange and report on meetings</td>
</tr>
<tr>
<td>Deliverables</td>
<td></td>
</tr>
<tr>
<td>D9.1</td>
<td>First management report to EC</td>
</tr>
<tr>
<td>D9.2</td>
<td>First periodic progress report to EC</td>
</tr>
<tr>
<td>D9.3</td>
<td>Second management report to EC</td>
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<td>D9.4</td>
<td>Third management report to EC</td>
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<tr>
<td>D9.5</td>
<td>Second periodic progress report to EC</td>
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<td>D9.6</td>
<td>Fourth management report to EC</td>
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<tr>
<td>D9.7</td>
<td>First edited annual public report</td>
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<tr>
<td>D9.8</td>
<td>Fifth management report to EC</td>
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<td>D9.9</td>
<td>Third periodic progress report to EC</td>
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<tr>
<td>D9.10</td>
<td>Sixth management report to EC</td>
</tr>
<tr>
<td>D9.11</td>
<td>Seventh management report to EC</td>
</tr>
<tr>
<td>D9.12</td>
<td>Project review report to EC</td>
</tr>
<tr>
<td>D9.13</td>
<td>Fourth periodic progress report to EC</td>
</tr>
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<td>D9.14</td>
<td>Eighth management report to EC</td>
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<tr>
<td>D9.15</td>
<td>Ninth management report to EC</td>
</tr>
<tr>
<td>D9.16</td>
<td>Fifth periodic progress report to EC</td>
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<tr>
<td>D9.17</td>
<td>Second Annual Report to EC</td>
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<tr>
<td>D9.18</td>
<td>Final project report to EC</td>
</tr>
<tr>
<td>Resources</td>
<td>12 Person Months</td>
</tr>
<tr>
<td>WP 10</td>
<td>Evaluation - Dissemination</td>
</tr>
<tr>
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<tr>
<td>Objectives</td>
<td>Evaluate and disseminate the project process, and the project results including the guideline for public libraries and also the impact on end-users. Coordinate the project Web site</td>
</tr>
<tr>
<td>Responsible</td>
<td>KLB</td>
</tr>
<tr>
<td>Contributors</td>
<td>Input from all</td>
</tr>
<tr>
<td>Start/end date</td>
<td>Month 1 - Month 31</td>
</tr>
<tr>
<td>Description</td>
<td>Make the project known in the library world in order to spread the experiences, guidelines and courses to other public libraries</td>
</tr>
<tr>
<td>Tasks:</td>
<td></td>
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<tr>
<td>• Produce web pages for all participants, incl personal web sites</td>
<td></td>
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<tr>
<td>• Coordinate the project Web sites through the project lifetime</td>
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<tr>
<td>• Write articles in national and international papers, reports, journals</td>
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<tr>
<td>• Take part in different conferences and report the process, taking into account the e.g. PLIS study</td>
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<tr>
<td>• Plan and carry through workshops</td>
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<tr>
<td>• Report on librarians’ experiences</td>
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<tr>
<td>• Report on end users’ (public library visitors, participants in distance learning and others) experiences</td>
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<tr>
<td>• Initiate staff exchanges</td>
<td></td>
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<tr>
<td>• Test the guidelines</td>
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<tr>
<td>• Finish Guidelines</td>
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<tr>
<td>Deliverables</td>
<td>D10.1 Produce web pages and coordinate the project Web sites (UU; all partners; Months 1-24)</td>
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<td>D10.2 Produce articles (All partners; Months 1-24)</td>
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<td></td>
<td>D10.3 Participate in National conferences (All partners; Months 1-24 and if required also later)</td>
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<td></td>
<td>D10.4 First workshop to present findings on state of the art and ideas around architecture for the DERAL gateway (All partners, Month 6)</td>
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<td>D10.5 Participate at IFLA Conference in Amsterdam, September 1998</td>
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<td>D10.6 Second workshop to demonstrate the gateway in operation and present preliminary results of user tests (All partners, Month 18)</td>
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<tr>
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<td>D10.7 Initiate staff exchanges, own workshops, seminars and conferences. All partners, from month 4</td>
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<td></td>
<td>D10.8 Produce the finished guidelines for public libraries (Month 24)</td>
</tr>
<tr>
<td>Resources</td>
<td>9 Person Months</td>
</tr>
</tbody>
</table>