

PART TWO: THE CASE STUDIES

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The choice of case studies

We reviewed a large amount of information before selecting the case studies which were to be studied in greater depth.

Each of the case studies were selected first, on the grounds that there seemed to be interesting lessons to be learned and secondly in the belief that the lessons could realistically be applied to the United Kingdom. We were thus concerned, not only with what was happening within the case study, but also whether there were parallels with what was happening in the UK. We thus considered the cultural, and administrative arrangements as well as the overall level of economic development.

It is clear, however, that there are as many differences as there are similarities and it is therefore necessary to bear in mind things like the federal structures in Australia, Canada, Germany and the USA, as well as the degree of central direction with which the higher education system is administered. We have tried to draw attention to these factors in our descriptions of the case studies.

The large size of the USA, relative to the UK, meant that we were able to select case studies that reflected the differences between collaboration at local, regional and national levels. Thus we selected the Association of Research Libraries as an example of collaboration on a national scale. The Greater Western Library Alliance was selected as a regional example and OhioLINK as an example of local collaboration.

To these, we added the Research Libraries Group. This was initially created by four research libraries on the East coast of the USA. It now has 160 members drawn from Europe, Russia, Africa, Australasia and Japan.

One other large-scale example that we considered was OCLC. This continues to describe itself as a collaborative venture. It now, however, provides services to over 40,000 libraries of all kinds in 76 countries. As such, we felt that it had more in common with a jointly-owned service organisation, albeit a non-profit organisation, and that it would be difficult to translate any lessons to fit the circumstances experienced by research libraries in the UK.

THE COUNCIL OF AUSTRALIAN UNIVERSITY LIBRARIANS

Introduction

The Council of Australian University Librarians has been compared to the Association of Research Libraries in the USA, albeit with a difference of scale. It was formally constituted in 1965 to ensure a common voice and representation for all university libraries. The Council of Australian University Librarians membership comprises the thirty-eight university librarians or library directors of the universities which are members of the Australian Vice-Chancellors' Committee. In 1995, the Council established an office in Canberra.

Aims and Objectives

The Council of Australian University Librarians is: *dedicated to improving access by the students and staff of Australian universities to the scholarly information resources that are fundamental to the advancement of teaching, learning and research.*
(<http://www.caul.edu.au/caul-doc/strpln2001.doc>)

The pressures that led to collaboration

Australia is a large country with a federal system of government. It has a population of only 20 million, which is widely spread, and which represents a small tax base. There are resource constraints in common with most library communities, but this situation is compounded by the low value of the Australian dollar and a high dependence on overseas publications, predominantly from the U.S. and Europe (UK). This has created an environment where Australian university libraries recognise that they can accomplish more by working together than they can individually.

Collaborative activities

Collaborative collection management and development

In the late 1980's and early 1990's there was considerable debate within the Australian library community about the concept of a Distributed National Collection. Helen Hayes, now president of the Council, wrote at the time that the Distributed National Collection was a 'somewhat imperfect, but necessary solution' to the problem of inadequate funding for research level collections (Hayes, 1993).

It is widely accepted that the Distributed National Collection failed to materialise as originally conceived but while the debate has moved on many of the issues remain. Commenting recently, Hayes has suggested that it is still a moot point as to whether there is a need for broad collecting within Australia. She describes the sense of threat arising from publishing monopolies outside the country coupled with a relatively weak currency, which have led some librarians to conclude that a certain level of self-sufficiency is necessary. On the other hand, she also recognises that the priority for individual libraries is to reflect the strategic needs of their institution and that university libraries are therefore free to determine whether or not national collaboration would contribute to their own goals.

The realities of collaborative collection development are complex, even at local level:

The ability to agree on a broad scale is possible and achievable where libraries already have a strong history in particular areas, but in the detail this is quite difficult (Hayes, 2001)

She suggests that a better approach is to look for total access across the university sector whether via document delivery, loan to member institution staff and students or online via a common portal.

National Borrowing Scheme

A national borrowing scheme called 'University Library Australia' was launched in July 2001. Any university student or member of staff may use any other Australian university library as their own.

JANUS

The JANUS Collaborative Information Centres Project was launched in 1999. It proposed that a set of collaborative information centres be established to address the diminishing national financial resources for research information services in Australian universities. The centres were to provide a focus for national collaborative purchasing in their disciplines, and provide one-stop shops for access to research information in those disciplines.

It was based on the theory that resource centres could be established around particular discipline areas such as Agriculture, Philosophy or Chemistry. The resource centres would build on work already begun to provide gateways to both electronic and print information.

Joint licensing

CAUL Electronic Information Resources Committee (CEIRC).

The Council of Australian University Librarians has facilitated consortial purchasing of electronic databases since 1993. Some initial funding was provided by the government, but since then it has been funded primarily from the budgets of the individual members. Initial activities were under the auspices of the Australian Vice-Chancellors' Committee's Database Access Working Group and from 1999 under CEIRC (the CAUL Electronic Information Resources Committee). Since 1995, the day-to-day activities have been run from the Council's Canberra office.

Primarily a Council initiative, it is open to participation from external organisations. Any organisation applying for membership must have teaching and/or research as their primary function and have roles or objectives similar or complementary to those of the Council of Australian University Librarians members or Australian higher education institutions in general.

Programme participants currently include 22 educational and research organisations in Australia, New Zealand and Fiji who are not members of the Council, but who have perceived a number of advantages from joining the programme. It is funded by a levy on members - the 2001 levy is \$1,000 (£350) per calendar year for Council members and \$1,500 (£540) for new participants

CEIRC, the Council's consortial purchasing programme, has current agreements for more than 30 products ranging from major bibliographic databases to large journal aggregations, both single- and multi-publisher, to specialised subject databases. It has facilitated trials for a great many more. Current offers can be monitored on the Council's 'Datasets' website.

Its mode of operation is through guidelines and checklists – for example it has guidelines for licensing but no model licence and a checklist for negotiations but no rules. Its unofficial motto is 'share the information, spread the load'.

Since 1998, CEIRC has freely shared vendor and product information with other potentially interested organisations such as the National Library of Australia, to ensure that each is aware of the Council's consortial activities and the products being examined. Each organisation has an 'observer' on the datasets list.

The Australian Digital Theses Project

The Australian Digital Theses Project is a searchable database of digital versions of theses produced by postgraduate research students at Australian Universities. The project began with a small group of seven libraries with initial funding from the Australian Research Council to design the system and protocols.

It was launched as a Council of Australian University Librarians programme in July 2000 and half the members of the Council are now involved. The National Library of Australia has provided technical input - mainly metadata expertise - from the beginning. The aim of the project is to create a national collaborative distributed database of theses in electronic form. Diane Costello anticipates that all members will be project members in the long term.

Cooperative storage

Cooperative storage of low use books and journals is well established at regional level, for example the CARM Centre (CAVAL Archival and Research Materials) in the state of Victoria. The Centre is a collaborative storage facility operated by CAVAL (Cooperative Action by Victorian Academic Libraries). Its express purpose is to hold single copies only of low use research materials to ensure that good condition copies of tertiary level materials are available for future research and to lower storage costs for the

member libraries. It operates on the principle that member libraries consign ownership of their deposited material to the Centre but gain joint ownership of all the material housed in it.

The Council of Australian University Librarians is involved in developing a business plan to expand this to a national cooperative scheme, using a distributed model. Australian university librarians have accepted that - rather than force a one-location store - a national store can have multiple locations and multiple owners provided that agreed protocols are followed.

The store is a 'last copy' low use research collection available to any university library in Australia within an agreed time frame. Although ownership of the store may reside with a particular university, ownership of the item is ceded to the store.

The benefit falls to all libraries in that larger libraries with space constraints can store an item if it is a last copy, or discard it if the store already owns the copy. Smaller libraries benefit from joint access and ownership of a large low use research collection.

Management and financial arrangements

The Council of Australian University Librarians has an office in Canberra, with an Executive Officer. There is an Executive Committee consisting of a President, Deputy President and three other members. Other members represent the Council on a variety of national bodies.

The Council of Australian University Librarians is financed by member subscriptions.

Success and effectiveness

Effectiveness

Helen Hayes identifies some potential barriers to effective resource sharing:

- Where a programme does not meet the strategic needs of the home institution
- Where the cost benefit is insufficient or diverts resources from core programmes
- Where collaboration would challenge the principles of a library, for example, by reducing access to information
- Where loss of control of an institution's own agenda is a threat

- Where previous history and culture is ignored

JANUS The JANUS project was discontinued after phase I, which was intended to produce a business plan to implement one or more discipline-based 'centres'. The team of consultants was unable to come up with a viable business plan and the steering Committee went back to the drawing board, deciding to look instead at some of the smaller projects which formed part of the Janus network.

Digital Theses Project Access to resources, including the time to have the individual university protocols amended to support electronic submission and publication are causing some universities to postpone their entry into the project.

Successes

Consortial purchasing Obvious benefits for members include advantageous costs - although this often means that prices are rising at a lower rate rather than falling - access to a wider range of full-text journals for little or no more than the current print expenditure, and low-price entry for new subscribers.

Less evident benefits are the centralised activities such as coordination of trials, negotiation of licences and pricing, and the gathering and distribution of product information.

Exchanging information - the 'information flow' - has been identified as a valuable resource in its own right. It is epitomised by an interactive discussion on the Council's 'datasets' list, and the web archive of vendor and product information.

Diane Costello suggests that the key strength of CEIRC is its flexibility.

National Borrowing scheme According to Helen Hayes this succeeded because a small number of universities have been allowed to retain a small enrolment fee where this applied previously - provided that it is the same at all institutions and that students are easily able to follow rules at all participating libraries. It is her view that if the Council of Australian University Librarians had waited for all libraries to abolish a fee, the scheme would not have succeeded. She thinks that all libraries will in the long term move to a free service.

Collaborative Storage The concept of collaborative storage has been a major success and will be adopted by other states following the business plan developed by the Council.

Sources:

COSTELLO, D., 2001. Licensing and consortia, including the National Site Licence. Article for *InCite*. Email attachment to Audrey Marshall, sent 28th October 2001.

COSTELLO, D., 2001. The role of CAUL in consortial publishing. Unpublished draft for the *Journal of Library Administration*. Email attachment to Audrey Marshall, sent 28th October 2001.

HAYES, H., 1993. The Distributed National Collection: a university perspective. *The Australian Library Journal* **42** (1) pp. 8-12.

HAYES, H., 2001. *CAUL*. Unpublished paper. Email attachment to Audrey Marshall, sent 14th November 2001.

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THE NATIONAL LIBRARY OF AUSTRALIA

Introduction

The National Library of Australia is one of the key bodies spearheading collaborative activity nationally in Australia. The National Library of Australia was established in 1901 as the Commonwealth Parliamentary Library. In 1960 the Library officially separated from the Parliamentary Library with the passing in Parliament of the National Library Act in 1960, and the present building opened in 1968. The Library is a statutory authority within the Australian Department of Communications, Information Technology and the Arts, and is funded by the Australian government

Aims and Objectives

The National Library of Australia 'facilitate[s] the sharing of collections in Australian libraries and foster[s] the development of the Australian library and information network' (<http://www.nla.gov.au/library/directions.html>).

The pressures that led to collaboration

Australia is a large country with a federal system of government. It has a population of only 20 million, which is widely spread, and which represents a small tax base. Collaboration is seen as essential in this geographical and political context.

The state libraries in Australia hold key historical collections and are funded by their respective State governments. They also support the local government funded public libraries within individual states. Community and research access to the collections of local, State and National libraries is vitally important.

The small market size of Australian libraries means that they do not represent a significant business for large multinational publishers, which makes consortial purchasing vital.

Collaborative activities

Collaborative collection management and development

In the late 1980's and early 1990's there was a definite push within the Australian library community to make the concept of a Distributed National Collection a reality. It became a key issue for the Australian Council of Libraries and Information Services and was defined as:

The aggregation of all collections in Australia which are recorded in generally accessible databases and are accessible, either in person or via inter-library document supply, to users with bona fide reasons for access. The Distributed National Collection is comprehensive in relation to Australiana and selective in relation to the rest of the world as present and future needs of Australia require. (Bower, 1991)

However, the Distributed National Collection failed to materialise and several reasons have been put forward for this. Cliff Law, while he was Director of the Coordination Support Branch at the National Library of Australia cites an over-emphasis on building the tools:

Certainly Australia put considerable effort into build[ing] the tools for cooperation, but the area of defining (and funding) collecting roles of individual and groups of libraries within a national system was never realised. (Law, 2000)

Little progress was made towards developing any cross-sectoral library mechanisms to drive the coordination of library collections, nor was a policy and funding framework ever developed to bring the concept into practice. The lack of central strategic funding and support was compounded by a move toward a more competitive model of higher education as a means to increase efficiency.

The changing nature of information itself also had a bearing on the outcome. Byrne (1997) felt that librarians and scholars had 'failed to reinvent' the concept of the Distributed National Collection in

the electronic age, and that they continued to envisage it in terms of an aggregation of printed materials. The advent of electronic services brought a realisation that Australian libraries did not have to only rely on one another for sources of external supply.

Australian Council on Library and Information Services itself was wound up in 1998 and the emphasis switched from building a Distributed National Collection to resource sharing, with the National Library of Australia spearheading a number of initiatives.

Bibliographic access

Kinetica

The National Library manages the National Bibliographic Database provided until 1997 by the Australian Bibliographic Network. The software was replaced in 1998-1999 and the new service providing access to the database and a number of other databases is known as Kinetica. Kinetica includes a web search facility, a cataloguing client, and interlibrary loans requesting and payment modules. Kinetica is used by 1,400 Australian libraries and provides 33 million locations for over 12 million items held in Australian library collections.

The databases Kinetica offers access to are:

- *National Bibliographic Database* Contains records of print and electronic resources held in Australian libraries in all formats.
- *Australian National Chinese Japanese Korean Service* Contains records of Chinese, Japanese and Korean materials held in Australian libraries.
- *Research Libraries Information Network* the Research Libraries Information Network based in the United States.
- *Te Puna* The National Library of New Zealand's national database.

Generally speaking, members of the public do not have access to Kinetica, although some university libraries have made it available to undergraduate and post-graduate students and researchers. It is available to libraries and individual researchers on either a subscription or a transaction basis.

The Australian Libraries Gateway

The National Library of Australia has developed the Australian Libraries Gateway on behalf of the Australian library community and it received initial funding as part of Australia's Cultural

Network, a central Government initiative. It was established in March 1998, with the aim of being a directory of current information about every library in Australia - a 'one-stop-shop' for Australian libraries. The Gateway allows libraries to provide a direct link to their key policy documents, including collection development policies. Summary details are given of a library's particular strengths as well as links to the full documents themselves.

Via the website (<http://www.nla.gov.au/libraries/path.html>) users are offered different entry routes from a search and browse screen to take them, for example, to 'Key collections of Australiana' or 'Digital theses'. Users can explore individual library sites to find out about the library's collection, location and services or to interrogate the library catalogue directly.

Each Australian Libraries Gateway library has a password to update and amend the information about itself via the web. There are no charges associated with listing a library on the Gateway, nor any obligation on the listed libraries to provide any additional services to users of the Gateway.

The Gateway also links to other existing Australian library directories, for example the *Register of Australian Archives and Manuscripts*, *Australia's Oral History Collections: a national directory* and various image databases.

PictureAustralia

The PictureAustralia service has attracted a number of library and other partners. It provides web access to the online image collections of a number of Australian cultural organisations. The service has won a national award, and has been used as a model by at least one overseas national library.

Collecting Agreements

The National Library of Australia encourages libraries to notify them about co-operative Collecting Agreements. The website lists thirty-six such agreements, many of them between the National Library of Australia and other libraries with significant collections and many of them relating to non- Australian collections.

Joint Licensing of electronic resources

Council of Australian State Libraries Consortium

The National Library of Australia is involved in the Council of Australian State Libraries Consortium and is providing funding for the first three years. The Consortium was established in March 2001 for the purpose of acquiring cost-effective access to commercial electronic information resources. Other Consortium members include all the state and territory libraries and two public library services, the ultimate aim being to include all Australian public, State, Territory and National libraries. The major objectives are to increase the negotiating power of the members in order to achieve the best licensing agreements and pricing discounts.

The Consortia and Licensing Working Group undertakes the work of the Consortium and a manager carries out the day to day administration. Council of Australian State Libraries has appointed the National Library as lead negotiator and it negotiates and signs agreements on behalf of other members.

Preservation and Retention

PANDORA

The PANDORA (Preserving and Accessing Networked Documentary Resources) Project has developed policy, guidelines and procedures for the preservation and provision of access to Australian online digital publications. It is also an archive of online publications.

PANDORA began, in 1996, with a recognition of the fact that the preservation of all significant Australian Internet publications is beyond the capability of a single agency and that cooperative efforts among the traditional deposit libraries is essential. The full partners in PANDORA are the State Libraries of New South Wales, South Australia and Victoria, the Library and Information Service of Western Australia, the Library and Information Service of the Northern Territory and ScreenSound Australia. They select, catalogue and archive publications in their areas of interest.

The national model consists of a network of distributed archives, with each of the National and State libraries working to an agreed set of principles and actions, and gathering the titles for which they accept responsibility into either the PANDORA Archive or an

archive maintained within their own institution. While each library may employ different internal procedures and technical platforms, the basic components of the national model are:

- A set of collection agreements which delineate the areas in which each participating library will take responsibility for archiving Australian online titles
- Commitment from each participating agency to catalogue all titles selected for archiving onto the National Bibliographic Database, which will be one of the principle means of access to the national collection of Australian electronic publications.
- Commitment from each participating agency to undertake the necessary steps to ensure long term preservation of the titles for which it has accepted responsibility.
- Agreement from all participants to negotiate arrangements with publishers that will ultimately ensure open, networked and gratis access to titles in the archive.

The Australian Electronic Unit was set up in April 1996 to develop policy and procedures for the management of online publications in the PANDORA Archive. The Unit identifies and selects titles, catalogues them onto the National Bibliographic Database, liaises with publishers, and archives selected titles. Detailed procedures for handling online publications have been documented in a manual which is available online.

The archive itself is accessible to users via the National Library of Australia website, where there is a search and browse interface (<http://pandora.nla.gov.au/index.html>). Subject headings include Art & Humanities; Indigenous Peoples; Science & Technology; and Sports & Recreation. A browse through material related to the 2000 Olympics showed that sites relevant to future researchers had already been removed by the original publishers but preserved in PANDORA.

PADI

PADI (Preserving Access to Digital Material) is an international initiative spearheaded by the National Library of Australia which serves to share information about preserving access to digital materials. The PADI initiative aims to provide mechanisms that will help to ensure that information in digital form is managed with appropriate consideration for preservation and future access. Its objectives are:

- to facilitate the development of strategies and guidelines for the preservation of access to digital information
- to develop and maintain a web site for information and promotion purposes;
- to actively identify and promote relevant activities
- to provide a forum for cross-sectoral cooperation on activities promoting the preservation of access to digital information.

The PADI website is a subject gateway to digital preservation resources. It has an associated discussion list for the exchange of news and ideas about digital preservation issues. An international advisory group has been established to provide advice and guidance for the PADI initiative and there have been recent discussions between PADI and representatives of the UK's DNER about the Digital Preservation Coalition.

Australian Cooperative Digitisation Project

The Australian Cooperative Digitisation Project is a collaborative initiative for the digitisation of print materials. Also known as Ferguson 1840-45, its partners are the University of Sydney Library, the State Library of New South Wales, the National Library of Australia and Monash University Library, supported by ten other institutional and industry groups. It is the first project of its kind in Australia and its overall objective is to create a research infrastructure in Australian studies through the digital conversion of serials and fiction of the period 1840-1845, which was seminal in Australian history. It aims to ensure access to and preservation of material by a process of microfilming, scanning and networking.

Inter-lending

Interlibrary Resource Sharing

According to the Manager of Research at the Coordination Support Branch of the National Library of Australia, most libraries in Australia participate to some degree in interlibrary loans and document delivery, as a requester or supplier or both. In 1999, the National Library convened the National Resource Sharing Working Group to investigate and recommend improvements to ILL nationally and in January 2001, the group launched the Inter-Library Resource Sharing Code (NRSWG, 2001).

The National Library of Australia hosts the Code, which emphasises cooperation and fairness between libraries as well as

respect for the rights of creators and publishers. Although the Code is voluntary all libraries participating in resource sharing are encouraged to operate under its principles and implement the service level standards.

Libraries can register their interlibrary loans and document delivery intentions, lending policy and charges in the Interlibrary Resource Sharing Directory. The Directory also lists organisations such as art galleries, museums, historical societies and commercial services and it contains entries for some overseas libraries, mainly New Zealand. Each entry within the Australian Inter Library Resource Sharing Directory includes the name, address and contact details for the interlibrary lending or document delivery service. For libraries, the Directory lists their interlibrary loans policies, any special conditions which might apply, charging policy and what service levels - Rush, Priority, Express - are provided.

The National Resource Sharing Working Group recognises that resource sharing is important in meeting the needs of library users but believes that it should not be a substitute for the purchase of library materials to meet the primary needs of its users. The purpose of resource sharing is to obtain those materials that a library cannot purchase because they fall outside the scope of the library's collection development policy. The Working Group has recently completed a major benchmarking survey of interlibrary lending in Australia, which provides crucial information to assist libraries improve their inter-library loan performance.

It has been suggested that the changing nature of library collections and the move to an electronic environment means that many libraries now send their inter-library loan requests not just to other Australian libraries but also to commercial document supplier and overseas libraries including the British Library, OCLC and CISTI.

Management and financial arrangements

The National Library of Australia is divided into six divisions: Collections Management; Australian Collections & Reader Services; Resource Sharing; Information Technology; Public Programmes; and Corporate Services. The Resource Sharing Division has responsibility for Kinetica, the Australian Libraries Gateway and Inter-lending. Preservation is the responsibility of the Preservation

Services Branch, within Collections Management. The Coordination Support Branch, within Corporate Services, has a particular remit to foster collaboration via national and international projects.

The National Library of Australia is funded primarily by the Department of the Communications, Information Technology and the Arts. Its budget for 2001-2002 is \$Aus 208 million (£75 million).

It does receive funding from other sources, and Kinetica - for example - is run on a cost-recovery basis, via subscription from the State Libraries, University Libraries, special and small libraries.

Success and effectiveness

Effectiveness

Kinetica. Most university libraries support the continuation of the National Bibliographic Database in principle. In practice, however, some members are now using OCLC either in addition to Kinetica or as a replacement for it for cataloguing copy. University library participation is seen as very important to the success of the NBD and Kinetica, because of the resources held by the universities.

Collection agreements. These are few in number and appear to have had little or no impact on collecting patterns (Byrne, 1997)

Successes

The National Library undertook a progress review of Kinetica in 2000 (National Library of Australia, 2001) which found a high level of participation in and satisfaction with Kinetica among Australian libraries. It suggests that 'academics view an effective resource sharing system as an essential element of their research and teaching role'.

The National Resource Sharing Working Group has been a successful collaboration. The revised Interlending Resource Sharing Code is used by most libraries in Australia. The recently completed Interlibrary Loan/Document Delivery Benchmarking Study has identified key success factors for ILL services which will assist libraries to improve their document delivery performance.

The Library has put forward the PANDORA project as a national model to provide distributed access to Australian digital publications. A number of State Libraries and Screensound Australia (the national film and sound archive) have joined PANDORA or implemented a similar State-based model.

Both PANDORA and PADI have provided the National Library with sufficient experience to comment on and influence international developments in these areas.

PictureAustralia is one of the most visible collaborative projects the Library has undertaken in recent years. It has won a national award, and has been used as a model overseas.

Conclusion

The size of Australia and its geopolitical nature, while marking it as different from the UK, also means that effective collaboration is a necessity. There is, therefore, a wealth of experience and expertise in a variety of collaborative activities. There are particular lessons to be learnt from the failure to realise a Distributed National Collection, which are directly applicable to the UK. Specifically, the concentration of building tools at the expense of securing agreement to the underlying principles of collaboration meant that the scheme did not have sufficient backing from participating librarians who perceived it as being driven by the National Library. Neither did it have the backing of the Vice-Chancellors who ultimately controlled the budgets.

Useful comparisons can be made in other areas, such as the Australian Libraries Gateway, Kinetica, the work of the National Resource Sharing Working Group and PANDORA. The National Library of Australia is demonstrating considerable commitment to collaboration, innovative approaches and a desire to be included in the international arena.

Sources:

BOWER, G., 1991. Library cooperation: the Australian Council of Libraries and Information Services. *Australian Academic and Research Libraries* **22** (4) pp. 31-36

BYRNE, A. 1997. *After the DNC: establishing a sustainable information environment for research and scholarship in Australia*. National Scholarly Communications Forum. Round Table No. 7. The Distributed National Collection.
<http://www.caul.edu.au/nscf/byrne.htm>

CAMPBELL, D., 2001. *Brief overview of national collaborative activities, with a particular focus on the National Library of Australia*. Email attachment to Margaret Wallis, sent 11th September 2001.

LAW, C., 2000. *DNC in Australia*. Email to Margaret Wallis, sent 28th March 2000

NATIONAL LIBRARY OF AUSTRALIA., 2001. *Progress Review of Kinetica: Australia's library network*. Canberra: NLA
<http://www.nla.gov.au/kinetica/ProgressReview.html>

NATIONAL RESOURCE SHARING WORKING GROUP, 2001. *Australian InterLibrary Resource Sharing Code*. Canberra: NLA.
<http://www.nla.gov.au/initiatives/ilrscodex/index.html>

NATIONAL RESOURCE SHARING WORKING GROUP, 2001. *Interlibrary Loan/Document Delivery Benchmarking Study*. Canberra: NLA.
<http://www.nla.gov.au/initiatives/nrswg/benchmarking.html> [to be published on the website December 2001]

Websites:

Australian Interlibrary Resource Sharing Directory -
<http://www.nla.gov.au/ilrs/>

Australian Libraries Gateway - <http://www.nla.gov.au/libraries>

Kinetica - <http://www.nla.gov.au/kinetica/>

National Library of Australia - <http://www.nla.gov.au>

PADI - <http://www.nla.gov.au/padi/>

PANDORA - <http://pandora.nla.gov.au/index.html>

Picture Australia - <http://www.pictureaustralia.org>

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CANADIAN NATIONAL SITE LICENSING PROJECT

Introduction

In April 1999 the University of Ottawa submitted a proposal to the Canadian Foundation for Innovation for \$20million (£8 million) to establish the Canadian Site Licensing Project.

The Canadian National Site Licensing Project is a consortium of 64 universities across Canada aimed at bolstering the national capacity for research and innovation. It was originally set up to secure licences for electronic journals primarily in science, engineering, health and the environment and to provide electronic desktop access to this content for academic researchers.

Aims and Objectives

In a strategy meeting held in September 2001 the Canadian National Site Licensing Project defined its core purpose 'to increase the capacity for research and innovation in Canada.'

Its mission is 'to expand the universe of digital research information available to Canada's academic research community, through the co-ordinated services and expertise of academic libraries.'

More broadly it seeks to increase the quantity, breadth and depth of scholarly publications available to Canadian academic researchers, speed the take-up of electronic publication formats, and leverage Canadian universities' buying power and influence in the international scholarly publishing marketplace.

The specific objectives of the Canadian National Site Licensing Project are:

- To license electronic versions of scholarly journals and research databases in science, health, engineering, and the environment, and to provide electronic desktop access to this content for the academic community.

- To foster innovation through increased capacity to connect researchers with global information repositories;
- To support an internationally competitive Canadian academic research community;
- To increase the return on public investment in research resources;
- To bolster the national capacity for research output.

By adopting a national strategy for securing access and usage rights to primary electronic journals and databases, this project will also help institutions:

- To aggregate their buying power and influence in the marketplace;
- To secure access to an expanded body of published research, at lower cost than could be achieved through institution-specific or regionally based licences;
- To achieve greater stability of access in the volatile area of electronic publishing;
- To mitigate financial risks associated with large-scale transformation to new models of scholarly communication.

Recognising the complementary roles played by researchers, libraries and publishers in the area of scholarly communication, the project is also expected to provide long-term benefits to all parties by:

- providing a testbed for research and development of new publishing, business and access models;
- providing opportunities for authors and publishers to expand distribution and increase use of their publications within the Canadian academic community.

The pressures that led to collaboration

The original impetus for the Canadian National Site Licensing Project was the pressures affecting libraries everywhere.

- A decade of double-digit price increases from publishers,
- The proliferation of the number and volume of publications,
- Rapid technological innovations in electronic publishing,

However to these were added new factors.

In recent years, Canadian libraries have entered into site licensing arrangements with publishers and vendors of electronic scholarly journals for access at individual institutions. In an effort to secure better prices, a more extensive range of content, and the most advantageous usage terms, libraries have increasingly negotiated licences at the provincial and regional levels, through multi-institutional consortia.

The Canadian National Site Licensing Project took this one step further to the national level. The Canadian academic market for electronic publications is small – comparable in size to the State of California and it was essential to aggregate negotiations and buying power to achieve lower unit costs.

The Canadian National Site Licensing Project was seen to provide the foundation for the development of national strategies for digital library services. 'An inexorable shift from the traditional print journal system to a digital environment.' (Canadian National Site Licensing Project Project Proposal 1999)

The Canadian Foundation for Innovation grant provided the catalyst to collaborate nationally.

Joint licensing

In its first year of operation, the Canadian National Site Licensing Project pioneered a competitive Request for Proposal process for publishers of electronic scholarly content that culminated in multi-year licences with seven major scholarly publishers, with access to more than 700 specialized electronic journals and research databases in scientific and technical disciplines.

The Canadian National Site Licensing Project has also developed a model licence agreement for use with publishers, which secures content usage rights for the Canadian academic community.

Management and financial arrangements

The project funding from the Canada Foundation for Innovation comes from the Institutional Innovation Fund. The \$20 million (£8 million) grant covers approximately 40 percent of the cost of the Canadian National Site Licensing Project, with the remaining \$30

million (£12 million) coming from regional or provincial partners and the 64 participating institutions. It is a three-year pilot project.

A condition of the Canada Foundation for Innovation funding is that project participants are committed to sustaining the project beyond the termination of Canada Foundation for Innovation seed funding.

The Canadian Foundation for Innovation is a corporation established by the Canadian federal government in 1997. Its mandate is 'to promote innovation by investing in research infrastructure at Canadian universities, colleges and other institutions, thereby increasing their capability to carry out world-class research and development in the areas of science, health, engineering and the environment.'

The Canadian National Site Licensing Project is administered from the University of Ottawa with a full-time Executive Director Deb deBruijn, supported by a Steering Committee

Success and effectiveness

Effectiveness

- The project is for a three year period only and further funding has to be secured to ensure its survival
- There is consensus that the Canadian National Site Licensing Project will continue with a national strategy for all-inclusive licensing for academic institutions, but with new cost-sharing models that recognise programme diversity and institutional size
- The length of time it takes to negotiate with publishers
- The Request for Proposals is geared toward bigger publishers
- The librarian mindset – library-centred model – and a lack of willingness to suspend traditional approaches
- Scholarly publishing models that bypass libraries and journals

Successes

- The \$50million (£21 million) funding for the project
- National and international recognition. The Canadian National Site Licensing Project) has won National First Prize in the 2001 Quality and Productivity Awards Program of the Canadian Association of University Business Officers
- The involvement of all 64 universities

- The development of the Model Licence
- The Request For Proposals process is controlled by the Canadian National Site Licensing Project

Sources:

NASH, A. Canadian National Site Licensing Project (CNSLP) Strategy Session September 12-13 2001 *As was said session report* (<http://www.uottawa.ca/library/cnslp/docs/awsr-sept12.pdf>)

UNIVERSITY OF OTTAWA Canada Foundation for Innovation Project Description and Assessment (<http://www.uottawa.ca/library/cnslp/cfi/propo-e.htm>)

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DEUTSCHE FORSCHUNGSGEMEINSCHAFT

Introduction

Deutsche Forschungsgemeinschaft is the central public funding organisation for academic research in Germany. It is directly comparable to a British research council, although it covers the whole subject range.

The mandate of the Deutsche Forschungsgemeinschaft mandate is to serve science and the arts in all fields by supporting research carried out in universities and public research institutions in Germany; to promote cooperation between scientists; to forge and support links between German academic science and industry, and with partners in foreign countries.

To support the German research effort, it has established a system of subject specialisation among German university libraries, known as the Sondersammelgebietenbibliotheken. This is part of a wider programme of financial support that aims to improve the information infrastructure for research. The system of subject specialisation also reflects a general philosophy within the Deutsche Forschungsgemeinschaft that encourages subject specialisation and the development of centres of excellence.

Aims and Objectives

The overall aim of the Sondersammelgebietenbibliotheken is to enable 40 designated university libraries to play a national role in addition to their local function that is supported by the parent institution. Across the country as a whole, the Sondersammelgebietenbibliotheken contain over 120 special subject collections that, collectively, cover all subject areas.

The libraries receive additional funding to enable them to collect material in depth within their designated subject area; to maintain and develop the collections and to provide an inter-library loan service. The subject specialisation scheme is built upon existing strengths within the universities and the funding from the

Deutsche Forschungsgemeinschaft is mainly intended to cover the additional costs of acquiring non-German material.

A service called WEBIS (**WEB**-based **B**ibliotheks**I**nformations**S**ystem) provides a guide to the scheme, enabling researchers to direct their requests to the most appropriate library. Material is then made available through the inter-library loan system. Various steps are being taken to develop electronic document delivery.

In addition to the Sondersammelgebietenbibliotheken, the Deutsche Forschungsgemeinschaft supports a range of other initiatives designed to strengthen the system's capacity to support research. It funds research and development projects among libraries that aim to test innovative technologies and solutions. It is, for example, supporting a range of projects that aim to develop electronic document delivery services.

The pressures that led to collaboration

The Deutsche Forschungsgemeinschaft was established in 1949 as part of the programme to re-build Germany after the Second World War. In fact, it was a revival of a comparable organisation, with similar functions, that was first established in 1920 but which was closed down in 1933. As such, the modern version represents an attempt to ensure that German researchers were able to maintain contact with international developments in research. As time has gone on, and as the volume of research information has grown, the perceived need for the scheme has also grown.

Collaborative activities

Collaborative collection management and development

This is the main thrust of the Deutsche Forschungsgemeinschaft's collaborative activity. They now have a very well-established network of subject specialist libraries. 40 universities together house over 120 special collections. The Deutsche Forschungsgemeinschaft's funds are mainly directed towards the additional costs that would be associated with collecting relatively esoteric non-German material within the given subjects. In other words, they cover the marginal costs of building and maintaining national special collections.

Joint Licensing

There does not yet seem to be much evidence of the Deutsche Forschungsgemeinschaft undertaking joint licensing activities on behalf of the wider research library community.

Access and Inter-library lending

An inter-library loan service has developed to enable researchers working outside the designated institutions to borrow material. This, however, has proved to be slower than many researchers require and a rapid, but more expensive, service has been set up to deliver materials direct to the users. The key to this is the WEBIS service (wwwsub.sub.uni-hamburg.de/ssg/text/was_ist_webis.html). Various projects are exploring electronic document delivery.

Management and financial arrangements

The scheme is administered as part of the overall management structure of the Deutsche Forschungsgemeinschaft. A library committee and sub-committees, consisting of representatives of a range of libraries and academic institutions support the planning, coordination, expert appraisal and control of projects and programmes. The budget for 2000 was DM 52 million (£16.7 million).

Success and effectiveness

Effectiveness

- The strong focus on collaborative collection management and development has possibly inhibited the development of other forms of collaboration, such as joint licensing of digital material and preservation.

Successes

- The scheme has been in operation in its current form for over 50 years. During that time, the specialist collections have developed considerable strengths.

- The scheme fits well with both the German federal structure and the Deutsche Forschungsgemeinschaft's practice of developing centres of excellence.
- The Deutsche Forschungsgemeinschaft is funding what appears to be innovative research and development into electronic document delivery.

Sources:

ENDERLE, W., 1996. Shared digital collection development: the first steps to the virtual library. *LIBER Quarterly* **6** pp. 367-382.

KYRILLIDOU, M., 1999. New collections: new marketplace relationships. *Resource Sharing and Information Networks* **14** (1) pp. 61-75.

LEHMANN, K-D., 1995. The information highway and the cultural heritage: thoughts on a concept for Die Deutsche Bibliothek. *LIBER Quarterly* **5** pp. 431-439.

LEHMANN, K-D., 1996. Die Deutsche Bibliothek as competence centre. *LIBER Quarterly* **6** pp. 262-269.

RATCLIFFE, F. W., 1995. German acquisitions policies: library problems before and after reunification. *Focus* **26** (3) pp. 135-146.

RUSCH-FEJA, D., 1998. A virtual national library of education? German libraries cooperate to support education. *INSPEL* **32** (4) pp. 243-261.

ZICK, W 1999a Electronic document delivery in the Federal republic of Germany. *In: Study on international sharing of Japanese scholarly information.* NACSIS 169-174

ZICK, W 1999b German projects related to digital libraries. *In: Study on international sharing of Japanese scholarly information.* NACSIS 181-187

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KONINKLIJKE BIBLIOTHEEK - THE NETHERLANDS

Introduction

The Koninklijke Bibliotheek has a range of national responsibilities. To this end, it works with other libraries, particularly the research libraries in the country's 13 universities. The Koninklijke Bibliotheek thus provides leadership and a fairly high degree of coordination within an, admittedly, small country.

Aims and Objectives

The overall aim of the Koninklijke Bibliotheek, in terms of its coordination activities is to contribute to innovation in scientific information services and to promote national and international cooperation by undertaking coordination and by offering policy and official support. Through this work the Library has become an expert centre in digitisation, preservation and restoration, coordinated collection development and, to a rather more limited extent, joint licensing of digital material.

The work involves activities in a number of areas:

- General support for library cooperation through *UKB - the Consortium of University Libraries*
- National collection management, working through the *UKB Committee for National Collection Management (CvC)*
- Joint licensing of commercial electronic publications
- An electronic academic library through, initially through *DELTA - the Dutch Electronic Library technology Association*. DELTA never fully got off the ground. Retro-digitisation plans are being developed in the UKB consortium and the SURF foundation (Dutch academic research network). This work is still at an early stage

- Digitisation, including the project *The memory of the Netherlands*
- Gateway to Internet resources, though *DutchESS - Dutch Electronic Subject Service*
- Preservation, including the project *Metamorfoze*
- Joint subject indexing: co-ordinated joint subject indexing on a national scale

The pressures that led to collaboration

There has been a long tradition of cooperation in the provision and development of library services within the Netherlands. Since the 1980s the pressure to work collaboratively has grown as a result of stagnant or declining budgets, coupled with a growth in the volume and range of information materials that are becoming available. Between 1980 and 1990, for example, the number of volumes added to stock by the 13 university libraries fell by 30-50 per cent, despite an increase of 28 per cent in the acquisitions budget.

There has been a recognition that digital information technology offers the potential to overcome some of the problems being experienced by Dutch research libraries and they have worked together to exploit the potential.

Collaborative activities

Collaborative collection management and development

The collaborative collection management activities began to develop in 1993. At that time there was agreement about the need to work together to ensure that, across the country, collections were optimised, largely through improving the quality of the library service by broadening and deepening the range of research materials that are available collectively.

The starting point was a thorough collection-mapping exercise based on *Conspectus*. This identified the strengths and weaknesses of the different collections. In 1996, following a research project undertaken by the Koninklijke Bibliotheek, which

assessed the coverage of foreign-language humanities materials, five universities (Leiden, Groningen, Utrecht, Amsterdam and Nijmegen) agreed to work together to maintain the national supply of materials to support humanities studies. Subsequently the work was extended to include the Free University of Amsterdam and the Koninklijke Bibliotheek and this led to the award of 5 million guilders (£1.4 million) during 1998-99 to strengthen the collections. For the next three years (October 2001 – October 2004) the Netherlands Research Organisation (NWO) will provide 5.5 million guilders (£1.6 million); the seven participating libraries have to add 1.5 million guilders (£425,000) themselves. The Koninklijke Bibliotheek is a participant, but also co-ordinator and monitor.

More recently the consortium of research libraries (UKB) has established a new Committee on National Collection Management, under the umbrella of the UKB consortium. It replaces the old steering group, the (CvC) and users council. Members are from all UKB members (mainly university libraries) with the Koninklijke Bibliotheek facilitating. A growing number of university libraries have revised their collection and collecting profiles and these are now being mounted on the CvC website with the result that university librarians have been able to rationalise their periodical subscriptions by reducing the overall level of duplication. A previous system, whereby the CvC maintained a central register of periodical subscriptions that were being considered for cancellation was abandoned in 2000 - 'for practical reasons'.

Joint Licensing

The joint licensing activity grew out of the work on collaborative collection development. At present it is at an early stage, being discussed within the UKB - the consortium of university libraries. The Koninklijke Bibliotheek is playing only a moderate role in licensing matters. The main activity is in the UKB (committee on publisher relations) and SURFdiensten (commercial services, related to Foundation SURF). The Koninklijke Bibliotheek is, however, making an inventory of licensing needs for the group of humanities libraries, in the framework of the NWO project.

In 1997 the research libraries in the Netherlands joined with their counterparts in Germany to establish a set of guiding principles for negotiating collective licences for digital information

(<http://cwis.kub.nl/~dbi/english/license/licprinc.htm>). The intention now is to develop this further.

In 1998 the Koninklijke Bibliotheek, along with a number of university libraries and Pica (the not-for-profit Dutch library automation company) established DELTA - the Dutch Electronic Library Technology Association to explore the issues associated with the development of an electronic research library. This is still at the developmental stage but the implementation of the plan is now thought to be most unlikely.

Bibliographic access and Inter-library lending

The Netherlands has a well-developed system of shared automated cataloguing based on the Pica system which has been operational since 1978. This provides the basis for a de-centralised inter-library lending system. There is, therefore, little need for specific collaboration among the research libraries.

The Koninklijke Bibliotheek has, however, established a gateway to electronic resources. This has been carried out in conjunction with seven university libraries and it operates under the name of DutchESS - the Dutch Electronic Subject Service. It is aimed specifically at the academic community and was originally created in 1993 as a local gopher service before being transferred to the World Wide Web. The DutchESS service was launched in 1997 (<http://www.kb.nl/dutchess/>). The service now provides a key to 5,500 Internet sources of academic value. The Koninklijke Bibliotheek coordinates the collaborative efforts of the university libraries and provides the necessary technical support.

Preservation and retention

The main preservation activity focuses on Metamorfoze. This is a national programme for the preservation of material produced between 1840 and 1950. The programme includes the microfilming of 42,000 books in the Koninklijke Bibliotheek and in the libraries of the universities of Amsterdam and Utrecht. The monograph microfilming programme will be completed by the end of 2001. During 2001 the programme for microfilming newspapers will begin.

Attention is shifting to the digitisation of the microfilm images. The Dutch government has made available 20 million guilders over the period 2001-2004. These resources will be used to preserve and partially digitise literary, cultural-historical and internationally valued collections, Dutch monographs and general interest magazines.

The Koninklijke Bibliotheek has set up a national digitisation programme called Memory of the Netherlands. This holds a digital copy of material relevant to the history and culture of the Netherlands. It should become available in 2002.

Management and financial arrangements

The various collaborative activities are managed within the overall structure of the Koninklijke Bibliotheek. The work is overseen by Drs. Gerard van Trier, Corporate Secretary and Head, Policy Department of the Koninklijke Bibliotheek.

Success and effectiveness

Effectiveness

- There is discussion about the DutchESS approach, which is rather time-consuming. The Koninklijke Bibliotheek is looking for instruments to stimulate the efforts of the participants to contribute to the database.
- The DELTA project, which aimed to explore the scope for an electronic library, is not expected to achieve concrete results.

Successes

- Collaborative collection management has been most successful since the Koninklijke Bibliotheek developed a plan, which generated additional money from the Dutch Research Organisation. Before that time there was no real commitment from the participants.
- Metamorfoze is very successful and it is expected that the Memory of the Netherlands will be too (the website is expected to be operational in 2002).

Sources:

BAKKER, T *Resource sharing in a virtual library environment: user oriented collection management* Koninklijke Bibliotheek 1999
<http://www.kb.nl/kb/vak/publ/resovirt.html>

KONINKLIJKE BIBLIOTHEEK Annual Report 2000
http://www.kb.nl/kb/resources/frameset_organisatie-en.html

PEEREBOOM, M DutchESS: Dutch Electronic Subject Services - a Dutch national collaborative effort. *Online Information Review* 24(1) 2000 46-49

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BIBSAM

Introduction

BIBSAM, or the Royal Library's Office for National Planning and Coordination, is the office that stimulates the coordinated development of Swedish research library services. It encourages coordinated planning, it funds development and training and it administers a system of grants to stimulate activities within and between autonomous institutions.

BIBSAM is a department of Kungl Biblioteket or Royal Library - the Swedish national library. It is, however, partly financed by the Ministry of Education by means of earmarked grants.

It does not have, nor does it seek, any formal authority over the Swedish research libraries. It cannot command them to do anything, rather, it tries to influence progress by supporting activity, by awarding grants, by acting on behalf of the research libraries and through recommendation.

BIBSAM works with over 80 state-financed research libraries. Six of these - the libraries of the universities of Gothenburg, Linköping, Lund, Stockholm, Umeå and Uppsala - are legal deposit libraries.

Aims and Objectives

BIBSAM's main task is to help ensure that the resources of the state's research libraries are used and developed in the best possible way, and to enable private individuals to use the services of these libraries on reasonable conditions. Its formal aim is: To promote the efficient provision of information to higher education, research and development, primarily by trying to ensure that:

- the resources of the Swedish research libraries are used and developed in the best possible way, and that,
- free and open access to information is maintained and developed.

Within this broad aim, BIBSAM has 11 specific objectives:

- To administer and develop a system of national resource libraries
- To undertake special studies in the field of libraries and information
- To support development projects
- To support inter-library lending
- To negotiate and manage central licences for commercial databases
- To organise continuing education, seminars and conferences
- To collect statistics and to evaluate library services
- To support the production and use of standards
- To monitor legislation of relevance to the library community
- To promote cooperation between research libraries, public libraries and archives
- To support international library cooperation

The pressures that led to collaboration

BIBSAM was the product of changes in the administration of universities, which in turn was a result of economic pressures. This created a perceived need to increase the effective use of resources through better coordination,

In 1977 the system of university administration was changed, beginning a process of reform that continued through to the 1990s. Until then, university libraries had been funded directly by the Ministry of Education, which made what are now considered to be fairly generous allocations. In 1977, funding responsibilities were devolved to individual institutions. There was a general concern that this would fragment the previously cooperative arrangements between research libraries and would lead to isolationism and a growing divide between those that were well-resourced and those that were not.

Some steps were taken to counter the effects of these developments. The Delegation for Scientific and Technical Information (DFI), for example, established the beginnings of a system of National Resource Libraries (see below). But there was a general concern that more was needed.

In 1988 the Delegation for Scientific and Technical Information was closed down and BIBSAM was established by the Ministry of Education within the Royal Library to undertake a programme of

coordination and planning to ensure that libraries would continue to be able to meet the need for information to support research and development. As part of its activities it took on the administration of the National Resource Libraries.

Since then, further reforms of the higher education system have served to increase institutional autonomy and, indeed, to stimulate competition between universities. Thus increasing the potential for fragmentation.

Allied to this has been a significant change in the nature of public administration. Financial pressures in the late 1980s and early 1990s caused major changes in the Swedish approach to the administration of public services, forcing through practices that were much more 'business-like'. These could easily have served to increase the potential for fragmentation. BIBSAM has sought to counteract the pressure by undertaking activities that increase cost-effectiveness and by equipping research librarians with the training, techniques, special studies and statistics that they require to respond to the challenges.

Interestingly, the scope for planning and coordinated development is constrained by the very factors that created the need for BIBSAM, that is to say, the increased autonomy of the host institutions. BIBSAM has no powers of coercion, it has to work through persuasion backed by financial incentives.

Collaborative activities

Collaborative collection management and development

The core activity in this area is the system of National Resource Libraries. These are 11 libraries that have been designated as centres of excellence in different subject areas.

The system of national resource libraries was established in the mid-1980s by the Swedish Delegation for Scientific and Technical Information. The aim was to counteract the fragmentation that was beginning to appear following the decision to devolve the responsibility for funding research libraries to individual institutions.

These 11 libraries receive grant aid from BIBSAM in recognition of the contribution that they make towards meeting library and information needs *outside their host institution*. The intention is to

develop these libraries as centres of excellence in terms of their collections, their reference services, their training services and their capacity to undertake development projects that are of wider interest.

Currently (2001) BIBSAM allocates about 8 million SEK (£550,000) to the libraries. The allocation of grants is based mainly on the level of state support for research and development in the different subject areas. The individual institutions decide how they want to spend the grant in consultation with BIBSAM. There is an emphasis on supporting developments such as the creation of subject gateways to information, the development of interactive reference services and the organisation of subject-specific continuing education for librarians. Except for the temporary subsidies directed to the acquisition of licensed electronic materials (see below) no economic support is given to the building of collections.

The computerised union catalogue, LIBRIS, enables individual librarians to see whether material has been acquired by, or is held by other libraries. This therefore facilitates a coordinated approach to acquisition and stock relegation - but it is a very de-centralised system of coordination.

On the whole, BIBSAM has not concerned itself with issues of collaborative storage or conservation and preservation.

Joint Licensing

BIBSAM negotiates joint licences for commercial databases on behalf of 35 Swedish university libraries and a number of state-funded but non-academic research libraries. The arrangement is, however, a fairly loose one and individual institutions may choose the agreements that they want to enter into.

The terms negotiated by BIBSAM are thought to be much better than commercial suppliers would offer to individual institutions. For example, libraries covered by the licence must be free to provide copies of articles to publicly-funded libraries that are not parties to the agreement; access to the databases must be open to anyone who is entitled to use the library, including members of the public, access must be by IP number - 'no messing around with passwords', and employees and students must be able to access the databases remotely.

BIBSAM negotiates with the providers, promotes the offers to participating libraries, signs the contracts, pays the providers and collects the payments from the participating libraries. The individual libraries specify the end-user requirements, manage the payments to BIBSAM, market the databases and monitor the level of use.

In order to stimulate use of electronic journals, and to increase acceptance within library budgets, BIBSAM temporarily subsidises most of the journal agreements. In 2002, which will be the last year of subsidy, these subsidies amount to about 15 per cent of the total cost and are met from a special grant of 10 million SEK (£650,000) from the Ministry of Education.

Bibliographic access and Inter-library lending

In this area, Sweden is fortunate in having a more-or-less single automated cataloguing system for research libraries, administered by the Royal Library. LIBRIS was introduced in the early 1970s and it is widely used by the research libraries. The system is hosted and maintained by the Royal Library with libraries inputting data directly using the Swedish University Computer Network (SUNET). LIBRIS has thus facilitated shared cataloguing.

The database also serves as a union catalogue for the research libraries and it provides the basis for a de-centralised system of inter-library lending. Sweden has the highest rate of inter-library lending within Europe and this activity is seen as critical to the effectiveness of the research library system.

However, the system of inter-library lending began to break down in the late 1970s when the funding system for academic libraries changed. Until then the libraries had been funded centrally and there was a feeling that the allocations reflected the fact that some libraries were net lenders while others were net borrowers. Following the reform, the funding for libraries became a matter for local determination by individual institutions. Cooperation became less a matter of mutually beneficial exchange and, instead, the institutions that were net lenders began to take a critical look at the costs involved.

To overcome the disincentives to inter-library lending, BIBSAM makes annual grants to the net-lending institutions. These grants

contribute to the postage and packing costs of inter-library loans in libraries where more items are lent than are borrowed. BIBSAM receives a specific annual grant from the government to cover these subsidies. Currently the grant amounts to about 10 million SEK (£650,000)

Management and financial arrangements

BIBSAM is the smallest of the departments in the Royal Library. It has a staff of eleven full-time equivalents, three of whom are devoted to the negotiation of joint licences.

The budget for 2001 was 35 million SEK (£2,350,000), of which 30 million SEK (£2,000,000) was distributed to the research libraries in the form of grants of one kind or another.

They have established several reference or consultative groups. One advises on the general operation of BIBSAM's activities. A second, consisting of 12 chief librarians, advises on the joint licensing arrangements.

Success and effectiveness

Effectiveness

- When managing the joint licences they initially tried to host data on a local computer in the Royal Library (this was on the insistence of Elsevier which was not prepared to open Science Direct to heavy, consortia users). This was not successful and, in future, all storage of, and access to databases will be the concern of the provider.
- Questions of archiving and preserving digital resources have not been resolved.

Successes

- The system of National Resource Libraries has been consolidated and strengthened so that it acts to support the Swedish national research effort.

- With the joint licensing arrangements they have achieved better terms and at lower cost than libraries would have been able to achieve working independently.
- Ensuring the continued operation of a de-centralised inter-library lending system in circumstances where administrative change created disincentives to lend.
- The employment of a legal adviser has proved to be very successful. She has been a great asset in the international discussions on copyright; she actively advises quite a few libraries each week on issues like copyright, data protection, privacy and the like, and she provides continuing education on legal matters relevant to libraries.

Sources:

NILSSON, K BIBSAM and its role in coordination and support of Swedish research libraries. *Alexandria* 6 (1) 1994 63-71

NILSSON, K BIBSAM's licensing of databases for Swedish universities. *DF-Revy* 1999 33-34

NILSSON, K *Coordination of licence agreements in Sweden with some reference to the Nordic situation* Consortia Workshop, Budapest, 10-11 November 2000
<http://www.kb.se/bibsam/dbupphdl/arkiv/pp/budapest.htm>

A general description appears at:
<http://www.kb.se/bibsam/verksamh/english.htm>

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ASSOCIATION OF RESEARCH LIBRARIES

Introduction

ARL is a not-for-profit membership organization comprising the leading research libraries in North America, originally established in 1932. (Stam, 1992) The Association articulates the concerns of research libraries and their institutions, forges coalitions, influences information policy development, and supports innovation and improvements in research library operations.

Membership is by invitation only 'to major university libraries whose collections and services are broadly based'. This is defined as 'those whose parent institutions broadly emphasize research and graduate instruction at the doctoral level and grant their own degrees, which support large, comprehensive research collections on a permanent basis, and which give evidence of an institutional capacity for and commitment to the advancement and transmittal of knowledge.' (<http://www.arl.org/stats/qualify.html>)

The criteria for university library members consist of three parts: the first to ensure a similarity of parent institutional characteristics with the current membership; the second to ensure comparability of size; and the third to ensure diversity and significant contribution to the distributed North American collection of research resources. There are currently more than 120 members and meetings are held twice yearly.

Aims and Objectives

The mission of the Association of Research Libraries is 'to shape and influence forces affecting the future of research libraries in the process of scholarly communication. Association of Research Libraries programmes and services promote equitable access to, and effective use of recorded knowledge in support of teaching, research, scholarship, and community services.'

Its current objectives are:

- To understand, contribute to and improve the system of scholarly communication and the information policies that affect the availability and usefulness of research resources

- To make access to research resources more efficient and effective
- To assist member libraries to exploit technology in fulfilment of their mission and to assess the impact of educational technologies on scholarly communication and on the role of research libraries
- To support member libraries' efforts to develop and maintain research collections, both individually and in aggregate
- To support member libraries' efforts to preserve research collections, both individually and in the aggregate
- To identify on an ongoing basis the capabilities and characteristics required for research library personnel to serve best their constituencies
- To assist member libraries in augmenting their management capabilities
- To describe and measure the performance of research libraries and their contributions to teaching, research, scholarship and community service.

The pressures that led to collaboration

The Association of Research Libraries is 60 years old and yet according to David Stam's account of the early years of the Association it is interesting to note that many of the current pressures encouraged collaborative activity at that time, viz. 'the search for technologies to aid research libraries...serials, statistics, relationships to other organisations, ...resource sharing, bibliographical control, preservation and copyright.' (Stam, 1992)

In the past five years the major focus of the Association of Research Libraries collaborative activities has been Federal Relations, (analysing, responding to and influencing information, intellectual property and telecommunications policies at a national and international level on behalf of members) and Statistics and Measurement (the testing and application of statistics to respond to the need to demonstrate institutional accountability).

Collaborative activities

Collaborative collection management and development

Collections Services and the AAU/ARL Global Resources Program

In the early 90's the Association of Research Libraries and the Association of American Universities set up a joint programme to reflect the changing collection habits of institutions in an international context. The focus of this area of the Association of Research Libraries's work has been, and continues to be, how to build better collections of materials not held in the US.

Three projects were established initially: Germany, Latin America and Japanese studies. More were added later: South East Asia, African newspapers and Slavic studies. Each of these projects began with a simple goal: to ensure the collection of material published outside the US in the field. Both these programmes are run by Deborah Jakubs and are supported by the Research Collections Committee, one of the Association of Research Libraries's foundation committees.

The Latin American project has been the most successful of these initiatives. Its major achievement has been to obtain the agreement of all the 30/40 key players to guarantee to continue to collect 5 titles of particular relevance to the discipline in perpetuity. In this way other institutions can cancel a specific title in the knowledge that one library will still hold it. Overall this has released \$200,000 (£140,000) for the purchase of new titles across the board. The member libraries are now investigating developing stronger inter-library loan links with libraries in Latin America to enhance document delivery. This project has to date focussed on print journals because of a lack of e-journals.

The German and Japanese projects were not as successful initially. One of the reasons for this relative lack of success is that all these projects have been dependent upon voluntary staff involvement and this has not always been forthcoming.

Closer links with German and Japanese libraries are being sought to facilitate access to these international specialist collections. Today both projects are concentrating on document delivery as one of their major activities. The Japan Journal Access Project is supporting a test of the OCLC International Standards Organisation Inter-Library Lending Protocol between NACSIS ILL system and the OCLC ILL system. Implementation is planned for early 2002. The Japanese project has also been involved with developing a union list of Japanese newspapers. The Center for

Research Libraries already hosts the South East Asia digital server and it is hoped will also agree to host the Union List of Japanese Serials and Newspapers. The South East Asia project is also seeking closer ties with libraries in Thailand and is working toward digitising sets of material from the home countries.

Each of the Global Resource Programs has evolved in different ways. All have tended to move toward document delivery to a greater or lesser extent and more recently have begun consciously to build closer ties with the countries of origin, particularly in the area of electronic delivery. There has been a reluctance to move books between libraries but this is beginning to change.

New Global Resource Programs spring from individuals expressing an interest in a particular subject area. The Mellon Foundation has supported these initiatives to date together with contributions from member libraries of staff time and travel. Only the Latin America Project has a fee to participate.

Joint Licensing

The Association of Research Libraries does not negotiate joint licensing on behalf of members. Its involvement with licensing has been in two ways: first, to run workshops for library staff and publishers about negotiating licences; second, to support the development of a model licence for use by members. Thus far the Association has been unable to endorse the model licence however because of some concerns with aspects of its content.

Scholarly communication

Scholarly communication is a key aspect of the current work of Association. In March 2000 the Association of Research Libraries, the Association of American Universities and the University of Kansas combined to organise a meeting in Tempe, Arizona at which nine principles for emerging systems of scholarly publishing were agreed. The Association of Research Libraries hopes these will transform the scholarly publishing system by redressing the balance between the commercial world and the academic community. (<http://www.arl.org/scomm/tempe.html>):

- The cost to the academy of published research should be contained so that access to relevant research publications for faculty and students can be maintained and even expanded. Members of the university community should collaborate to

develop strategies that further this end. Faculty participation is essential to the success of this process.

- Electronic capabilities should be used, among other things, to: provide wide access to scholarship, encourage interdisciplinary research, and enhance interoperability and searchability. Development of common standards will be particularly important in the electronic environment
- Scholarly publications must be archived in a secure manner so as to remain permanently available and, in the case of electronic works, a permanent identifier for citation and linking should be provided
- The system of scholarly publication must continue to include processes for evaluating the quality of scholarly work and every publication should provide the reader with information about evaluation the work has undergone
- The academic community embraces the concepts of copyright and fair use and seeks a balance in the interest of owners and users in the digital environment. Universities, colleges, and especially their faculties should manage copyright and its limitations and exceptions in a manner that assures the faculty access to and use of their own published works in their research and teaching
- In negotiating publishing agreements, faculty should assign the rights to their work in a manner that promotes the ready use of their work and choose journals that support the goal of making scholarly publications available at reasonable cost.
- The time from submission to publication should be reduced in a manner consistent with the requirements for quality control.
- To assure quality and reduce proliferation of publications, the evaluation of faculty should place a greater emphasis on quality of publications and a reduced emphasis on quantity
- In electronic as well as print environments, scholars and students should be assured privacy with regard to their use of materials.

SPARC (the Scholarly Publishing and Academic Resources Coalition) is one of the key players in moving these changes forward. It is a world-wide alliance of research institutions, libraries and organisations that encourages competition in the scholarly communications market. 'SPARC introduces new solutions to scientific journal publishing, facilitates the use of technology to expand access, and partners with publishers that

bring top-quality, low-cost research to a greater audience. SPARC strives to return science to scientists.' (<http://www.arl.org/sparc/>)

SPARC is based in the offices of the Association of Research Libraries and is an initiative of the Association. The two organisations collaborate on a number of projects, including those within Association of Research Libraries 's Office of Scholarly Communication. SPARC was founded in 1998 and is one of the partners in the BioOne initiative.

Access and Inter-library lending

Inter Library Lending

In the early 90's the Access Committee focussed its work on bibliographic control and cataloguing. Gradually the emphasis has shifted toward access to collections and particularly inter-library lending. Today much of the work of Access Services is on developing a standard for inter-library lending – the ISO/ILL Protocol. The introduction of this Protocol will allow seamless access to collections both nationally and internationally.

The Scholars' Portal

Members of the Association are keen to establish a Scholars' Portal. This will create a strong library web presence targeted to serve the special interests of the scholarly community. What is envisaged is a web environment to provide significant content and also support services such as reference, inter-library lending and document delivery, maps to libraries, and customised capabilities such as subject filtering and cross-resource searching. The Association of Research Libraries is currently in negotiation with a commercial vendor to supply such value added material.

Preservation

Preservation has been a traditional strength of the Association. For many years the organisation has collected statistics of the scale of the preservation problem, what is being preserved, costs etc. Much of the work has concentrated on traditional print based preservation, but the focus of its work is shifting toward digital preservation. This has created some divisions amongst members. The Association of Research Libraries works closely with the Council on Library and Information Resources to obtain funding to support preservation programmes and it has been suggested that the Association of Research Libraries' preservation work should be passed to the Council on Library and Information Resources.

Management and financial arrangements

The Association of Research Libraries has 15 professional staff under the Executive Director, Duane Webster. A Board of Directors sets the priorities annually. Committees are made up of representatives from member organisations. It has a \$400 million (£282 million) annual budget - 50 per cent from subscriptions and 50 per cent from grants; the latter from organisations such as the Mellon Foundation.

Success and effectiveness

Effectiveness

- Members of the Association of Research Libraries are frequently members of many different consortia, each with different priorities. This can lead to duplication of effort.
- Priorities are changing within the Association with Federal Relations and intellectual property rights moving centre stage and other more traditional activities receiving less attention.

Successes

- The Association of Research Libraries operates at a national, strategic level and is well placed geographically (in Washington DC) to lobby effectively on behalf of its members at government level.
- It is an elite organisation and commands respect amongst the research community.
- The Association of Research Libraries has the resources to initiate major developments such as SPARC and the Scholars' Portal

Sources:

Association of Research Libraries *Principles for emerging systems of scholarly publishing*, 2000

(<http://www.arl.org/scomm/tempe.html>):

McClarty, C. and Barrett, J. (eds.) *Association of Research Libraries Program Plan 2001*, (<http://www.arl.org/stats/qualify.html>)

SPARC The Scholarly Publishing and Academic Resources Coalition, *About SPARC*, 2001 (<http://www.arl.org/sparc/>)

STAM, D.H. *Plus ca Change: sixty years of the Association of Research Libraries*, 1992 (<http://www.arl.org/arl/plus.ca.html>)

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THE RESEARCH LIBRARIES GROUP

The Research Libraries Group (RLG) is a not-for-profit membership organisation of over 160 universities, national libraries, archives, historical societies, and other institutions with outstanding collections for research and learning. Rooted in collaborative work that addresses members' shared goals for these collections, RLG develops and operates information resources used by members and non-members around the world.

The RLG was founded in 1974 by the chief librarians of the four major US research libraries: the universities of Yale, Harvard, Columbia and the New York Public Library. The four librarians were interested in forging an organisation optimised for effective resource sharing among institutions with a common mission to support the needs of research. Its major focus of activity since the beginning has been the humanities and social sciences. This includes the history of science. It saw this aspect of research support as lagging behind the sciences.

Membership of RLG is open to any not-for-profit university, museum or research institution whose prime mission is to support research. There are no entry requirements, but the subscription acts as a deterrent for many institutions. The membership is international with members in North America, the United Kingdom (28), Europe, Russia, Egypt, Africa, Australia, New Zealand and Japan.

Among the first initiatives to be pursued was inter-library lending, followed closely by shared cataloguing, preservation and cooperative collection development. The key current initiatives today are digital preservation, cultural resources access and inter-lending and document supply. All three initiatives build from and continue RLG's past work. It is clear that RLG works in an evolutionary way, building on previous activity to fulfil its overall mission.

RLG does not lobby for government action (the Association of Research Libraries functions as the primary lobbying voice for research libraries in the US). Nor does it engage in joint purchasing activities, which are more appropriately addressed by local and regional consortia in the US, by JISC in the UK, and by similar organisations in other countries where RLG members are located.

Aims and Objectives

The mission of the RLG is looked at regularly but has not changed fundamentally in the 25 years since it was created. The current text, adopted in 1991, states that the RLG exists to support its members in containing costs, improving local services, and contributing to the world's collective access to scholarly materials. The mechanisms applied in pursuit of these goals take many shapes but have one thing in common - co-operative action. Between 1996 and 2000, the RLG's *Strategy for 2000* focused on three goals:

- Transforming research: making unique contributions in changing the way research and scholarship are conducted, the nature of services that institutions provide in support of research and learning, and the environment in which research is conducted.
- Becoming a global resource: building the foundation for the international research information environment and filling a vital role in supporting scholarly research needs world-wide.
- Providing distinctive library services: enhancing established support of basic library services in ways that help to promote resource sharing and end-user information delivery.

Since 1999 the organisation has pursued three key initiatives:

- Access to cultural material resources
- Long-term retention of digital research materials
- Next-generation resource sharing

These are to be reviewed as part of the imminent strategic review process.

The pressures that led to collaboration

RLG was established in 1974, a year after the creation of OCLC. OCLC had been set up to create a universal catalogue of all libraries in the US including schools, public and university libraries. Whilst welcoming this initiative, the librarians of the four large research libraries wanted a bibliographic access tool, which was designed specifically for research libraries. Prior to this date, research libraries had been struggling with the problem of lending and borrowing specialist materials with no knowledge of where such material might be held. The only solution available was to contact individual libraries in writing, or by telephone, asking whether they held particular items.

In contrast to many other regional and national collaborative ventures, money was not a significant deterrent for the original RLG members in the decision to collaborate. In fact those institutions believed that they would have the greatest impact on the challenges if they pooled resources, expertise and energy. Preservation, one of the early areas of attention, represented an enormous financial problem for RLG libraries, which no individual library could deal with alone. In the mid 1970s it was estimated that 40 per cent of US research library collections were at risk of loss due to the brittle book problem. Already individual libraries had begun to microfilm parts of their collections. However this was being undertaken in a piecemeal fashion. The creation of the RLG created a national collaborative forum in which research libraries began to consult with one another. The co-operative model it established was pivotal in the development of a national preservation microfilming programme and served as the basis for co-operative projects in the UK and elsewhere in subsequent years.

Collaborative activities

Collaborative collection management and development

Early efforts to build a more effective resource-sharing environment among US research libraries included attempts to create model collection policies. A variety of projects were launched in US venues in the late 1970s and early 1980s. This was to test the proposition that libraries could extend their trust in each other, even to the extent of not buying materials that might well be needed, if another library could be relied upon to purchase

and lend wanted materials. RLG's major contribution in this arena was the creation of Conspectus.

RLG handed over Conspectus to the Association of Research Libraries in the early 1990s. Prior to that, RLG worked with the Western Library Network as it developed a PC-based tool for data gathering and analysis for institutions wishing to implement Conspectus outside the RLG community.

In the late 1980s and early 1990s, RLG worked with members wishing to agree commitments to retain, on a title-by-title basis, serial runs, including ongoing subscriptions. This work took place in the context of Conspectus "Primary Collecting Responsibilities" and brought together libraries which acknowledged their historic and current strengths in particular disciplines.

The core and expanded serial literature in their disciplines were identified and responsibility allocated for specific titles for a five-year renewable period. An indication of this commitment was added to the MARC record in the RLG Union Catalogue. Although there was solid support for the initiative within some parts of the membership, it was generally thought to require too much overhead to be sustainable. In 1996 the project was formally closed.

Today, one of the key RLG foci is building online access to cultural material resources. This service is being developed and realised through an alliance of cross-sectoral and cross-domain institutions to contribute and distribute digital surrogates of valuable collections. Advisory groups develop directions and consensus on a range of issues, from licensing agreements to content development and descriptive guidelines. The RLG Cultural Materials resource is a dynamic, multimedia collection of digital versions of manuscripts, photos, art, historical documents and memorabilia brought together from around the world. 75,000 images are already available, with a goal of 400,000 -500,000 items available in two years. "Hidden collections," previously in storage or otherwise inaccessible to museum or library visitors will be made available to researchers for the first time. It will also bring together in a "virtual" environment dispersed collections or those that have never been housed together. The aim of the service is to create "a unique, flexible Web workspace - developed with the materials' special characteristics in mind - users can discover, compare, interpret, and make connections between materials in ways that enrich teaching, learning, and scholarship."
[<http://www.rlg.ac.uk/culturalres/index.html>.]

Preservation and retention

Preservation of US research collections was one of the key factors behind the creation of the RLG in the mid 1970s. The founding members of RLG agreed that joint activity was essential to tackle the brittle book problem. At this time it was estimated that approximately 40 per cent of US research library collections were at risk of loss due to the self-destructive action of acid in the paper used for producing books, journals, newspapers and even common office paper stock. The only viable solution was to identify and preserve at-risk volumes through large-scale microfilming programmes.

The earliest work to organise models for large-scale action (around 1980) was launched by RLG, when it secured external funding for the creation of machine-readable records for titles already microfilmed. Next, RLG members agreed best practices for the selection of items to be preserved and the creation of preservation microfilm. By 1983 RLG had received the first of 12 major microfilming grants (from private and federal sources, totalling over \$10 million (£7 million)). This resulted in the preservation of about 250,000 titles over a 10-year span and also trained dozens of librarians and para-professionals in management of preservation microfilming projects and programmes. RLG established the *de facto* national standard for creating and cataloguing preservation microfilm of books, serials and archives and manuscripts. RLG's two microfilming publications (published in 1992 and 1994) are still regarded as the foundation documents for preservation microfilming efforts globally.

In the 1990s, the agenda shifted toward the preservation of materials digitally and two aspects, which again no single institution working alone could effectively address:

- Providing tools and developing best practices for institutions wishing to produce and describe high quality digital images
- Advancing the library and archive community's understanding of and competence in managing the growing body of digital materials that comprise current and future research resources.

Digitisation and digital preservation initiatives with associated opportunities for learning among participating institutions and the

community-at-large have been the principal focus of energies since the mid-1990s:

- Digital Imaging and Access Project (1992-95) to assess imaging technologies and agree approaches to descriptive practices for digital images
- Marriage, Women and the Law project to bring together digitised materials on related subjects under a unified searchable interface
- Standards work to develop agreement on best descriptive practices for high-quality digital images; subsequent adoption for implementation in MARC21
- Tools for mounting and managing digitisation projects (model budget spreadsheets, etc)
- Seminal publications: Working groups, consultancies and partnerships with like-minded organisations result in publications that move the community ahead in developing digital preservation understanding and building digital preservation capacity. Examples include the Commission on Preservation and Access (CPA)/RLG Task Force on Digital Archiving (report published 1996).

A programme officer together with a small team of non-specialist colleagues leads this aspect of RLG's work.

RLG's current agenda continues to focus on digital preservation and the challenges libraries, archives, and museums face in preserving their digital collections for future research. Its long-term objective is to develop a digital archiving model for preserving RLG members' collections. Selection, deposit, storage, maintenance, and access components of the archiving model will be examined and best practice guidelines created. Work under this initiative is being coordinated with partner organizations, including the DLF, the National Library of Australia, the Council on Library and Information Resources (CLIR), the UK's Digital Preservation Coalition, and OCLC, to eliminate redundant effort and ensure maximum impact. (<http://www.rlg.ac.uk/longterm/index.html>)

Record creation and bibliographic access

The development of a union catalogue was the major objective in the mid 1970s. From the beginning RLG members contributed all machine-readable MARC records to a common online catalogue, maintaining their records in the unified environment as a means of facilitating shared cataloguing and interlending. The flow of incoming records rapidly increased in the 1980s as a result of the decade-long national (US) retrospective conversion efforts, despite the advent of local, integrated library systems in the mid-1980s. The RLG Union Catalogue today comprises over 40 million unique titles (well over 125 million MARC records) for books, serials, maps, visual materials, scores, sound recordings, archives, manuscripts, electronic data files, and collections of all material types.

RLG continues to provide online cataloguing support in original script languages: Chinese, Korean, Japanese, Cyrillic, Hebrew, Yiddish, Arabic, Persian and were cofounders of the UNICODE consortium. This agreed an international standard for character sets, now adopted by all major software providers and most web browsers)

A web interface (Eureka) is available to all RLG resources. This permits the search/display of original scripts and includes the ability to place requests for needed items, save/reuse search results within the system, and export records in MARC as well as a number of common citation formats. There are Z39.50 gateways from the RLG Union Catalogue to large catalogues (CURL, Deutsche Bibliothek, National Library of Australia) complement and enhance RLG's information resources.

RLG members are now able to move from the bibliographic record via a web link to the digital image of the book or artefact. Promulgation of the Encoded Archival Description (EAD) standard, global training in its use, development of a research resource – Archival Resources – that brings together archival finding aids in a variety of formats (SGML, HTML, XML) into a unified searchable interface. Contributors include member and non-member institutions from around the world.

A large-scale online resource, RLG Cultural Materials, was launched early in 2002. This brings together surrogates of all types from a diverse community of contributing institutions into a unified environment optimised for contemporary information-seeking behaviours.

Inter-library lending

The original purpose of the RLG collaboration was to improve user access to materials not held by the home institution. The partnership developed a set of protocols and agreements governing all aspects of the interlending enterprise in the context of a “balance of trade” construct (SHARES).

Partnership benefits included on-site access for researchers at any SHARES participant institution, as well as the early deployment of an inter-lending sub-system within the RLG Union Catalogue that allowed all members to borrow and lend amongst themselves while permitting for centralised statistical oversight by RLG.

Today 95 of RLG’s 164 members are active partners in SHARES. Reciprocal on-site access for researchers is still a hallmark of the partnership. Last year more than 117,000 requests were filled among SHARES partners world-wide at a rate of over 10,000 successful transactions per month. The results of the “balance of trade” collaboration means that an institution which, over the course of a year, borrows 5,000 items and lends 5,000 items with SHARES partners, concludes the year having paid no real funds to borrow items on behalf of its researchers. (See “Next-Generation Resource Sharing” at: [http://www.rlg.ac.uk/ressharing/.](http://www.rlg.ac.uk/ressharing/))

The SHARES partnership is self-governed by the elected SHARES Executive Group whose work is led by an RLG programme officer working with technical and other colleagues within RLG. ([http://www.rlg.ac.uk/shares/index.html.](http://www.rlg.ac.uk/shares/index.html))

This includes:

- Continual refinement and expansion of protocols and tools for interlending and document supply
- Ariel software (document transmission over the Internet) developed by RLG in 1991 – in direct response to requests from the SHARES community. Ariel has become the standard document supply software worldwide among libraries and document suppliers.
- Central participation in the development of the ISO ILL protocol
- Technical product development of RLG ILL Manager software, one of the first implementations of the ISO-ILL protocol for a peer-to-peer resource sharing model that

allows libraries to interact with a variety of partners (within and outside of SHARES) and suppliers

- Maintenance of a “balance of trade” approach to consortia resource sharing (where institutions subsidise each other’s interlending activities) as a fundamental commitment to consortia interactions
- Expansion of protocols to an increasingly international partnership

Management and financial arrangements

RLG is governed by an elected Board of Directors and staffed by approximately 100 employees, based in Mountain View, California (with an office in London). RLG’s operating budget derives from annual subscriptions from its members and usage fees for accessing its online resources (payable by both members and non-members). The overall budget is approximately \$14million (£10 million) per annum excluding any “soft money” it secures.

RLG receives no public funding other than that which is available on a competitive basis from US federal agencies that fund special projects and initiatives in areas of RLG focus. Gifts solicited from private foundations supplement the operating budget in key priority areas.

RLG views collaboration for its own sake “as a futile and wasteful exercise. [Their] approach has always been to work with our members to identify the very biggest problems they face collectively and work together to carve out successful solutions. In this way, collaboration is a tool rather than an end in itself; as such, it is a means not only of ensuring a high quality end result, but also of effectively using the human resources that populate our communities of interest. Thus, we deploy an expensive tool - collaboration - only where there is no other way of guaranteeing a successful outcome. And when an objective does not require such expense and/or investment, we use other tools available to us.” (Elkington, 2002)

Success and effectiveness

Effectiveness

- RLG is dependent for income on subscriptions, which do not grow rapidly. It views itself as a “lean organisation” with only 100 staff to support 165 members internationally and all users of its online resources internationally. But it experiences tension caused by the need to continue to run current services, whilst at the same time responding to new issues and seeking to innovate.
- The organisation seeks to be forward thinking and develop solutions to problems. On rare occasions this has led to the centre being ahead of the community. Most notably with regard to the development of AMIS, an integrated archival/museums software environment, begun in the early 90’s and discontinued a few years later.
- The key focus of RLG has always been, and continues to be to support research. New members occasionally challenge this. Normally they leave fairly quickly if they are not happy with the RLG mission.

Successes

- RLG has been a major national and international player for 25 years, developing collaborative initiatives, particularly in the areas of digital collection development, preservation, record creation, bibliographic access and inter-lending.
- RLG understands the collaborative process and is experienced and skilled at managing people toward a shared objective, which is not a compromise. “Pushing the walls out” is how Nancy Elkington expresses this. The developing international focus makes this increasingly challenging because of the cultural differences, which have to be accommodated.

- The cross-sectoral and cross-domain focus of RLG has operated since the 1980s and has created a forum for archivists, librarians and museum curators to communicate.

Sources:

Attributes of a Trusted Digital Repository: Meeting the Needs of Research Repositories,

(<http://www.rlg.ac.uk/longterm/attributes01.pdf>)

CARR, R. RLG's *Priorities in the 21st Century* RLG News 50 Spring 2000, (<http://www.rlg.ac.uk/rlgnews/news50.html>)

ELKINGTON, N. *RLG and collaboration: paper produced for the Research Support Libraries Group to study the international experience of collaboration in research library provision*. 2002

Preserving Digital Information: Final Report and Recommendations

(<http://www.rlg.ac.uk/ArchTF/index.html>)

Preservation Activities <http://www.rlg.ac.uk/preserv/index.html>

Preserving Digital Information [http://www.rlg.ac.uk/longterm/.](http://www.rlg.ac.uk/longterm/))

Preservation Metadata for Digital Objects: A Review of the State of the Art (http://www.oclc.org/digitalpreservation/presmeta_wp.pdf)

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GREATER WESTERN LIBRARY ALLIANCE GWLA

Introduction

The Greater Western Library Alliance (GWLA) was created on an informal basis over ten years ago based around the universities of the Big Eight Athletic Conference. The original members were the Universities of Nebraska, Iowa State, Missouri, Kansas, Kansas State, Colorado, Oklahoma and Oklahoma State. It is a research library consortium and it is determined not to dilute this key focus.

GWLA is a not-for-profit organisation that now consists of 29 research libraries in fifteen states stretching from Illinois to the Pacific coast. The consortium was known initially as the Greater Midwest Research Libraries Consortium. It became the Big 12 Plus in 1996 after the original group expanded to twelve members. In October 2001 it changed its name yet again to the Greater Western Library Alliance to reflect the current membership.

Aims and Objectives

GWLA's mission is 'to deliver quality cost-effective services and resources required by clients of member institutions through joint action and collaboration.'

Its objectives encompass three areas of activity: resource sharing, scholarly communication and continuing education. Resource sharing encompasses interlibrary loan, licensing electronic resources, cooperative collection development, and digitisation. Preservation and conservation although initially identified as an area of activity never developed.

Resource sharing:

- design and develop a technical framework that will be a major contribution to the next generation of automated, patron-initiated interlibrary lending systems.
- develop a programme to provide consortium members with more cost-effective access to electronic resources through joint licence agreements and purchases.
- develop specialised, consortium-wide digital collections in subject areas that support common instruction and research missions of the member institutions.

- develop a comprehensive outline for cooperative collection development (including resources in all formats, as well as related services) in selected disciplines.

Scholarly Communication:

- become a change agent and national influencer in efforts to return control of the scholarly communication process to the academy.
- pursue development and implementation of a national policy on scholarly publishing
- develop a publicity and education programme designed to defend the GWLA community against legislative efforts to implement new intellectual property policies that are detrimental to education, teaching, and research.

Continuing Education:

- develop and maintain an ongoing programme of training and development activities for member libraries across a broad spectrum of issues.

The pressures that led to collaboration

The Library Directors of the Big 8 met biannually from the early 90's on an informal basis, to discuss issues of mutual concern. Initially it was not a collaborative exercise. In 1994/95 this changed to a limited extent with the launch of an Inter-Library Lending Programme run by the inter-library lending librarians. However the real stimulus to greater collaborative activity occurred in the mid 90's. This was the development of the Internet, the licensing of e-journals and scholarly communication.

As major research institutions, the members of the GWLA are all members of other consortia. These multi-consortial obligations operate on three levels: locally, regionally and nationally.

Locally - Individual members of the GWLA are the major state library and operate as the flagship institution for their state-wide consortium.

Regionally - They are members of the Greater Western Library Alliance.

Nationally - 23 out of the 29 members are members of the Association of Research Libraries

These multi-consortial obligations can create tensions and divided loyalties for members. However membership of the GWLA is seen

to be important to ensure specific research library issues are addressed.

Collaborative activities

Resource sharing

Bibliographic access and Inter-library lending

The inter-library lending programme was the initial collaborative activity established by the consortium. Members of the GWLA loan books and photocopies, up to 50 pages, on a reciprocal basis. Initially the consortium contracted Federal Express to deliver material to member institutions, but this was felt to be too expensive despite speed and reliability of the service. The present contract is with United Parcel Service. A Task Force carried out a survey of members last year which identified three major goals of inter-library lending - accuracy, speed of delivery, and accessibility of materials - and a range of Best Practices to support these goals. The Task Force also identified barriers which can hinder goal fulfilment, including staff shortages, training, and turnover; accuracy in citations and fulfilment; low technology; out-dated or inefficient procedures; unavailability or unwillingness to use union lists. (<http://www2.lib.ukans.edu/~public/btp/ExecSumm.htm>)

Big 12 Plus was involved in a pilot project with OCLC to develop a web-based ILL system. It was introduced in seven of the member libraries, but was withdrawn in 2001 'because of a change in development strategy at OCLC'. (Big 12 Plus Newsletter 2001)

Joint Licensing

Electronic licensing of journals is not the main focus of the GWLA. The majority of its members are key players in electronic licensing in their state consortia. The role of GWLA has therefore been to negotiate licences for its members on a selective basis with the more scholarly publishers such as John Wiley and Alexander Street for example. These licences include titles which are primarily aimed at graduate students and staff and would not be of interest to undergraduate collections.

Collaborative collection management and development

One of the goals identified in 1998 was to develop a comprehensive outline for cooperative collection development (including resources in all formats, as well as related services) in selected disciplines. A taskforce was established and bioengineering was identified as a suitable area for initial testing. However its work has been delayed for a number of reasons. What has emerged is the view that the creation of a central repository is not an appropriate strategy. The focus will be on the building of a digital collection.

The trend toward digital collection development is clearly gaining momentum. A digital library *Water in the West* began development in Spring 2001 based in Colorado. This is primarily a collection of scholarly digital materials.

A new initiative is the creation of Scholars' Portals'. Little progress has yet taken place, but the intention is to build a number of discipline specific links aimed at researchers. Russian and East European Studies are strong programmes in member institutions and may be selected for such development.

Scholarly communication

Scholarly communication has been the driving force behind the GWLA since 1998. In 1998 David Schulenburger, Provost of the University of Kansas issued a call to arms to the research community against the increasing commercialisation of scholarly publication. The result was the Tempe Principles (<http://www.arl.org/scomm/tempe.html>). The GWLA endorsed these at a meeting at which the Chief Academic Officers of 23 member institutions were present.

In 1999 the opportunity came to take concrete action. A small academic publisher Allen Press approached the GWLA with the idea of aggregating a number of small, specialist biological journals onto one database. A separate non-profit making company was established with five member organisations: Allen Press, University of Kansas (where the database is hosted), GWLA, SPARC (Scholarly Publishing and Academic Resources Collection), and the American Institute of Biological Sciences.

The project began in summer 1999 and BioOne was launched in April 2001 with 40 electronic journals in the biological sciences.

The start up costs were \$1.25 million (£880,000), of which GWLA contributed \$57,000 (£40,000). The business model is one of cost recovery, with 50 per cent of revenue being returned to the societies, based on usage. The advantage to the academic community is that of reputable peer referencing of e-journal publications. There are now plans to develop other similar ventures but not with the GWLA as an active partner.

Management and financial arrangements

There were no paid staff of the consortium until 1998 and the appointment of the first Executive Director, Adrian Alexander. There are two full-time staff the Executive Director and a Project Officer, Resource Sharing. They are based at Linda Hall Library, Kansas City. All members of the consortium pay a subscription of \$8,000 (£5,600) per annum. The total income is \$230,000 (£162,000) approximately of which 60 per cent covers revenue costs and 40 per cent is dedicated to project work.

Success and effectiveness

Effectiveness

- Little collaborative activity apart from inter-library lending was evident amongst consortium members until the mid 90's. Lip-service was paid to resource sharing in the past but there has been little concrete activity amongst GWLA members. The view of members has always been 'my money comes from my institution and I have to give it first priority'.
- The consortium has not developed a preservation or retention programme.
- Multi-consortial obligations of member libraries have meant that they cannot, and indeed in many cases, do not want to devote their energies to the work of GWLA. In the view of Adrian Alexander 'the organisation is too big and too spread out to find activities that all members will be involved in.'

Successes

- The development of electronic resources has been seized upon with enthusiasm by member institutions who perceive it as a way to build activity and increase their institutional profile without sacrificing core activities.

- The key success for GWLA has been its involvement in the creation of BioOne. This has raised its profile and provided a leading edge resource for its members.

Sources:

ALEXANDER, A. W. Toward the perfection of work: library consortia in the digital age, *Journal of Library Administration* 28 (2) 2001

Big 12 Plus Electronic Newsletter Summer 2001
(<http://www.gla.org/newsletters>)

COFFMANN, S. Big 12 Plus Libraries and OCLC join forces, *Information Today* 17 (3) 2000

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OHIOLINK

Introduction

OhioLINK is a very active, leading edge collaborative group in the United States. It is frequently cited in the professional press and by other consortia, both nationally and internationally.

The Ohio Library and Information Network, OhioLINK, is a consortium of Ohio's college and university libraries and the State Library of Ohio. Serving more than 500,000 students, faculty, and staff at 79 institutions, OhioLINK's membership includes 17 public universities, 23 community/technical colleges, 38 private colleges and the State Library of Ohio. OhioLINK serves faculty, students, staff and other researchers at member institutions via 113 campus-based library systems and networks, and the Internet.

OhioLINK, a cooperative venture of university libraries and the Ohio Board of Regents, grew out of a 1987 recommendation by the board's library committee that 'the state of Ohio implement, as expeditiously as possible, a state-wide electronic catalogue system.'

In response to this recommendation, the board established a steering committee representing librarians, faculty, administrators and computer systems managers from campuses throughout Ohio. Finally in 1990, OhioLINK selected Innovative Interfaces, Inc. to develop the unique software system to create the OhioLINK central catalogue and selected Digital Equipment Corporation for the computer hardware base. OhioLINK licensed four databases from University Microfilms International, UMI, for citations to millions of business, newspaper and periodical articles and to academic dissertations. These elements formed the foundation of the OhioLINK system of services. In 1992, six universities installed OhioLINK systems and began the ongoing process of building the central catalogue. In February 1996, OhioLINK began offering services through the World Wide Web.

At the heart of OhioLINK's collaborative activities is the centralised catalogue system from which has grown access to research databases, the Electronic Journal Centre and the Digital Media Centre. Ohio universities also operates five high-density storage centres.

Aims and Objectives

OhioLINK's mission is 'to provide a comprehensive set of information resources that will support Ohio's expanding higher education's needs in the 21 century.'

The current objectives are:

- To improve the user experience
- To expand Ohio's ability to publish research on-line
- To maximise the libraries' and OhioLINK's purchasing power
- To create an awareness of the resources available
- To expand access to new quality, information resources
- To develop partnerships beyond academic libraries
- To share untapped resources

The pressures that led to collaboration

In the mid 1980's the Ohio Board of Regents faced pressure to finance additional library building from the state's university libraries to house their rapidly expanding collections. The Board of Regents is the co-ordinating agency for funding higher education in the state and it forced the individual players to focus on the problem of spiralling costs from a state-wide perspective. Specifically they wanted to know how the state could afford to buy and share books more effectively. The key decision was therefore made in 1987 that 'the state of Ohio implements, as expeditiously as possible, a state-wide electronic catalogue system.' The Board of Regents estimated that the cost of providing the necessary additional storage would have been over \$100 million (£70 million) every ten years, far more than has been spent on the entire OhioLINK programme and high-density storage sites to-date.

Collaborative activities

Collaborative collection management and development

Collaborative collection management and development is a priority of OhioLINK but addressing it comprehensively is a long-term issue. Five high-density storage centres were actually built as a

cost-saving response to the original pressures on space regardless of collection development coordination. These containers each hold approximately 2 million volumes and act as regional centres for the universities. They are based at Ohio State and Ohio University, Miami University, Bowling Green, and NEOUCOM and are funded by the state and local money. They hold multiple copies of old, rarely used material and each volume is on the catalogue and accessible. Unsurprisingly the major universities are the major users of the service. At present there is no requirement to save the last copy of a book. There is no state-wide preservation programme, nor does there appear to be any likelihood of such a development in the future.

In terms of collaborative acquisition, all members can view the catalogue and therefore make purchase decisions based on existing holdings. A state-wide approvals plan also means members can see what is already on order. This is an aspect of the service that is slowly evolving. There is however no greater commitment to co-operative purchasing. Tom Sanville describes this, as 'the last frontier.' His view is that despite all the electronic developments 'the mentality of a core physical on-site book collection is still dominant.'

Joint Licensing

The Electronic Journal Center (EJC) is OhioLINK's collection of full-text research journals. OhioLINK researchers can register to be notified by email about new relevant articles according to subject, author, or journal title. The OhioLINK Electronic Thesis and Dissertation site provides a statewide depository for electronic theses and dissertations. The OhioLINK site is affiliated with the national Electronic Thesis and Dissertation movement and is linked to the Networked Digital Library of Theses and Dissertations.

Joint licensing of databases began in the early 90's when 40 standard indexes and citation databases were loaded onto the OhioLINK system. Electronic journals were introduced in 1998. It currently includes collections from 17 publishers and over 4,000 titles. A priority has been to maintain control of delivery and to this end OhioLINK has licensed its own software platform to ensure integration of resources. All licences are negotiated on behalf of the group. This year the total cost for the 17 licences is \$20 million (£14 million). 85 per cent of this comes from the libraries, 15 per cent from OhioLINK. The collective buying power of the

consortium has provided far more than any individual library could provide. Licence fees are negotiated for perpetual use and the system now has 2.8 million articles on archive. One of the difficulties encountered with joint licensing has been that each licence involves different financial arrangements that evolve differently and are not easy to break down. However now OhioLINK has 3 years data they are starting to renegotiate licences to reflect usage. Specifically they wish to have the ability to drop a number of titles for a corresponding reduction in licence fees if financial conditions require it.

OhioLINK is beginning to move beyond access to just print materials. Their latest development is the Digital Media Centre (DMC) which provides widespread access to images, sounds, video, numeric data, and other types of media information for the community and the world. OhioLINK negotiates licences with commercial sources, although to date there is not as rich a set of resources available. It includes 40,000 historical maps, Landsat 7 satellite images, and 60,000 art and architecture images, a new history database and a physics database of 600 experiments. Users are able to search and browse for media files via the web by attributes such as date, title, or creator. Thumbnail images and other previews are available for users to view prior to downloading files.

Most recently OhioLINK has begun to access e-books from the system. The bibliographic records of 24,000 e-books have been available in the OhioLINK central catalog beginning in April 2001. A collection of 150 ABC-CLIO reference e-books will be loaded on the OhioLINK system in 2002. A wide collection of full text literature from Chadwyck-Healey has been on the system for some time.

Bibliographic access and Inter-library lending

At the heart of OhioLINK are bibliographic access and the inter-library lending system. OhioLINK offers access to more than 31 million library items state-wide. To date, the OhioLINK central catalogue contains more than 8 million unique master records from its 79 institutions, encompassing a spectrum of library material including law, medical and special collections. The catalogue systems throughout the state provide capacity for more than 4,500 simultaneous users. The OhioLINK central catalogue also is available to outside users through the Internet. OhioLINK offers user-initiated, non-mediated online borrowing through its

state-wide central catalogue. Students and staff have the ability to request items electronically while searching the OhioLINK central catalogue. It also provides a delivery service among member institutions to speed the exchange of library items.

A number of key decisions were made at the inception of OhioLINK that have influenced the development of the system. First, the system is based on a central catalogue with maximum integration of resources. All members use the same local system and therefore Z39.50 is not an issue. Second, it was decided the system should be patron-driven. Third, the system would be run on a real-time basis. The result has been a user-initiated circulation function in which users request a book that is available from any of the other institutions using the circulation system rather than the traditional inter-library loan unit. The goal is for delivery within two days. Transport costs per trip are estimated at 34 cents.

Initially common rules had to be established to cover length of borrowing, number of items etc. The result has been a dramatic increase in activity. User borrowing has grown from 50,000 per annum in 1991 to 500,000 per annum in 2000. One million items are now travelling around the state annually. Everybody is borrowing more. Over one third of the activity is undergraduate borrowing. Formerly this group borrowed next to nothing. Each year borrowing patterns are re-assessed and the system adjusted to balance net borrowing and lending. In this way since the creation of OhioLINK no-one has ever complained that the system discriminates against them.

Management and financial arrangements

The OhioLINK Governing Board is responsible for the management of the OhioLINK programme on behalf of the Ohio Board of Regents. The governing board approves the strategic directions and financial expenditures of the programme. It meets 6 times per year to review the progress of the programme and approve future initiatives and expenditure. The board consists of 13 voting members, nine from universities, 3 from community colleges, and one from independent colleges. Ex-officio members representing technical, library, and board of regents' perspectives also participate on the board.

There are fifteen members of staff under the leadership of Tom Sanville, Executive Director operating from a central headquarters. The total budget, including capital, for OhioLINK in 2001-02 is \$11

million (£7.75 million). This is top sliced from the state higher education budget. This year the budget shows no growth for the first time since the creation of OhioLINK in the early 90's. The management are now having to grapple with the implications of a frozen budget and make choices as to which activities and/or resources will be curtailed. The likely targets for reductions are some of the reference databases and citation databases. It is felt these are the resources which can most easily be eliminated, since they can also most easily be reintroduced.

Success and effectiveness

Effectiveness

- OhioLINK has failed to make as much progress to date in collection development or management as some would like to see. This is a priority amongst consortium members, but like other libraries, surmounting the view of their own physical on-site collection as paramount is difficult to overcome in practice.
- The consortium has not developed a preservation or retention programme, except to store little used material in one of five high-density stores. There is no policy, by design, to preserve the final copy of a title. The member institutions have not felt the need to change this policy.
- The experience of OhioLINK members has been that users will access the web rather than use the consortium sources and therefore may not find the best material nor make best use of the resources available. Thus emphasis is on improving user interfaces and services to make them as attractive as possible versus other web resources.

Successes

- The existence of a central body to fund higher education ensured the identification at an early stage of the scale of the storage problem state-wide. It then facilitated the creation of OhioLINK, using top-sliced money.
- A professionally staffed central headquarters to operate the system has driven the scale and pace of change and development.
- The decision at an early stage to create a central catalogue using a common library system allowed maximum integration of resources. It has also ensured that potential inequalities in

borrowing and lending can be adjusted over time to the benefit of all member institutions.

- Real economies of scale and time have been realised by negotiating licensing contracts on behalf of all the consortium members.
- The geography of the state of Ohio has facilitated collaboration. The state is a neat size, allowing transport systems to operate easily and constituent members to meet frequently.

Sources:

KOHL, D How the virtual library transforms interlibrary loans – the OhioLINK experience, *Interlending and document supply* 26 (2) 1998 65-69

KUEHN, J *We're still here: traditional ILL after OhioLINK patron-initiated requesting and e-journals*, 67th IFLA Council and General Conference 2001

SANVILLE, T and WINTERS, B.A. A method out of the madness: OhioLINK's collaborative response to the serials crisis, *The serials' librarian* 34 (1/2) 125-139

SANVILLE, T. Use of electronic journals in OhioLINK's electronic journal center, 67th IFLA Council and General Conference 2001

SANVILLE, T. *A method out of the madness: OhioLINK's collaborative response to the serials crisis, Four years later – progress report*
www.ohiolink.edu The Ohio Library and Information Network - overview

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BIBLIOGRAPHY

General

CONNOLLY, P., 2001. Interlending and document supply: a review of recent literature XXXIX. *Interlending & Document Supply* **29** (1) pp. 28-36.

GOULD, S., 2000. Interlending and document supply: a review of recent literature XXXVIII. *Interlending & Document Supply* **28** (3) pp. 143-150.

HUGHES, C.A., 1999. Resource sharing. In LINE, M. et al (eds), *Librarianship and information work worldwide*. London: Bowker Saur. pp. 209-242.

O'CONNOR, S, WELLS, A AND COLLIER, M 2001 . *A study of the collaborative storage of library resources*. British Library http://www.bl.uk/concord/pdf_files/blhe-colstor.pdf

Australia

ALLEN, P., 1994. Collecting Westraliana: issues in Western Australian area studies librarianship. *Australian Library Review* **11** (4) pp. 437-44.

AWCOCK, F., 2000. *Storage repositories in Australia*. Paper presented to IFLA Section on Library Storage, 13th August 2000. Available URL <http://www.ifla.org/VII/dg/dgrsl/australi.htm>

BOWER, G., 1991. Library cooperation: the Australian Council of Libraries and Information Services. *Australian Academic and Research Libraries* **22** (4) pp. 31-36.

BYRNE, A. 1997. *After the DNC: establishing a sustainable information environment for research and scholarship in Australia*. National Scholarly Communications Forum. Round Table No. 7. The Distributed National Collection. Available URL <http://www.caul.edu.au/nscf/byrne.htm>

- CAMPBELL, D., 2000. Picture this: a working combination of Z39.50, the Dublin Core and MARC21. Available URL <http://www.alia.org.au/conferences/alia2000/authors/debbie.campanbell.html>
- ELLIOTT, V., 2001. *National site licensing*. National Scholarly Communications Forum. Round Table No. 12. Structures of Scholarly Communication. Available URL <http://www.caul.edu.au/nscf/elliott-nsl.doc>
- GREENWAY, J., 1997. Interlending and document supply in Australia: the way forward. *Interlending and Document Supply* **25** (3) pp. 103-107
- HAYES, H., 1993. The Distributed National Collection: a university perspective. *The Australian Library Journal* **42** (1) pp. 8-12.
- KYRILLIDOU, M., 1999. New collections: new marketplace relationships. *Resource Sharing and Information Networks* **14** (1) pp. 61-75.
- NATIONAL LIBRARY OF AUSTRALIA., 2001. *Progress Review of Kinetica: Australia's library network*. Canberra: NLA Available URL <http://www.nla.gov.au/kinetica/ProgressReview.html>
- NATIONAL RESOURCE SHARING WORKING GROUP, 2001. *Australian InterLibrary Resource Sharing Code*. Canberra: NLA. <http://www.nla.gov.au/initiatives/ilrscodex/index.html>
- SHIPP, J., 1998. *Council of Australian University Librarians*. Paper presented at 64th IFLA General Conference, 16th-21st August 1998. Available URL <http://www.ifla.org/IV/ifla64/162-83e.htm>
- SHIPP, J., 1997. *Identifying the issues*. National Scholarly Communications Forum. Round Table No. 7. The Distributed National Collection. Available URL <http://www.caul.edu.au/nscf/shipp7.htm>
- SLACK, F. and ROWLEY, J., 1999. Pathways to knowledge: a perspective on information and knowledge delivery in Australia. *Journal of librarianship and information science* **31** (4) pp. 197-203
- WEBB, C., 2000. Preservation of electronic information: what we should be thinking about now. *IFLA Publications* **91** pp. 13-25

Personal Communications and websites

CAMPBELL, D., 2001. Brief overview of national collaborative activities, with a particular focus on the National Library of Australia. Email attachment to Margaret Wallis, sent 11th September 2001.

BOWER, G. 2001. Telephone conversations with Audrey Marshall, 30th October and 2nd November.

COSTELLO, D., 2001. The role of CAUL in consortial publishing. Unpublished draft for the Journal of Library Administration. Email attachment to Audrey Marshall, sent 28th October 2001.

COSTELLO, D. 2001. Emails to Audrey Marshall, sent 28th October, 2nd and 26th November.

HAYES, H., 2001. CAUL. Unpublished paper. Email attachment to Audrey Marshall, sent 14th November 2001.

HAYES, H., 2001. Email to Audrey Marshall, sent 25th November 2001

HENDERSON, S. 2001. Emails to Margaret Wallis, sent 17th October 2001 and Audrey Marshall, sent 29th November 2001.

LAW, C., 2000. Email to Margaret Wallis, sent 28th March 2000

Websites

Australian Cooperative Digitisation Project – a collaborative initiative for the digitisation of print materials
<http://www.nla.gov.au/ferg/>

Australian Digital Theses Program <http://adt.caul.edu.au/>

Australian Library Collections Task Force - issues of access to print monographs and serials
<http://www.nla.gov.au/initiatives/alctf/index.html>

Australian Subject Gateways Forum (ASGF)
<http://www.nla.gov.au/initiatives/sg/>

Council of Australian University Librarians (CAUL)

<http://www.caul.edu.au/>

CAUL Electronic Information Resources Committee

<http://www.caul.edu.au/datasets>

CASL (Council of Australian State Libraries Consortium)

<http://www.caslconsortium.org/>.

Digital Services Project - long-term retention issues

<http://www.nla.gov.au/dsp/>

InterLibrary Resource Sharing code

<http://www.nla.gov.au/initiatives/ilrscodex/index.html>

Kinetica – bibliographic access <http://www.nla.gov.au/kinetica/>

National benchmarking survey

<http://www.nla.gov.au/initiatives/nrswg/benchmarking.html>.

National Resource Sharing Working Group (NRSWG) - Inter-Library

Loans <http://www.nla.gov.au/initiatives/nrswg/>

National Resource Sharing Policy Committee – direction for the

NRSWG <http://www.nla.gov.au/initiatives/nrspc/>

PADI - preserving access to digital materials

<http://www.nla.gov.au/padi/>

PANDORA - policy, guidelines and procedures for the preservation and provision of access to Australian online digital publications

<http://pandora.nla.gov.au/index.html>

REGIONAL *initiatives in Australia*

CAVAL <http://www.caval.edu.au/>

UNISON <http://www.unison.uts.edu.au/>

Our Digital Island - the State Library of Tasmania web preservation

site <http://www.statelibrary.tas.gov.au/odi/>

Canada

CASE, M.C., 1999. Canadian national site licensing project funded. *ARL Bimonthly Report* **205** Available URL <http://www.arl.org/newsltr/205/index.html>

ELECTRONIC COLLECTIONS COORDINATING GROUP.
NATIONAL LIBRARY OF CANADA. 1998. *Networked electronic publications: Policy and Guidelines*. Available URL <http://www.ncl-bnc.ca/9/8/index-e.html>

GROEN, F.K., 1994. Resource sharing in a changing library environment: strategies and policies in a Canadian Research Library. *Publications of Essen University Library*. **17** pp.173-186.

KRYM, N. and VANBUSKIRK, M., 2001. Resource-sharing roles and responsibilities for CISTI: change is the constant. *Interlending and Document Supply* **29** (1) pp. 11-16

LUNAU, C.D., 1999. Canadian resource sharing at the close of the 20th century. *National Library News* **31** (11) Available URL <http://www.ncl-bnc.ca/nl-news/1999/nov99e/3111-18e.htm>.

LUNAU, C.D., 2001. A Canadian information resources sharing strategy. *National Library of Canada Bulletin* **33** (4) Available URL <http://www.ncl-bnc.ca/9/2/p2-0107-07-e.html>

NATIONAL LIBRARY OF CANADA. 1997. *Canadian initiative on digital libraries: a national alliance*. Available URL <http://www.ncl-bnc.ca/cidl/cidldese.htm>

NATIONAL LIBRARY OF CANADA. 1999. *Resource sharing*. Available URL <http://www.ncl-bnc.ca/resource/resha-e.htm>

NATIONAL LIBRARY OF CANADA. 2000. About the *Canadian initiative on digital libraries (CIDL)*. Available URL <http://www.ncl-bnc.ca/cidl/aboute.htm>

NATIONAL LIBRARY OF CANADA. 2001. *Preservation and access*. Available URL <http://www.ncl-bnc.ca/8/14/r14-213-e.html>

NATIONAL LIBRARY OF CANADA. 2001. *About the Union catalogue*. . Available URL <http://www.ncl-bnc.ca/6/21/indexe.html>

TURKO, K., 1996. Preservation activities in Canada: a unifying theme in a decentralised country. *LIBER Quarterly* **6** pp. 117-147

Denmark

BJOERNSHAUGE, L., 1999. Consortia building and electronic licensing as vehicles for re-engineering academic library services: the case of the Technical Knowledge Center and Library of Denmark (DTV). *Issues in Science and Technology Librarianship*. Available URL <http://www.library.ucsb.edu/istl/99-spring/article5.html>

BJOERNSHAUGE, L., 1999. Opinion paper: from interlending and document delivery to co-operative collections and document access. *Interlending and Document Supply* **27** (1) pp. 30-32.

CLAUSEN, H., 1997. The business of national bibliography: an example of cooperation between public and private institutions. *Business Information Review* **14** (1) pp. 27-35

FONSS-JORGENSEN, E., 1998. Network access to the audiovisual cultural heritage – possibilities and problems. *Interlending and Document Supply* **26** (4) pp. 171-174.

LARSEN, S. B., 1997. Teaching preservation management in large research libraries. *LIBER Quarterly* **7** pp. 518-528.

MARK, N., 2001 Introduction to the theme: university libraries and partnership 67th IFLA Council and General Conference, Boston, 16-25 August 2001

WANECK, K., 1998. Public/private sector relationships in the production of national bibliographies: the Danish model. *KBC* **27** (1) pp. 13-16

Europe General

FISHER, R.A. and TUCK, B., 1997. Issues in electronic document delivery. *Interlending and Document Supply* **25** (1) pp. 18-24.

SMITH, R., 1989. European National Libraries and CD-ROM: a co-operative project. *Vine* **76** pp. 24-26.

SALOMONSEN, A., 1993. The European National Libraries co-operative project on CD-ROM: results, experiences and perspectives. *Alexandria* **5** (3) pp. 193-200

Finland

VATTULAINEN, P., 1994. Managing the Finnish National Repository Library. *Library Management* **15** (7) pp. 10-15

SODERGARD, P., 1996. Why does Finland make so many international ILDS requests? *Interlending and Document Supply* **24** (3) pp. 12-16.

Germany

ENDERLE, W., 1996. Shared digital collection development: the first steps to the virtual library. *LIBER Quarterly* **6** pp. 367-382.

KYRILLIDOU, M., 1999. New collections: new marketplace relationships. *Resource Sharing and Information Networks* **14** (1) pp. 61-75.

LEHMANN, K-D., 1995. The information highway and the cultural heritage: thoughts on a concept for Die Deutsche Bibliothek. *LIBER Quarterly* **5** pp. 431-439.

LEHMANN, K-D., 1996. Die Deutsche Bibliothek as competence centre. *LIBER Quarterly* **6** pp. 262-269.

RATCLIFFE, F. W., 1995. German acquisitions policies: library problems before and after reunification. *Focus* **26** (3) pp. 135-146.

RUSCH-FEJA, D., 1998. A virtual national library of education? German libraries cooperate to support education. *INSPEL* **32** (4) pp. 243-261.

ZICK, W 1999a Electronic document delivery in the Federal republic of Germany. *In: Study on international sharing of Japanese scholarly information*. NACSIS 169-174

ZICK, W 1999b German projects related to digital libraries. *In: Study on international sharing of Japanese scholarly information*. NACSIS 181-187

Italy

GIORDANO, T., 2000 Digital resource sharing and library consortia in Italy. *Information Technology and Libraries* **19** (2) pp. 84-90

Japan

TANAKA, H., 2001 Present state and future of international exchange of publications in the National Diet Library. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*

The Netherlands

BAKKER, T., 1999. *Resource sharing in a virtual library environment: user oriented collection management*. Available URL <http://www.kb.nl/kb/vak/publ/resovirt.html>

BAKKER, T., 2001. *Van profilering naar samenwerking*. Available URL <http://www.kb.nl/kb/bst/cvc/handr.html>

KYRILLIDOU, M., 1999. New collections: new marketplace relationships. *Resource Sharing and Information Networks* **14** (1) pp. 61-75.

PEEREBOOM, M., 2000. DutchESS: Dutch electronic subject service: a Dutch national collaborative effort. *Online Information Review* **24** (1) pp. 46-49

UKB. 1999. *Policy statement by academic libraries on the pricing of scholarly journals*. Available URL

<http://www.uba.uva.nl/en/projects/journals-pricing-ukb/policy.html>

UNIVERSITY OF TILBURG LIBRARY. 1997. *Licensing principles: guidelines and checklist for libraries*. Available URL <http://cwis.kub.nl/~dbi/english/license/licprinc.htm>

RICHARDS, P.S., 1995. "The upset balance": the Dutch academy report on the distortions in national library resources caused by the prioritization of science. *Alexandria* **7** (3) pp. 171- 178

Personal Communications and websites

DELTA. Dutch Electronic Library Technology Association. Available URL <http://www.pica.nl/en/about/projects/delta.shtml>

DutchESS. The Dutch electronic subject service. Available URL <http://www.kb.nl/dutchess/>

IWI. Scientific Information Supply. Available URL <http://www.surf.nl/iwi/englishintro.html>

Pica. Available URL <http://www.pica.nl/en/about/>

Nordic – General

HALLBERG, P., 1991. Retrospective conversion: Scandinavia. *European Research Libraries Cooperation*. **1** (1) pp. 25-34

PHILIPSON J. (ed), 2001. *The second Nordic-Baltic Repository Library meeting*. Available URL http://www.nordinfo.helsinki.fi/publications/nordnytt/nnytt1_01/philipson.htm

Personal Communications and websites

NDLC - the Nordic Digital Library Centre. Available URL http://www.inf.vtt.fi/nordinfo-unesco/more_ndlc.htm

NorDEP – the Nordic Centre of Excellence for electronic publishing. Available URL http://www.inf.vtt.fi/nordinfo-unesco/more_nordep.htm

Nordinfo. Available URL <http://www.inf.vtt.fi/nordinfo/index/htm>

Nordinfo and the 3 Centres of Excellence in Information Technology. Available URL <http://www.inf.vtt.fi/nordinfo-unesco/>

Spain

ANGLADA, L.M., 1999. Working together, learning together: the consortium of academic libraries of Catalonia. *Information Technology and Libraries* **18** (3) pp. 139-144.

CARO, C., 1998 The electronic library in Spain. *LIBER Quarterly* **8** (3) 298-318

HERNANDEZ, F. and LLORENS, J. 1997. Exploiting national resources: serials in Spain. *Serials*. **10** (1) pp. 95-102.

Sweden

HALLBERG, P., 1989. Coordination, reorganization, automation. *Outlook on Research Libraries*. **11** (2) pp. 8-10.

NILSSON, K., 1994. BIBSAM and its role in coordination and support of Swedish Research libraries. *Alexandria* **6** (1) pp. 63-71

NILSSON, K. *Coordination of licence agreements in Sweden with some reference to the Nordic situation* Consortia Workshop, Budapest, 10-11 November 2000
<http://www.kb.se/bibsam/dbupphdl/arkiv/pp/budapest.htm>

NILSSON, K., 1999. BIBSAM's licensing of databases for Swedish universities. *DF-Revy* **22** (2) pp 33-34.

PERSSON, T., 1995. *Cooperation and resource sharing: joint initiatives by the Swedish Universities of Technology libraries*. Available URL

<http://educate.lib.chalmers.se/IATUL/proceedcontents/abs196/Persson.html>

Personal Communications and websites

BIBSAM - Available URL

<http://www.kb.se/bibsam/english/first.htm>

USA

ASSOCIATION OF RESEARCH LIBRARIES, 1999 The crisis in libraries' collection coverage of global publishing: an update. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **206** (December 1999) <http://arl.org/newsltr/206/crisis.htm>

ALLEN, B. M., 1997 Negotiating digital information system licences without losing your shirt or your soul. *Journal of Library Administration* **24** (4) 15-26

ALLEN, B. M. 1999 Consortia and collections: achieving a balance between local action and collaborative interest. *Journal of Library Administration* **28** (4) 85-90

ALLEN, B. M., 1999 The CIC: using collaboration to advance high technology initiatives. *D-Lib Magazine* February 1999
<http://www.dlib.org/dlib/february99/02allen.html>

BERNBOM, G. 1998 Institution-wide information strategies: a CNI initiative. *Information Technology and Libraries*. **17** (2) 87-92

BRANIN, J. *et al.* 1999. *The changing nature of collection management in research libraries*. Revised draft for publication. Available URL <http://www.arl.org/collect/changing.html>
[Accessed 15 November 01]

CASE, M. M., 1997 Library associations endorse principles for licensing electronic resources. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **194** (October 1997)
<http://arl.org/newsltr/194/licensing.html>

CASE, M.M. and JAKUBS, D., 2000 Building the global collection – World class collection development: a chronicle of the AAU/AAU

Global Resources Program. *Journal of Library Administration* **29** (3/4) 237-254

COFFMAN, S., 2000 Big 12 Plus libraries and OCLC join forces on Web-based ILL system. *Information Today* **17** (3) 20-21

CROWLEY, G. H., 1999 Unmediated document delivery: a project using FirstSearch and EBSCOdoc. *Interlending and Document Supply* **27** (3) 122-127

CULKIN, P. and WARD, S., 1985 The CARL system. *Library Journal* February 1985 64-66

DEEGAN, M., 1999 *Projects and initiatives, USA*
<http://www.kcl.ac.uk/humanities/cch/malibu/reports/projus.htm>

DEISS, K. J., 1999 From independence to interdependence: shifting organisational cultures. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **206** (December 1999)
<http://arl.org/newsltr/206/cultures.htm>

EUSTIS, J. and others, Virginia Tech report: CNI's assessing the Academic Networked Environment Project. *Information Technology and Libraries*. **17** (2) 93-99

FARR, G. and MARCUM, D. 2001 Preservation in the USA: a case study in cooperation. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*

FEDUNOK, S., 1997 A perspective on US cooperative collection development. *INSPEL* **31** (2) 47-53

FULLER, D. H., 1998 Interlibrary loan reciprocal/consortium agreements: how important are they? *Journal of Interlibrary Loan, Document Delivery and Information Supply* **9** (1) 13-19

GEFFNER, M. and MACEWAN, B., 1998 A learning experience: the CIC electronic journals collection project. *Serials Librarian* **33** (3/4) 271-277

GREEN, D., 1998 The national initiative for a networked cultural heritage. *Information Technology and Libraries* **17** (2) 107-108

GUTHRIE, K.M., 1998 JSTOR and the University of Michigan: an evolving collaboration. *Library Hi Tech.* **16** (1) 9-14, 36

HARTMAN, A. and others, 1997 Enhancing access to agriculture and other extension materials: a cooperative project at Kansas State University. *Quarterly Bulletin of the International Association of Agricultural Information Specialists* **42** (3/4) 243-249

HARTMAN, C. N., 2000 Storage of electronic files of federal agencies that have ceased operation: a partnership for permanent access. *Government Information Quarterly.* **17** (3) 299-307

HAZEN, D., 1997 The Latin Americanist Research Resources Project: a new direction in monographic cooperation. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **191** (April 1997) <http://arl.org/newsltr/191/latin.html>

JACKSON, M. E., 1997 The North American interlibrary loan and document delivery project: improving ILL/DD services. *Interlending and Document Supply* **25** (1) 8-10

JACKSON, M. E., 1999 Strengthening access to overseas library collections. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **206** (December 1999) <http://arl.org/newsltr/206/access.htm>

JACKSON, M. E., 2000 Meeting the challenges of international lending and document supply: learning from the Global Resources Program. *Interlending and Document Supply* **28** (2) 79-85

JACKSON, M. E., 2001 Improving interoperability of interlending and document delivery systems. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*

KEYHANI, A., 1999 Coping with the digital shift: four of the thorniest issues. *The Serials Librarian.* **36** (1/2) 149-162

KILPATRICK, T. L. and PREECE, B.G., 1996 Serial cuts and interlibrary loan: filling the gaps. *Interlending and Document Supply.* **24** (1) 12-20

KOHL, D. F., 1998 How the virtual library transforms interlibrary loans – the OhioLINK experience. *Interlending and Document Supply* **26** (2) 65-69

- KUEHN, J., 2001 Traditional ILL after OhioLINK Patron-initiated requesting and Ejournals. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*
- LANDESMAN, M. and VAN REENAN, J. 2000. Consortia vs reform: creating congruence. *Journal of Electronic Publishing*. **6** (2) December. Available URL <http://www.press.umich.edu/jep/06-02/landesman.html> [accessed 15 November 2001]
- LAWRENCE, G.W., 1998 Building digital collections of government information: the Mann Library/ USDA Partnership. In: J. F. CHEVERIE, ed. *Government information collections in a networked environment: new issues and models*. The Haworth Press, 49-60
- MANDEL, C. A., 1996 Enduring access to digital information; understanding the challenge. *European Research Libraries Cooperation: The LIBER Quarterly*. **6** (4) 453-464
- MASSIE, D., 2000 The international sharing of returnable library materials. *Interlending and Document Supply* **28** (3) 110-116
- OWEN, J. M., 1996 Preservation of digital materials for libraries. *European Research Libraries Cooperation: The LIBER Quarterly* **6** (4) 435-452
- PAYNE, L., 1998 The Washington Research Library Consortium: a real organisation for a virtual library. *Information Technology and Libraries*. **17** (1) 13-17
- PREECE, B and THOMPSON, J., 2001 Union catalogs and virtual union catalogs - repositioning interlibrary loan. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*
- REED-SCOTT, J., 1996 Scholarship, research libraries and global publishing. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **184** (February 1996)
<http://arl.org/newsltr/184/uc.htm>
- SANVILLE, T. J., 2001 Use of electronic journals in OhioLINK's Electronic Journal Center. *67th IFLA Council and General Conference, Boston, 16-25 August 2001*

SCHRIAR, S., 1998 The SILO Program: the continued growth and strength of the Serials Illinois Union List. *Illinois Libraries* **80** (3) 171-173

SHAUGHNESSY, T. W., 1994 Resource sharing and the end of innocence. *Journal of Library Administration* **20** (1) 3-17

SHLAES, N.C., 1996 Cooperative collection management succeeds in Illinois. *Resource Sharing and Information Networks*. **12** (1) 49-53

SIMPSON, D. B., 1998 Economics of cooperative collection development and management: the United States' experience with rarely-held research materials. *IFLA Journal* **24** (3) 161-165

SOETE, G., 1997 UC system launches California Digital Library. *ARL: A Bimonthly Newsletter of Research Library Issues and Actions* **193** (August 1997) <http://arl.org/newsltr/193/uc.html>

STAM, D. H., 1986 Collaborative collection development: progress, problems and potential. *Collection Building* **7** (3) 3-8

STAM, D. H., 1991 Organised preservation programs in the United States. *European Research Libraries Cooperation: The LIBER Quarterly* **1** (2) 228-229

SWANEKAMP, J., 1998 The changing cataloguing culture: what do we mean when we talk about cataloger values? *Cataloging and Classification Quarterly* **26** (3) 51-55

TABB, W., 1995 Providing collaborative access to German political science and historical resources: a pilot project of the Association of Research Libraries. *European Research Libraries Cooperation: The LIBER Quarterly* **5** (2) 183-191

TOMLINS, C. L., 2001 Just one more 'zine? Maintaining and improving the scholarly journal in the electronic present: a view from the humanities. *Learned Publishing*. **14** (1) 33-40

TOY-SMITH, V., 1998 Core records: is this the answer to cooperative cataloging? *Journal of Educational Media and Library Sciences* **36** (2) 143-161

TULIP, 1996 *The University Licensing Program (TULIP) Final report*
<http://www.elsevier.nl/homepage/about/resproj/trmenu.htm>
[Accessed 12 September 2001]

UNIVERSITY LIBRARIES AND SCHOLARLY COMMUNICATION,
1996 Resource sharing: collection development and document
delivery. *Journal of Library Administration* **23** (3/4) 169-177

VAN DE SOMPEL, H. and LAGOZE, C., 2000 The Santa Fe
Convention of the Open Archives initiative. *D-Lib Magazine* **6** (2)
Available URL <http://www.dlib.org/dlib/february00/vandesompel-oai/02vandesompel-oal.html> [accessed 28 September 2001]

VIKOR, D.L *et al* 1997 Building electronic cooperation in the
1990s – the Maryland, Georgia and Texas experiences. *Journal of
Academic Librarianship* **23** (6) 511-514

WILDING, T., 2001 External partnerships *67th IFLA Council and
General Conference, Boston, 16-25 August 2001*

WITTENBERG, K., 2001 The Electronic Publishing Initiative at
Columbia (EPIC): a university-based collaboration in digital
scholarly communication. *Learned Publishing* **14** (1) 29-32

WOLF, M. T. and BLOSS, M. E., 1998 Without walls means
collaboration. *Information Technology and Libraries*. **17** (4) 212-
215

ZILPER, N., 2001 USA-Russia library materials exchanges: past,
present and future. *67th IFLA Council and General Conference,
Boston, 16-25 August 2001*

Personal Communications and websites

ISI 2001. *The US Government and ISI collaboration forges ahead.*
Available at:
<http://www.isinet.com/news/features/naval/naval.html>.
[Accessed 24 September 2001]