Digital Libraries in the Nordic Countries: Practical Examples for the Creation and Development of ‘Libraries Without Walls’ from the Nordic Africa Institute Library and Other Libraries within the Nordic Countries

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Computerised Library Catalogues

Libraries in the Nordic European countries (Denmark, Finland, Iceland, Norway and Sweden) began the process of digital library building some 20-30 years ago with the implementation of computerised library catalogues.

Sweden

In Sweden, the Royal library in Stockholm, together with university and special libraries, began compiling a common union catalogue, LIBRIS, in the mid-seventies. LIBRIS is used for cataloguing, searching and interlibrary loans. Once a record has been entered into the system in the full MARC 21 format, it becomes possible for other libraries to add local information to it, and then for such a record to be downloaded for use by regional or domestic library systems.

LIBRIS comprises approximately 5 million items housed in 300 libraries, and is searchable on the Web without any cost. Its interlibrary loan facility is currently used by 1,200 Swedish libraries and by more then 230 libraries throughout the other Nordic countries. The most recent development is that library users can order books directly, simply by completing a form on the web.

This computerised master catalogue has seen several changes over the years which have come about largely as a result of technological advancement, making it possible to find innovative ways to solve problems and upgrade the system as a whole. What remains constant, however, is the fundamental principle of cooperation and collaboration amongst libraries, and the enormous advantages to be gained from this type of intercommunication.

Iceland

Most libraries in Iceland have been part of the same library system, Gegnir, since 2003. Based on ALEPH software, Gegnir hosts the union catalogue of all Icelandic libraries, and is accessible on the Web. Here, for example, you will find the catalogues of university libraries and of Iceland's National Library. The national bibliography is also included, as is Reykjavik City Library's catalogue. University and public libraries in Iceland elected to cooperate on library automation from the very beginning. This was a sensible initiative given that Iceland is a very small country of only about 300,000 inhabitants with a profound need to use their resources efficiently.
**Denmark**

Danish libraries use bibliotek.dk, a database linking public and research libraries. The website is financed by the Danish government and run by the Danish National Library Authority. The Danish Bibliographic Centre is responsible for its development and maintenance. This source contains approximately 9 million items and is searchable from a Z39.50 interface. Requests for specific items, a very well-used facility, can be placed through local libraries via bibliotek.dk.

Large budget cuts in Denmark in recent years have resulted in economic crises for many libraries in that country. Certain libraries have been forced to close down altogether, while some of the smaller libraries have had to merge into bigger organisations.

**Finland**

Although Finland does not have a master library catalogue, the website, Libraries.fi, is available there, making it possible to locate Finnish library web catalogues. As far as Finnish local library systems are concerned, all governmental libraries in the country use the same software. Negotiations with library software companies in Finland are done on a national level. The advantage of buying a library system in this way is that it is highly cost effective.

**Norway**

In Norway, the library data centre, BIBSYS, is used as library software by Norwegian university libraries, the National Library, all college libraries in the country, and by many -- although not all -- of their research libraries. The BIBSYS Library database contains information about these libraries' holdings which collectively comprise approximately 8 million items in the form of books, periodicals, and more. The database is open for anyone and everyone to search, free of charge.

It is interesting to note here that Denmark, Finland and Norway do not have the same measure of cooperation regarding common library catalogues as is practiced in Sweden and Iceland.

**Building of Library Portals**

The building of library portals, or computer powered information entry points, has increased rapidly in recent years. This is a task involving various types of libraries, and is also one which requires library cooperation on a national scale. Denmark and Finland have made great strides in the process of portal construction while Sweden recently purchased technical software facilitating the installation of portals, at the national level.

**Denmark**

Denmark’s Electronic Research Library (DEF) is a national infrastructure for research and education in Denmark. It is a cooperative effort between the Danish Ministries of Culture, and of
Science, Technology and Innovation. The DEF co-ordination committee is made up of representatives from both ministries. Its purpose is to establish a single, coherent and simple entrance to Danish research libraries.

The entrance, deff.dk, is undertaken with close collaboration between Danish research libraries. DEF hosts a number of projects and progressive assignments in the fields of IT, research, education and library development. The overall aim of these activities is to improve the application of IT with a view to supporting research and education. The seven DEF programme areas are user facilities, digitisation, e-learning, e-publishing, licences, portals and system architecture.

Some examples of services offered by deff.dk are:

- **Link collection** [http://links.deff.dk?lang=en] - search in quality assessed websites selected by subject specialists
- **Journals** [http://tidsskrifter.deff.dk/?lang=da] - search in 9,000 electronic journal titles
- **Research database** [http://forskningsbasen.deff.dk/?lang=en] - search in Danish research projects and results

'Biblioteksvagten.dk', a Danish project, took off in 1998 as a cooperative effort between public and school libraries in that country. The purpose of the project was to put an online information service to the test. The idea of the resource was that users would be able to access and make use of the service either via the library itself, or by contacting an on-duty librarian at home (telework). The intended target group included local end-users, although users from network libraries further field were also served.

In spite of the fact that this first attempt failed, it served, nevertheless, to form the basis of the Virtual Reference Service, BiblioteksVagten, a joint service of public and research libraries at deff.dk in Denmark. The purpose of this information support system was to integrate public and research libraries by affording users the opportunity of acquiring information through direct dialogue -- by chatting online with a librarian -- or by completing an online query form. A survey was conducted in 2002 to investigate who the users of BiblioteksVagten were, and how to assess the functionality and quality of this service.

**Finland**

The National Electronic Library, FinELib is a consortium of libraries from universities, polytechnics, research institutes and the National Library of Finland, which is responsible for the day-to-day operation and development of these libraries. FinELib acquires material for research, education and studies, and finds new and more effective ways of making the material readily available. In addition, it gathers Finnish and international resources to support teaching, learning and research. Moreover, FinELib negotiates user-rights agreements for electronic resources on a centralised basis via the Helsinki University Library,
The concept of national cooperation in FinELib is very strong. The service is developed together with participating libraries and with national projects such as the Virtual University Project, the HSTYA Project (Electronic Identification of Persons in Universities and Polytechnics), and with certain other projects dealing with the acquisition of online publications.

FinELib has emphasised international cooperation from the start and works in close collaboration with related Nordic projects. It has also worked towards the development of similar networks with other countries. The overall conclusion drawn from this project, to quote from FinELib's own website, is, ‘International cooperation has become standard in connection with licencing and in the development of electronic libraries.’

International examples can be found at:

- ICOLC <<http://www.library.yale.edu/consortia/>>
- SPARC Europe <<http://www.sparceurope.org/>>
- SPARC <<http://www.arl.org/sparc/>>

**Sweden**

The Royal Library in Stockholm has chosen Metalib and SFX from Fujitsu as their software for the National Library portal in Sweden, intended to work in conjunction with the Swedish master library catalogue, LIBRIS. This portal is a national consortium based on a singular membership of all of the libraries combined. There is one specific entry point on the Web, with the added possibility of individual libraries being able to choose their own settings. The goal of this national portal is to enable a simple and rational information support system for students, researchers and the general public. It is intended to be up and running by January 2005.

**E-media and databases**

Throughout the Nordic regions cooperation amongst libraries and the existence of consortiums are the order of the day when purchasing e-media and certain journals. Most consortiums operate on a national level, although cases have come about of e-book agreements being entered into on a Pan-Nordic scale.

**Iceland**

In Iceland there is strong emphasis on the democratic right of access to information for all of its inhabitants. Thus, all licenced material can be made available to any user on the island on demand. Of course, the country's strong infrastructure enables easy Internet access, added to the fact that most Icelandic households own computers, thus making this viable in practice.

Hvar is the Icelandic nationwide access portal to electronic databases and e-journals. It contains more than 7,500 full-text journals and over 30 databases, as well as other licenced electronic resources.
Sweden

In Sweden, BIBSAM, the Royal Library in Stockholm, and the Department for National Co-ordination and Development together co-ordinate and develop the efficient provision of information for higher education, research and development. They are responsible for the signing of national licences for the use of commercial reference databases; databases containing facts; and for scientific journals. Swedish university libraries and public research institutes have joined together in a consortium and decide collectively upon those agreements into which they wish to enter.

These agreements are based on principles important to Swedish libraries, such as that libraries be allowed to provide copies of articles to other public financed libraries, and that there be free access to databases for visitors to the participating libraries’ so-called ‘walk-in-use’. Also important is that the system makes provision for the checking of IP numbers or domain names so that the database can be accessible from the entire university or organisation, irrespective of geographical location.

BIBSAM's experience is that not only do national agreements generally function more effectively, but also that they are more cost-effective since prices are lower when institutions join together in cooperative efforts.

When we, in Sweden, first started to work with national agreements on e-journals and databases, a simultaneous need arose for librarians to learn more about the legal and juridical considerations of such cooperation. In consequence, the Royal Library in Stockholm now offers a specialised service whereby librarians can ask questions and consult persons experienced in legal matters.

The Nordic Africa Institutes Library

Our physical library at the Nordic Africa Institute, situated in Uppsala, Sweden, is well used by patrons within the local region. However, our target group of researchers and students throughout the Nordic countries need to depend on our digital library. The construction and development of a user-friendly web page for our library, with its links to a great many resources, is an ongoing and time-consuming task.

The resources we offer are:

- NOAK, the Library catalogue
- A Guide to Africa on the Internet, a link collection
- Africanists in the Nordic countries
- Journals and magazines
- Bibliographic databases
- Library services: Ask the Librarian; Information services; Courses; Information for distance users
The Nordic Africa Institute library has been registering its holdings in the Swedish national database, LIBRIS, for at least 15 years. We use the MARC format and the Swedish adaption of the Anglo-American Cataloguing Rules for cataloguing. For indexing, we take subject headings from the ‘Macrothesaurus for Information processing in the field of Economic and Social Development’. The library catalogue, NOAK, was converted last year and now forms part of the African Studies database run by NISC, in South Africa. We are currently using ALEPH software for NOAK, our local library catalogue, although we download records from LIBRIS, the national database.

The advantages of using a worldwide range of library systems are indisputable. When we originally started, for instance, we used a system which can only be described as a 'homemade' product, having been designed with neither development nor progress in view. We find that problems arise to this day when upgrading our database, as a result of having begun with a system not based on international library standards.

A Guide to Africa on the Internet has been developing since 1996. Our intention is to use the need for a structured way of compiling electronic information sources and databases on Africa, available via the Net. By the ongoing process of evaluating the links we are constantly able to update, improve and expand this guide.

We have reached a point, however, where the development of the Internet Guide to Africa needs solutions which are both user-friendly and technically more efficient. To boost our abilities in this area we took part in the new project on national library portals starting in Sweden at the beginning of 2005.

The library at the Nordic Africa Institute has access to a number of bibliographical as well as full text databases. It also has free access to an increasing number of commercial information sources, bibliographical databases and scientific journals through collaboration with the Uppsala University Library and the National Library Cooperation, run by Sweden's Royal Library. In addition, the library's web pages are being developed continuously with new and user-friendly features. A special web entry point has been created in order to improve communications with, and to provide information for, distance users.

The biggest problem facing our distance users at present is that they are not allowed at all from using databases and e-resources owing to licence agreements. In this regard, borders are problematic for our library which is physically located in Sweden, but has a responsibility to serve users throughout all of the Nordic countries.

**Future developments and trends**

Libraries nowadays are being swept along by the enormous opportunities opening up to them for the sharing of resources and knowledge in the light of a fast-accelerating computer culture. Therefore, it is obvious that the future for the Nordic Africa Institute Library depends on our being linked to library catalogues and portals in all of the Nordic countries, this being the only
way in which we will be able to provide the most efficient and up-to-date service to all of our users - wherever they might be.

As mentioned above, the FinELib project has emphasised international cooperation from the start and works in close collaboration with related Nordic projects. This has also worked with other countries towards the development of similar digital networks. In conclusion, it is my opinion that the strategy of cooperation on all levels and of using international standards when implementing ICT, is the most effective way of working and succeeding with digital library systems.
Further reading

Web addresses

Denmark
www.bibliotek.dk
www.biblioteksvagten.dk
www.deff.dk

Finland
www.Libraries.fi
www.lib.helsinki.fi/finelib

Iceland
www.gegnir.is
www.hvar.is

Norway
www.bibsys.no

Sweden
www.libris.kb.se
www.nai.uu.se
Bibliotek.se