OPEN LIBRARY NETWORKING AND INTERLIBRARY COOPERATION/
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INTRODUCTION
Considering the way in which scientists and students use information and publications for their research, one can only reach the conclusion that libraries have lost none of their importance as centres of information. The researcher prefers - in my experience - simply to have (most of) the necessary publications at hand, or at least in close vicinity. This presents a difficult task for the library. For this preference means that the library has to take care, within its financial limits, that the publications most relevant to research, education or society in general, are available on the spot.

However, it would not be correct to assume that the only services provided by the library are building up and managing a collection, as if these would be the only important activities. The building up and management of a collection are, indeed, preconditions for an adequate literature provision and a good library service, but its quality is not completely determined by these. Other factors play an important part as well.

THE VIRTUAL/DIGITAL/ELECTRONIC LIBRARY
We may think of things such as: offering electronic access to online catalogues of the library itself and of other libraries, access to bibliographic files, contents databases, CD-ROMs, full text databases, electronic periodicals, image databases etc.
One may also think of advanced techiques of making library sources available, new retrieval facilities (supported or not supported by expert systems), document delivery systems, automated literature research and so on.

Saying this, the terms "virtual", "digital" or "electronic library" soon crops up in the conversation. Personally, I regard these as ill-fitting designations, because they are mostly used by the very people who apparently want to create a contradicition between these new forms of library services and the existing, traditional ones. This, however, is a false contradicition.

The electronic functions of giving access to data inside or outside the library are supplementary to the traditional functions of building up and managing a collection; together they make up the quality of the library service, of which the making available of necessary information is the most important aspect.

Opposing the concepts of access and ownership is misleading as well. It is not the case that giving access to databases, wherever they may be, makes ownership, the managing of library collections redundant, or even less important. In fact, it is the heart of the librarian's profession to find the right balance between both aspects of library services.

THE OPEN LIBRARY NETWORK (OBN) IN THE NETHERLANDS
Starting from these thoughts I would like to speak on the Open Library Network (OBN), which has been available in the Netherlands for some time now, and I would like to draw some conclusions from it for the setting-up of open library networks in a more general sense.

OBN was developed by the Center for Library Automation PICA, with the financial support of SURFnet, the scientific research network organization in the Netherlands.
The concept of OBN is that the systems of various libraries (starting with the libraries with a local PICA-library system, but also the libraries with local library systems of other suppliers, such as ALS) are linked online with each other and with the central PICA-systems. The mutual links are through the scientific research network of SURFnet. Within this research network PICA implemented the OBN as a logical network. It is end user-oriented and uses a uniform end user-interface, which means that a user can search the online catalogues of all the libraries connected with the OBN and the central PICA-databases in the same way as his own online catalogue.

Since 1993 the OBN has been expanded with direct user access to the PICA file Online Contents database, a large national database with catalogue entries of articles from the 14,000 (currently) most requested periodicals in the Netherlands. Since the middle of 1994 the Dutch Central Catalogue, containing the holdings of more than 200 Dutch libraries, is also directly accessible for the end users.

Through the catalogues accessible by means of the OBN (including the Online Contents Database and the Dutch Central Catalogue) users can directly make a loan request. Moreover, the Online Contents Database is connected with a document delivery system, called RAPDOC, through which articles in an electronic format or photocopies of articles can be sent on demand within respectively 24 or 48 hours to the users at their work- or home address.

Because of the infrastructure of the OBN the Dutch university- and other scientific libraries, each holding a number of books ranging from some hundred thousand to a few million, and together managing tens of millions of books and periodicals, are starting to function as one big Dutch Scientific Library. Their users can look at the combined collections of the libraries working together in OBN as if it were one large collection, from which the desired publications can be requested for loan. In order to make this a controllable process and to realize a quality service, these libraries have declared their willingness to cooperate. They are prepared to comply with a number of organizational conditions, of which I will speak more later on.

Since September 1994 the First Search files of OCLC have experimentally been made available to users through OBN as well. Besides that, OBN-like links have been made with the British Library, the English LASER system, the French SUNIST, the Lower Saxon BRZN and the files of the Research Library Group. These links, however, are, for the time being, only of interest to interlibrary loan traffic and to cataloguing and are not accessible to users by themselves.

At this moment PICA is in the process of developing a standardized Z.39.50 interface with which not only the above mentioned online catalogues can be searched uniformly, but other bibliographical databases as well, such as the database EMBASE of Elsevier Science Publishers' Excerpta Medica. The fact that extensive abstracts form a part of that database makes it necessary to expand this interface with a number of searching and retrieval facilities; so, in addition the Newton Search Engine of OCLC is used. The first version of this interface has been operational since October; an updated version will be available in the next year. The implementation of a graphic user-interface (GUI) is planned for 1995.

OBN IN AN INTERNATIONAL CONTEXT
Some Bundesländer in Germany, the Norddeutsch Bibliotheksverbund and the Deutsche Bibliothek have, as you will know, decided to implement the central and local PICA-systems in their libraries. Because of
this expansion of the PICA-system to Germany the OBN facilities will also be available there and cooperation with the Dutch OBN libraries will be possible. Technically this does not give any problems, organizationally however, some things have to be worked out more thoroughly. A first impulse to the cooperation between the Netherlands and Northern-Germany was, by the end of July, given in Göttingen. A project plan for the realization of this cooperation is at the moment in its final stage.

I hope that the application and connections of open library networks will come about in all parts and countries of Europe. In this way the concept of a European Scientific Library could be given form, within which the libraries connected to such an open network will provide services to each other.

ORGANIZATIONAL ASPECTS AND CONDITIONS OF COOPERATION WITHIN AN OPEN LIBRARY NETWORK

If libraries want to cooperate within the context of an open library network, then, in my opinion, a number of organizational aspects should be taken into account and a number of conditions should be met.

When formulating these aspects and conditions, I am undoubtedly strongly defined by my own experiences with the Open Library Network realized by PICA in the Netherlands; yet I hope my remarks can be of use when an open library network is implemented somewhere else.

1. General policy aspects of cooperation within an OBN

In order to correctly take part in an open library network the libraries in question need to form a cooperative. In this framework they have to define a library policy, in which the library services to be provided will be sharply defined and the limits of these services will be made clear.

When formulating this policy the willingness should be always there - in spite of the various managerial-organizational situations - to see the autonomy of each library in perspective and to attune service as much as possible to that of the other partners, so that, in principle, the same policies towards users and a uniform library service are created.

Moreover, it should be possible to define special forms of cooperation within a very large cooperative. It may be important, for example, that various kinds of libraries are defined (university-, public-, special libraries, etc.)

Furthermore, it should be possible to provide thematic (for example, chemical or medical libraries) subdivisions within a cooperative.

In very large OBNs it should be possible to form smaller regional OBNs. This can be brought about by using for example area-codes in the central database. In the Netherlands we have the regional Amsterdam network ADAMnet. Another possibility is the integration of the catalogues of a number of institutions in one local library system. An example of this is the Limburg library network IHOL.

2. User registration, authorization and identification

Within an OBN-cooperative one should be able to differentiate the services to be provided in such a way that these are accessible to different categories of users with different levels of authorization.

In the first place a distinction should be made between registered and non-registered users.
Non-registered users are users who are looking for a connection through a work station with another OBN-library without the wish or the possibility to identify themselves. This group is solely offered consulting facilities, insofar this does not lead to a bad performance of the library system in question because it burdens the system too much.

Registered users are users who have been authorized by a participating OBN-library. A user is registered in the OBN on the moment he has given his lending number at the system's request - and possibly his password and pincode - and this information has been validated by the system. In principal, this identification takes place only once per OBN-session, a session being defined as: maintaining a connection with the OBN-database in question.

Every library is responsible for the authorization of its individual categories of users. The subdivision of users into various categories should correspond with the subdivision in its own local (lending-)system and should agree with the subdivisions within the other OBN-libraries. This goes for the granting of codings as well. This means that - on the basis of lending permission in the local system of the user - OBN-permissions can be generated for every user category in the systems of other OBN-participants.

The decentrally granted level of authorization should in principle be determining for the policy towards users of every library participating in the OBN cooperative.

3. User services
In order to use the services of the other libraries of the OBN-cooperative the user has to be a member of at least one library organization within that cooperative.

3.1 Searching facilities
Access to and searching in the internal OPAC and the OPACs of other OBN-libraries should basically be free and users should not be charged for this facility. In the Dutch OBN every library makes available in its local library system 10 logical channels (= 10 simultaneous access facilities) for users of other OBN-libraries within the cooperative.

The Dutch Central Catalogue and the central Online Contents database of PICA are also made available for free to users by the OBN-libraries. PICA does, however, charge the libraries a certain amount of money for every logical channel. At the moment the rate is ƒ50,000 for ten logical channels.

For reasons of security and controllability a user in an external OBN-database cannot dial-direct to another external database. The moment the user wants to access another external database he returns to the OBN-menu of his own OPAC and can make a new choice from this menu.

It is recommendable that every library should develop for itself - depending on the spatial situation -
y for the question which databases should be made available...
work stations within the library
* only the local OPAC
* local OPAC + local subdivisional databases
* OPAC + (local subdivisional databases) + access to OBN
* other OBN-databases only
* etc., etc.
work stations on the place of work
* in principle all facilities

If the institution has a so-called campuswide information system (CWIS) the OBN-databases and other possible databases should be integrated within this system as a logical network. From the user's point of view there should not be a completely distinctive library information system apart from the CWIS.

3.2 Making publications available
An open library network is only of extra value to the user, if besides searching facilities, lending facilities and document delivery facilities are offered as well. This facility distinguishes an open library network from networks such as Internet and navigation services such as Gopher and World Wide Web.

Making publications available the following principles could be followed:

3.2.1 Taking for granted that, generally speaking, interlibrary loan traffic and therefore direct loan requests by users through OBN, will cost money, the user has to open a deposit in advance with his own library.
In the Netherlands this deposit is called the IBL-account. The system of the IBL-account has been integrated in the OBN software.
Another possibility is credit cards following the example of various document delivery organizations in the United States.
The costs of the loan transactions of the user are deducted from his account; his own library guards this deposit and gives the user the information he requires, or provides necessary directions.

3.2.2 Monographs are always sent to the library of which the user is a member, and never directly to his home- or work address. The mother library then lends the monographs received from other libraries to the user, after the data of the book in question and other necessary data have (temporarily) been recorded in the lending system of that library. (In the Dutch OBN such a temporary record is automatically made). After the period of loan is expired, the receiving library takes care that the book is returned in a correct fashion to the library who lent the book.

3.2.3 Articles preferably are sent in photocopy directly to the home- or work address of the applicant by the library who delivers these articles. When scanning and electronic mail is involved, the articles should be sent to the electronic address of the applicant.

3.2.4 Electronic documents are delivered on the same conditions as photocopies of articles and can either be sent electronically to the address of the applicant's work station or printed and sent to an address stated by the applicant.
When large texts are involved, this form of service is becoming a kind of publishing on demand. Of course, good information in advance on the costs of the delivery of electronic texts is necessary.

4. Scale of charges/financial settlement
Clear instructions should inform the users which services are offered on which conditions within the OBN. One of these conditions may be the opening of the deposit (IBL-account) mentioned in paragraph 3.2.1.
After opening the deposit a certain amount of money is deducted from it for every loan request. Which charges a library should want to make, can be determined by the library itself and can be assessed by defining the deposit parameters for each loan transaction and document type (monograph or article).

Even though every library is free to stipulate the scale of charges for their own users, it is advisable to harmonize this within the OBN as much as possible.

For the charging of IBL-services it should make no difference how the required document is delivered (by mail, fax or electronically). It is possible, however, to charge extra for rush orders.
The fulfillment of IBL-requests (monographs, articles or electronic documents) is financially settled by the delivering library with the library of the end user according uniform rates. The stipulation of uniform rates for the mutual settlement of IBL-costs between libraries is in my point of view an important condition for the functioning of the IBL-system within an OBN, even though every library is free in stipulating the scale of charges with respect to their own users.

The above mentioned also means that there only is a financial relation between the user and his own library, and no such a relation between the user and the delivering library.

A clearinghouse system for the mutual settlement of IBL-costs between the libraries participating within an OBN on the basis of uniform rates prevents the sending to and fro of an endless number of bills for small amounts of money. Within the Dutch OBN such a system has been implemented and will be operational very soon.

5. Technical aspects

It is not necessary for the participation within an OBN that every library should have the same local automation system (for example PICA), but it is essential that the participating libraries use software packages with (international) standards (such as the Z.39.50/SR protocol) and that their computer configurations are based on a client/server architecture.

An OBN should basically be open to every library with a local library system of their own, and they should give other libraries access to their databases on a reciprocal basis.

When various OBNs are connected with each other, a central gateway structure is preferred, especially from the point of view of regulation of loan requests and document delivery transactions. In the Northern German-Dutch OBN-cooperatives, for example, the central configuration of the BibliotheksRechnersZentrumNiedersachsen in Göttingen (BRZN) and the central PICA-configuration in Leiden will function as central gateways between the OBNs in Northern Germany and the Netherlands.

FINAL CONCLUSIONS

The managing director of PICA, Look Costers, introduced in his lecture at the symposium 'Library Networking and Electronic Media' in Bielefeld, held in February 1994, the concept of Controlled Network Information Environment and mentioned in connection with this two levels of service. The first level of service refers to the services the library itself can control and directly offers to their own users. This concerns on the one hand the systems used by the library itself and on the other hand the (local or external) databases and information services the library provides to its users on its own and via a standard user-interface.

On the second level the library provides services within the framework of the cooperative of which it is part through an open library network. For the provision of these services my former remarks are meant. According to Costers, Internet could be considered a third level of service, but - as he justly remarks - it does not form a part of the Controlled Network Information Environment. "It forms an uncontrollable infrastructure, which causes the quality of the service not to be guaranteed".

In my opinion the possible use of electronic access to databases within and especially outside the library as such, is very often overrated. If these possibilities are not connected with facilities in the area of services, preferably directly to the users, profit is small and the effect very often even negative: being able to see where all kinds of information are, but not being able to get this information, does not lead to a large user satisfaction. This is the reason why libraries have the task to apply in a practical way the
new assets of the information technology and to integrate these in such a fashion within the library policy that user service is brought to a higher level. I hope that this lecture contributes to further thinking about this subject.

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