Resource sharing and coordinated automation in university libraries in Israel

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University libraries in Israel are now in the process of introducing nationally coordinated automation. This project is supported by the Council for Higher Education which is a government authority, its final goal being the creation of an online national catalog, encouraging resource sharing and improving each university library's local services. Acquisition budget limitations and the distance from Western sources of information have always been important reasons for library cooperation in Israel.

Israel's largest information resources are located in university libraries. There are seven institutions for higher education in Israel. Whilst the Technion is the only technological university in Israel there are faculties of pure and natural sciences and some areas of engineering in the other universities. There are also many special libraries, but their collections are usually very limited. A considerable part of the services given by special libraries in the areas of science and technology are based on material supplied by the university libraries in the form of article photocopies and inter-library loans. These services are also extensively shared between the university libraries; the inter-library loan system operates mainly through telex connection and special means of transportation.

Growing government financial involvement in universities, as well as in their libraries has resulted in the creation of a Standing Committee of the National Library and the University Libraries. (The National Library is also the library of the Hebrew University of Jerusalem). Members of the Committee - which also has several sub-committees for special subjects - are the directors of the various university libraries. The government initiated the setting up of this Committee in order to improve cooperation and resource sharing amongst the libraries thus using budgets more efficiently. Projects under the auspices of the Standing Committee include the Union List of Serials in Israel Libraries and the inter-library loan system.
The need for a central bibliographic tool describing the collections of all the libraries was felt years ago. The first step towards a national catalog was the Union List of Serials in Israel Libraries. It began as a list of periodicals in science and technology and developed into a comprehensive national union catalog of periodicals in all subjects. It contains more than 70,000 records. Special funds are allocated by the government to support this project. Editorial and professional staff are located in the National and University Library in Jerusalem. Libraries reporting to this catalog are not restricted to university libraries and include most of the special libraries in Israel. The participating libraries are responsible for reporting additions, changes or cancellations of items. All the data have been converted into machine-readable form and are maintained at the Hebrew University computer as part of the integrated library system "Aleph" which has been developed there. The catalog is issued yearly as COM (microfiche) and is distributed to the university and special libraries in Israel. Catalog data are also available online to libraries which have terminals with telecommunication connection to the Hebrew University computer.

The Standing Committee of University Library Directors is the librarians' means of influencing the planning and development of the serials catalog from the user's point of view. At present the possibility of coordinated serials acquisitions is being checked by the Standing Committee. The existence of this excellent tool is continuously improving resource sharing in Israel. It is also an important aid in complementing computerized literature searches abroad. Articles listed in bibliographic lists which are the product of such searches can be easily located and delivered as photocopies via the inter-library loan system throughout the country. Technically, the inter-library loan system is better organized among the university libraries but there is also active contact with the special libraries by means of the regular mail system.

Lack of a national book catalog restricts resource sharing. Whilst requested books can be located by telex or phone inquiry this is not always efficient. Serials inter-library loan is much more active than book inter-library loan because of the availability of bibliographic information. Formation of a national book catalog has been delayed largely because of the expense involved in such a project, as the only practical way to enable access to a central catalog of millions of records is through computerisation. The financial
investment required has become justified as a result of the combination of local automation in university libraries simultaneously with the creation of a national catalog.

Universities, including their libraries, receive government funds through the Council for Higher Education and the Planning and Grants Committee which is its operating body. Special attention has been given by these authorities to literature acquisitions budgets. Funds are allocated to the universities in order to increase the libraries' reduced budgets. The authorities' interest in inter-library cooperation is directly related to their financial involvement. It has been realised that improved resource sharing is the most effective way of using the literature acquired. This goal can be achieved by creating a national data base with easy access for users. This data base should be handled by computer and the project can be combined with computerization of the university libraries, which is also a necessary step for modern library services.

There was gradual development of automation of the libraries before the final decisions were taken. In the recent past computerized systems for special tasks have been developed in the libraries. An important one has been the Haifa University system which, besides solving its own library problems in cataloging and circulation, has produced catalog cards and magnetic tapes for three other university libraries. The Technion Library used the Haifa University computer services by telecommunications to build a machine-readable data base of new and retrospective records. However, the libraries looked for better and more comprehensive solutions. The answer was given by software developed at the Hebrew University of Jerusalem. This software has been successfully operating at the Hebrew University libraries for the past three years. The software, called "Aleph", is an integrated library system in which library functions are performed online from one data base. It includes the following functions: cataloging, authority files creation and maintenance, online public access catalog, circulation and acquisition of books and periodicals. The software is bi-lingual (English/Hebrew), flexible, and can answer the special demands of any library. It is also adjusted to network needs of a group of libraries or a central library with branch libraries.

"Aleph" software was originally written for Control Data Corporation (C.D.C.) computers. Later, an advanced version was prepared for Digital Equipment Corporation (D.E.C.) VAX computers. Comparisons made between "Aleph" and
similar software developed abroad were to the advantage of "Aleph". Most university library directors in Israel wish to implement it in their libraries. After long discussions and investigations, recommendations were submitted by the Sub-Committee for Libraries to the Government Planning and Grants Committee and accepted by it. Thus "Aleph" has been selected as the appropriate software to handle the national data base and local libraries' functions.

The original plan was to build and maintain the national catalog on a central computer (C.D.C.) located at the Hebrew University of Jerusalem to which the libraries would connect their terminals by telecommunications; local library functions would also be handled on the same computer. Government financial support has been promised to libraries adopting this system. However this situation proved to be impractical. There were too many professional, technical and administrative problems in handling local library functions on a remote computer using a common data base. Experience gained at the Technion Library, which was the first to connect terminals through telecommunications to the computer located in Jerusalem, helped to convince the authorities that the desired goal would not be achieved this way. At that time, the "Aleph" improved version written for VAX (DEC) computers was already in an advanced stage of development. VAX computers have several advantages, their cost being within the financial capabilities of individual libraries. Technically, it is possible to connect more than one VAX computer to the same data base in order to widen gradually the scope of computerization in large or decentralized institutions. From the user's point of view the combined machines work as one computer. From the administrative point of view, large institutions can spread the expense over several years. This method has been chosen by the Technion for its decentralized library system.

The Government Planning and Grants Committee for Higher Education Institutions reconsidered its previous decisions and decided to support the creation of a national decentralized catalog which would be a by-product of coordinated computerization in the university libraries. Financial support would be given to participating universities under several conditions: the university libraries would implement only one software program, the "Aleph" integrated system, on uniform equipment to ensure maximum coordination. The software would be developed and maintained centrally to ensure maximum similarity. As a result of these decisions an agreement was reached to acquire the "Aleph"
software at a reduced price as one package deal for the university libraries in Israel. It was agreed that the development and maintenance services would be given by the staff of the Hebrew University together with the company which markets "Aleph" abroad. Special funds will be allocated to university libraries on a matching basis for purchasing equipment. It is planned to link the libraries' computers by special telecommunications lines. The network connection will be used for catalog searching and copying catalog records. This link is the basis of the national catalog. Cataloging rules are also being coordinated between the university libraries. The national serials catalog which is already computerized is being combined in this project together with the book catalog. There is also access to a data base of MARC records for cataloging purposes. A steering committee has been appointed to supervise the implementation and further development of the national project. It reports to the Government Planning and Grants Committee for Higher Education Institutions. It has been decided to regard the first "Aleph" installation on a VAX computer outside of the Hebrew University of Jerusalem as a pilot project for the national plan.

The Technion Library was chosen to be the first to receive government financial aid for acquiring equipment and software because it was ready from the professional point of view to absorb the project. The library has invested great effort during the last few years in catalog conversion and in staff training. Automation of the Central Library and the twenty departmental libraries at the Technion is the final stage of the integration of these libraries into one bibliographic unit sharing a common data base. Users will be able to contact the central catalog online from the different libraries and from terminals and microcomputers situated outside the library. The catalog will also display the loan status of each publication and there will be a unified circulation system for all the libraries. Acquisition information will be registered in the catalog too.

For the implementation of the first stage, the Library has ordered a VAX 11/750 computer, 30 terminals and the required additional equipment. At this stage, only the Central Library and four larger departmental libraries will be linked to the computer. In the final stage about a hundred terminals will be needed for all the Technion libraries. For this purpose one or two additional computers of the same type will be acquired in the future. They will be linked to the same data base. After receiving the results of the
acceptance test of the Technion Library at the beginning of the next academic year, the other university libraries will gradually implement the system.

A great deal of effort, both political and professional, has been invested by librarians in Israel in order to arrive at the current stage. Based on experience to date, the librarians believe that they will also be able to overcome any future obstacles which will undoubtedly arise. The overall effect will be to improve the ability of university library users to retrieve information. Users of special libraries will have better access to the university libraries' collections through telecommunications. Cooperation and resource sharing amongst the libraries will be improved as will local services offered by the university libraries. The implementation of a coordinated computerized system is an important step towards the optimal use of the country's information resources.