

ONTARIO UNIVERSITIES' LIBRARIES  
CO-OPERATIVE SYSTEM

By Ralph E. Stierwalt  
Director, Office of Library Co-ordination  
Council of Ontario Universities  
Toronto, Ontario  
Canada

ABSTRACT

A brief statement on the history of the Ontario Universities' Libraries Co-operative System, the automated projects now in operation and/or under development, and a longer explanation of the Union Cataloguing System Project.

Collectif

Un rapport bref sur l'histoire du Système Coopératif des Bibliothèques Universitaires de l'Ontario (OULCS), sur les projets automatisés qui opèrent maintenant et/ou qui développent et une explication plus longue sur le Project du Système de Catalogage Coopératif.

The Proposal for the establishment of the Ontario Universities' Libraries Cooperative System (OULCS) was approved by the Council of Ontario Universities in June 1973. The guidelines for the establishment of such a System were provided by a joint meeting of the Council of Ontario Universities and the Ontario Committee on University Affairs in 1968. These guidelines specified that 1) each university be prepared to commit itself to participate in an Ontario Universities' Library System; 2) each university library be essentially self-sufficient in the provision of service for undergraduates and be effectively interdependent in the provision of service for research and graduate use; 3) there be appropriate coordination and centralization of technical processes; 4) automation be introduced where appropriate; 5) there be appropriate centralized storage of less frequently used library materials.

The proposal for the establishment of OULCS, developed by COU's Board for Library Coordination, encompasses all of the COU-CUA principles, namely,

- 1) shared automated library systems
- 2) the development of union files to be used to
  - a) provide improved information services eventually,
  - b) rationalize collections development and,
  - c) maximize the sharing of research resources

## OULCS

- 3) develop and implement a provincial collections development policy for 15 universities
- 4) conduct a survey to determine the need for and feasibility of establishing a depository library or libraries in the Province.

The formal structure of the OULCS is designed to include and utilize appropriate expertise (library and faculty) in order to reach the goals and objectives. It is believed that the success of planning and implementing library systems and programmes depends very much on the acceptance, assistance and support of the faculty and administration of the universities.

### Sharing Library Systems

The sharing of library systems in the Ontario university library community began early in 1971 on an informal basis. Two university libraries concluded, after considering the cooperative use of the Guelph Documentation System, that benefits for each library could be realized. The benefits anticipated were 1) provide users with access to a larger number of documents; 2) rationalize the collection of documents by the two libraries; 3) share workloads related to listing documents and maintaining automated programmes and files. The benefits became a reality and other libraries asked if they could participate also.

Today there are four automated systems in operation and one in the planning stages. These are:

- 1) The Government Publications System
- 2) The Cooperative Union Serials System (CUSS)
- 3) The Subject Heading System
- 4) The Union Cataloguing System
- 5) The Map Listing (Cataloguing) System  
(in the planning/developing stage)

The largest and most complex of these systems, and the one probably of most interest to the C.A.I.S. group, is the Union Cataloguing System.

### The OULCS Union Cataloguing System

Several basic principles were followed when the plan for the Union Cataloguing System was developed. The same principles continue to be followed because we believe we will only reach the goals of improved information services, collection rationalization, and a greater sharing of research resources when we adhere to the guiding principles. These are:

- 1) The development of a union file of holdings is essential for the provision of information services and the collections development work that must be done.

## OULCS

- 2) The adherence to bibliographic standards is essential for the development of compatible records useful for cataloguing support and collections rationalization.
- 3) The bibliographic standards should be as closely aligned with Canadian standards as possible in order that the system and its products will support the development of a national bibliographic/information system network.
- 4) The Union cataloguing system should be expandable to public, college, and other kinds of libraries.

The Computing Facility

The University of Toronto Library Automated Systems (UT/LAS) computing facility was selected to supply the computing services required to support the OULCS Union Cataloguing System. The Committee which developed the proposal for the OULCS System were guided by several factors such as

- 1) A desire to have the computing facility support at home, i.e. in Canada, as opposed to "going abroad".
- 2) The funds available for developing systems support from "scratch" were non-existent; an existing service had to be considered.
- 3) The hardware/software component had to be flexible enough to meet the requirements of the OULCS cataloguing support system.

The UT/LAS facility utilizes Xerox Corporation hardware/software. It is sufficiently flexible to meet the requirements of the OULCS Union Cataloguing System, and it is "at home".

Communications

The majority of users are connected to the computing facility via Bell Canada's Data Route; others are hardwired (the University of Toronto Library) or utilize dial-up lines. The communication mode has been character by character transmission. Message mode communication is planned for introduction in June, 1975, when the necessary CRT terminals, cluster controllers, and software are available/developed and tested. We plan to have one line (loop) going west from the computing centre to serve Ontario users west of the centre, and one line (loop) going east to serve Ontario and Quebec users east of the centre. Indications are that the message mode communication configuration will result in more efficient use of the computing facility and lower communications costs.

## OULCS

CRT, Cluster controller, Printer

The Lektromedia Company (Montreal) has developed the cathode ray tube terminals and cluster controllers required to meet the specifications set by the UT/LAS and the OULCS. The CRTs have edit capabilities, an extended character set, and diacritics. The cluster controller, useful when the message mode communication capability is introduced, will accept up to eight terminals (CRT and/or printer). Simply put, it will "control" the messages generated on the terminals. Messages are sent and received by the cluster controller and routed to the appropriate CRT or printer.

The printer is a Texas Instrument model which has been modified to print all of the characters and diacritics in the CRT character set.

Brief Description of the Computing System Facilities

Data Base. The system provides on-line access to cataloguing data available in the LC, BNB, and CAN/MARC data bases converted to Standardized OULCS/MARC format (Standardized Format is a superset of the OULCS record format) with as much ISBD punctuation added as is possible by machine recognition.

MARC source records are kept active for 15 weeks following receipt. The most requested records are maintained active for longer periods of time. Following the active period, each record is put in indefinite passive storage from which a user may recall it to active status.

On-line access to OULCS Union file records. Union file records are held in active status for a limited period, and then move into passive status.

On-line access to user's own records (local files). These remain active as long as specified by the user, at the user's expense. A user may specify that records be automatically stored in a passive file when catalogue records have been produced.

An index to all records is maintained on-line in active status at all times. When a desired record is in passive status, the user may post his request. The passive files are mounted and accessed once a day at this time. The requested records are transferred to "active" status and are available to the user the next day. Transferred records go through the aging cycle again before going back to passive storage.

System Prompts

The system provides prompts in English and French. It also provides the format outline (tagging structure) in numerics or alphabetic in long form, e.g. Personal Author Entry, or short form, e.g. PAE. The user may choose what is most comfortable for him.

## OULCS

Access Keys

Access to records is provided as follows:

- 1) LC card number - record displayed unless there are multi sources in which case the user chooses the source according to the protocol developed by the User Group.
- 2) ISBN - record displayed " " "
- 3) Author - up and down Browser capability and record display if user wishes, including access by author and title added entries.
- 4) Title - up and down Browser capability and record display if user wishes
- 5) Precise Title - with leading non-filing characters omitted - ditto as 1 and 2.

The users have indicated that imprecise author/title access is very much needed. Browser and precise title access are too time consuming and expensive for cataloguing purposes. A good bit of time and thought have been given to the problem of imprecise author/title access, but a good solution has not yet been found.

Building the Union File

In-putting a Cataloguing Record. The User Group Bibliographic Standards state that

"A user is obliged to upgrade a derived record or input an original record to minimum Union File bibliographic standards before he may deviate from the standard."

The following local use tags are provided for the user:

Ø35	Local control number
Ø9Ø	Local call number
1XX	Name entry (replaces union entry)
5XX	Local notes, e.g., Library lacks, For holdings see..., etc.
6XX	Subject added entries
7XX	Other added entries
8XX	Series added entries

If the user chooses to add more datum or alternate datum it may be added in the corresponding local use tags. The use of these tags will cost the user more money for file storage, however. If the user wishes, he may input a complete alternate record (alternate to the Union record), but he will have to pay extra for storage costs, and the deviant record must be input according to the rules specified by the User Group, i.e., a Union File record must be input first before a deviant record).

## OULCS

System Products

Hard Copy Products. The system will provide the following hard copy

- 1) full and completed catalogue cards arranged in filing sequence in streams, i.e., shelf list, author, title, etc. according to receiving catalogues
- 2) punched circulation cards if required
- 3) call number labels
- 4) call number and brief author/title labels for book pockets
- 4) catalogued acquisitions lists based on the user's profile

Available on special order

- 1) current awareness listings based on the user's profile
- 2) subject bibliographies based on the user's profile
- 3) a tape of the user's transactions.

Statistical and Management Data

The system also produces a great deal of statistical and management data such as number of titles, copies, volumes added, number of cards produced, number of Union File records used more than once by which user(s), system use statistics, e.g. amount of connect and c.p.u. time per title, etc.

The quantity of such data that is now available is quite large; we haven't really begun to collect and analyze all of the kinds of data we have specified. The system now affects technical services operations at the following points:

- 1) Pre-order bibliographic verification
- 2) Pre-cataloguing
- 3) Cataloguing
- 4) Catalogue record production
- 5) Book preparation (labelling)
- 6) Card catalogue maintenance

## OULCS

One need only reflect on these activities to re-call the amount of **manual** statistics usually kept for any one of them to understand that the central computing facility can and does maintain the same and many, many more statistics. In time, management data programmes can be developed which will analyze statistical data for each user and provide the user with information which will be useful in the operation of his library.

In time, the Union File System will be useful for such standard activities as book selection and inter-library loan. The main goal, however, is to develop the data base necessary for the provision of information services to the users of libraries. Reaching this goal will take more time, a lot of careful planning, and a great deal of hard work, but all of the indications are that the goal must be reached to ensure that libraries will play an important role in the provision of information.