# Use of computer for library collections of serials and periodicals.

## September 26, 1964

The tremendous "housekeeping" job of maintaining the large collection of serials and periodicals in the University Library on the San Diego campus of the University of California has been successfully turned over to a mechanical charwoman-a high speed computer.

The result is an accurate, up-to-date, and easily accessible listing of all 5,500 "titles" in the library's serials collection. Few, if any, large university or public libraries have been able to offer their readers such a listing in the past.

The successful use of computers is the result of a two-and-one-half year project recently outlined in a 78-page "final report" issued jointly by the University Library and the University Computer Center. The two-phase project, the first of its kind, was financed by a $10,000 University grant and by a $13,000 grant from The Council on Library Resources, Inc., with headquarters in Washington, D.C.

It was directed by Dr. Clay Perry, Director of the Computer Center, and Mr. Melvin Voigt, University Librarian, and was carried out under the supervision of Mr. George Vdovin, head of the University Library's Public Service Department. Computer programming was done by Mr. David Newman of the Computer Center. Mrs. Elaine Woods, Principal Library Assistant, is now in charge of the operation.

The large number of academic personnel working at the UCSD campus necessitates a daily influx of general reading material combined with a heavy load of scientific and professional journals. The 5,500 "titles" received by the library include everything from daily, weekly, and monthly magazines and journals to publications which are issued on an irregular basis but which continue in a sequence.

the past, the routine job of receiving, recording, and shelving the material required the full time of several library staff members with the largest percentage of the time spent on updating by hand the thousands of record cards. The laborious job made it impossible for the staff to maintain an easily available listing for students and faculty.

Such a list must necessarily show titles available, missing copies or incomplete collections, bound copies, and location. At UCSD, as in all large libraries, such information was formerly available to library users only by asking a librarian to search through bulky card files.

According to Mr. Voigt, the number of routine tasks required to keep an up-to-date accurate listing lend themselves ideally to a high-speed computer system such as the Control Data 3600 in operation on the UCSD campus. The library project includes some 3,000 separate computer directions, he said.

Each month the computer produces a set of punched cards, one for each title and issue expected during the month. The computer is able to predict how many issues of a periodical or magazine will arrive that month, or if any will arrive since some titles arrive only quarterly or annually. It knows how many issues of each title make up a volume, when new volumes begin, and when supplements and indexes can be expected.

At the end of the month the cards for all issues received during the month are fed back to the computer which up dates its tape records. Additional cards for all new titles purchased by the library during the month, for all back issues purchased to complete collections, and for newly bound volumes are presented to the computer at the same time.

The computer tapes digest all the new material and quickly include it in the memory track along with all previous stored information. In addition, the previous material is updated or corrected as needed.

As the computer digests the new information it produces new cards for the next month. More importantly, it also produces an all inclusive up-to-date alphabetical listing of the library's entire serials and periodicals collection, and a similar listing of titles by location on the campus.

As most universities have more than one library, and at present UCSD has four separate collections, the second listing is very important. At UCSD a journal could be in the General Collection, the Science and Engineering Library, the Biomedical Library, or in the Library of Scripps Institution of Oceanography. Also, duplicate copies could exist in several of the collections.

Today, in order to locate a particular copy of a journal, a student or faculty member has simply to consult the computer listing readily available in each of the University's libraries to see at a glance if the material is on hand. These advantages are obtained without any increase in cost, for the cost of the computer service is made up for by savings in time spent in answering questions and in a variety of clerical operations.

As wonderful as it sounds, such a system is not for every library.

Due to computer costs for a small operation, and costs of developing the system, it is doubtful that such a system should be developed for a library with less than 1,000 to 1,500 serial titles unless computer facilities are easily and cheaply available.

On the other hand, there would seem to be no reason why similar systems could not be developed for library holdings up to 15,000 or 20,000 titles, Mr. Voigt said. A number of large university libraries are already adopting the UCSD system or are adapting it to their needs, he said.

Since the UCSD Library project was the first use of a computer for this purpose, it has brought a flood of visitors to the campus. They have come from universities in every part of the United States-- Harvard, Michigan, Ohio State, Chicago, and many more; from government and industry; and from many foreign countries including England, Australia, and Germany.