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Library Automation And Bibliographic Network

Library Automation And Bibliographic Network

Presented at the International

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by

Nancy Ou-lan (Hu) Chou

1993

National Chengchi University

**圖書館自動化與書目網
國際會議論文集1982~1992**

胡 歐 蘭 著

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Foreword

The development of the library automation and network is a very important subject in the fields of library and information science, especially during the recent ten years when academic research institutes, information service agencies and libraries in our country respectively set up the database and develop the automation system of their own. With a view to promoting the research and reference values and functions of these databases and systems scattered every where in Taiwan the Library Development Committee of the Ministry of Education activated in December 1989 the Library and Information Network Integrated Planning Research Group to study positively the feasibility of the establishment of the "National Library and Information Network". A printed report on the said planning was submitted in June 1991. The Ministry of Education has gradually carried out the projects in terms of the said report with the emphasis laid on the libraries and information industry.

At this initial stage of the library automation and information system development I am fortunate to have had the opportunity to work at the National Central Library for eight years from 1981-1989. During my tenure of office there I often presented papers in library and information science related international conferences all over the world, introducing the state-of-art of the National Central Library and analyzing the prospect of the library automation and information system in Taiwan in the hope that through such contacts with librarians and information scientists abroad I can push myself to make more contributions to my country and render more service to our library development. Therefore, in the past decade thirteen papers have been written and some of them have been included in the proceedings of the concerned international conferences. However, since they are published by different sponsors in the world it is not so easy to make them available locally for reference. Fortunately, the Ministry of Education has kindly approved to grant subsidies for the

publication of papers of international conferences and the current collection of my papers will thus be made available for reference by colleagues at home and abroad.

In this collection there are thirteen papers classified into four categories, namely, (1). Chinese MARC Format; (2).Chinese MARC Bibliographic Databases; (3).Library Automation in Taiwan, Republic of China; and (4). Library Networking in Taiwan, Republic of China. There are three to four papers in each category with the names, venues and time of the international conferences indicated in each paper.

In this information age there are rapid changes every day; the achievements today may soon turn out to be faded flowers tomorrow. However, in spite of the changes or progress there is surely a continuity between the old and the new. In compiling my papers for publication I am very much obliged to the former Director Professor Wang Cheng-kuo and my colleagues of the National Central Library for his encouraging supports and their enthusiastic cooperation during my service there.

Should there be any misprint or error whatsoever in the collection I would like to extend my sincere apology and heartily welcome any correction and comment.

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Taipei, Taiwan, Republic of China
June 1993

前 言

圖書館自動化與網路的發展是圖書資訊界重大的課題，特別是近十年來，我國學術研究機構，資訊服務單位以及圖書館紛紛建立自己的資料庫及發展自動化作業系統。為使這些分散在各處之專門資料庫及圖書館自動化作業系統，發揮其研究參考價值，教育部圖書館事業委員會於民國78年12月成立「整體規劃全國圖書館資訊網路系統研究小組」，積極研究「全國圖書館資訊網路系統」建立之可行性。規劃此項工作已於民國80年6月提出書面報告後，教育部業已朝向此一規劃案逐漸實施，落實於圖書館與資訊界。

筆者正逢圖書館自動化與網路的發展階段，投入國立中央圖書館服務八年。八年中就中央圖書館與國內發展的過程、狀況與展望，時時為文發表於各種國際性的會議，藉此與國際同道切磋，並激勵自己為圖書館界略盡綿薄之力。因此十年來發表了十三篇論文，其中有些論文已列入國際會議紀錄。由於資料分散參考不易，現蒙教育部核定列入八十二年度補助國際會議論文集之出版，故彙編成冊供國內外研究參考。

本書收入論文十三篇，依其內容分為四大類（章）為：（一）中國機讀編目格式；（二）中文機讀書目資料庫；（三）中華民國台灣地區圖書館自動化；（四）中華民國台灣地區圖書館網路。每類（章）下有三至四篇文章，每篇文章皆列有出席國際會議的名稱，時間及地點。

在這資訊時代中，天天千變萬化，今天的成就，很快成為明日黃花，但無論如何改變或進步，新舊之間仍有些延續性，整理過去在中央圖書館所作的成果，對中央圖書館的同仁們及主持館務的王前館長振鵠，心中充滿著無比的感謝與懷念，藉此表達我衷心的謝意。本書匆匆付梓，錯誤難免，敬請圖書館與資訊界同道們多多指教。

胡 歐 蘭

於國立政治大學圖書館
民82年6月

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I. Chinese MARC Format

中國機讀編目格式

Library Automation And Bibliographic Network

Library Automation And Bibliographic Network

I -1. Chinese Marc Format and Bibliographic Databases

中國機讀編目格式與書目資料庫

Presented at the 45th American Society for Information Science (ASIS) Annual Meeting : Symposium on Computer Processing of Chinese Library Materials and Computer-Assisted Chinese Language Instruction on October 19, 1982 at Columbus, Ohio, U.S.A.

Abstract

This paper reports on the development of an integrated Chinese MARC format for book and non-book materials in Taipei, R.O.C. The structure of Chinese MARC format based on UNIMARC with modifications to accommodate the unique features of the Chinese library materials and library practices is discussed by using the portion for non-books as examples. The current status of the development of Chinese bibliographic databases is also presented.

1. Introduction

The impetus for developing Chinese MARC format has been caused by both domestic and international demands for more efficient bibliographic control through the use of computers. The need to process Chinese vernacular library materials has become more evident since the announcements of (1) a nation-wide Chinese Cultural Development Program and (2) the closing of the card catalog at the United States Library of Congress.

The former which was announced in 1979 indicated a rapid growth of libraries throughout Taiwan, R.O.C. with a possible establishment of two hundred local libraries within five years.

Cultural centers, information centers, and libraries will become an emphasized portion of the Cultural Development Program. A national information network as such depends on standardization for the sharing of information and efficient management of information. The latter factor accelerated the need for processing vernacular East Asian materials in countries using other languages. Investigations and researches to solve this problem involved computer technology, linguistic expertise and library practices. Standardized Chinese MARC format is one of the necessities for data transferring, information sharing, and computerized library network. Information industry and computer technology for processing Chinese materials have received due attention and have been well-developed for all types of applications. Under these circumstances, the library automation advocates found it timely to form a Chinese MARC Format Working Group for the development of such standards.

2. The Structure of Chinese MARC Format

After careful evaluation of all the available MARC formats, the Working Group decided to base the structure on a communication format which is issued for the purpose of universal bibliographic control. UNIMARC is therefore used as a basis for further development. UNIMARC, however, has not taken the special features of East Asian materials into consideration. Instead of building up a national MARC format, the Chinese MARC format incorporates the uniqueness of Chinese materials and the necessary aspects of handling Chinese materials in a non-Chinese speaking environment LC MARC II formats are also consulted. In comparison with the UNIMARC, major differences include: (Appendix 1)

- 2.1. Subfield identifier "\$r" is added to Fields 200, 225 and 5xx for the purpose of getting access to the Romanized versions of title proper, and other variant titles.

- 2.2. Subfield identifier "\$u" is added to Field 3xx for libraries using cataloging rules other than CCR to record notes in Chinese, English and in Romanized forms.
- 2.3. subfield identifier "\$s" is assigned to Fields 600, 700, 701, and 702 for identification of a dynastic era during which a Chinese person lived.
- 2.4. New functions have been assigned to some undefined indicators in UNIMARC, e.g., indicators in Field 215 and Fields 010, 011, 204, 225.
- 2.5. Fields 501 (Collective Uniform Title) and 503 (Uniform Conventional Headings) are not used in Chinese MARC because of CCR requirement.
- 2.6. Fields 432, 433, 442, 443 in UNIMARC are excluded by Chinese MARC because they are not compatible with ISBD(s) and AACR2.
- 2.7. Field 326 has been changed to read " ...former frequency is first, followed by those pertaining to the current frequency in order to be in conformity with ISBD(s) and AACR2."
- 2.8. Fields 770-792 are added to record names in Roman alphabets and Fields 700-722 are used for names in Chinese characters.
- 2.9. Subfield identifiers are added to Field 805 (local library holdings) to record detailed information on library holdings, e.g., \$a for agency code, \$b for location, and \$c for accession numbers, etc.
- 2.10. Additions for Chinese music compositions and Chinese music instruments are made in Field 125. (Appendix 2)
- 2.11. Addition of Tag 550 is made for titles of series.

3. Bibliographic Databases

Upon the completion of the integrated Chinese MARC Format which includes the portion for books and non-books, two types of databases have been built up : (1) National Union Catalog of six thousand titles published in 1981 acquired by seven participating

academic libraries in Taipei area ; (2)National Union List of eight thousand records of Chinese serial holdings which have been contributed by one hundred seventy different types of libraries including academic, public and special libraries.

These bibliographic databases which have the following capacities will be the cores for future sub-systems:

- (1)National bibliographies (Chinese National Bibliography of New Books, monthly issue, annual accumulation, and National Union List of Chinese Serials)
- (2)Cataloging cards
- (3)On-line input and retrieval

Chinese MARC tape for the book part is available soon. Computer-produced National Bibliographies for books and serials in book form will be ready at the end of the year as shown in Appendix 3. (Figure 1: Chinese National Bibliography ; Figure 2: National Union List of Chinese Serials).

Cards for Chinese and Western materials will be available to libraries in the near future. Samples are shown in Appendix 4. (Figure 1: Book Catalog Card--for domestic libraries; Figure 2: Book Catalog Card--for libraries abroad; Figure 3: Serial Catalog Card--for domestic libraries; Figure 4: Serial Catalog Card--for libraries abroad; Figure 5: Western-language Catalog Card processed by the Chinese MARC).

Access points are: system identification number, title in English or in Chinese or in Romanized form, author in Chinese or in English or in Romanized form, corporate author in Chinese or in English or in Romanized form, Chinese Classification number, title/author in Chinese , English, or Romanized form, ISBN, ISSN, CODEN, series in Chinese, English or Romanized form, and subject in Chinese, English or Romanized form.

4. Conclusion And Future Outlook

The design of Chinese MARC format is not only best suited

for Chinese libraries in handling both Chinese and Western language materials but also for other libraries with East Asian collections. All angles involved with Western and Chinese materials handling either in Chinese libraries or Western libraries have duly been treated with careful deliberations. Countinuous revisions will be made and updated by public announcements either in the or in the *Library Association of China Newsletter* or in the *NCL Newsletter*.

The next project for the Chinese MARC Working Group is the task of developing formats for rare books, name authorities and thesaurus. With the advent of such formats, MARC records will have more comprehensive coverage and better quality control.