BIOGRAPHICAL AND BIBLIOGRAPHICAL DATABASE OF CHINESE STUDIES
An Indispensable Tool for Research

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ABSTRACT

Chinese Studies have gained academic interest all over the world, but there have not been enough reference tools available. From research in Taiwan and the author's efforts in the United States, a database has been developed, starting in 1981, that is a Who's Who and What's Up in Chinese Studies. The author urges scholars to get together and streamline the means of mutual interaction.

Introduction

The term "Chinese Studies," also known as "China Studies" or "Sinology," is used to refer to studies on China in the disciplines of humanities and social sciences. Such subjects as Chinese anthropology, archeology, arts, economics, education, geography, history, language, law, literature, philosophy, political science, religion, and sociology all fall into the broad category of Chinese Studies. It is a newly-developed term, originated in the Western hemisphere, comparable to the Chinese term of "Kuo Hsueh -- national studies" and "Han Hsueh." However, Kuo Hsueh is more limited in its coverage, as it concentrates on the period of ancient China only, whereas "China Studies" or "Chinese Studies or "Han Hsueh" covers the above-mentioned topics ranging from ancient time to the modern era.

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During this presentation, "Chinese Studies" is used throughout the text for the purpose of consistency.

Chinese Studies has had a long history, and as a discipline it has gained increasing interest in the academic community all over the world. By 1948-49 in the United States, it had become an integral part of college and university area studies, with the help of foundation grants and government funding. From the following figures, we can become aware of how much interest there is in Chinese Studies. As of 1989, in the United States alone the Association for Asian Studies had a membership of 1831 people who identified themselves as interested in Chinese Studies. The forty-second annual meeting of the Association of Asian Studies, which took place on April 5-8, 1990, in Chicago, had forty-five panels, ten roundtables, and 121 paper presentations on China.

There are almost one hundred American universities and colleges offering undergraduate and graduate courses in the field of Chinese Studies. In support of study and research in Chinese Studies, there are ninety-some libraries and almost fifty research centers affiliated with universities.

Many foundations, such as the Ford, the Fulbright, the Guggenheim Memorial, the Luce, and the NEH Foundations, the Council for Learned Societies, and the Center for Chinese Studies at Wang Institute of Graduate Studies, all have been enthusiastic in supporting research-related activities in the field. Such funded research projects have resulted in many significant findings and publications essential to the development of Chinese Studies.

European academic endeavors in this area have also been impressive. The famous studies led by Joseph Needham resulted in the voluminous publications Science and Civilization in China and Science in Traditional China: A Comparative Perspective, which have had a great impact upon Chinese Studies. The School of Oriental and African Studies in London, the Centre de Recherche et de Documentation sur la Chine Contemporaine in Paris, the Documentation Center for Contemporary China of the Sinological Institute at Leiden in the Netherlands, and the Institute of Asian Studies in Hamburg offer various courses in Chinese Studies. In addition, the British Library and the Bibliotheque Nationale provide a wealth of resources important to the study of China.

In the Republic of China on Taiwan, we have also witnessed a surge of interest. During the period 1982-88, research on Chinese-related topics boomed. Prof. C. K. Wang's analyses of research projects, academic conferences, publications, degrees conferred, the establishment of the Center
for Chinese Studies, and so forth, during this six-year period indicate their growing and glowing status in Taiwan, as shown by the following examples: 11

1. Research projects
   A total of 264 research projects were conducted, with 25 percent of the projects in the field of history; 25 percent in Taiwan Studies; 19 percent in anthropology/ sociology; and so on.

2. Academic conferences
   One hundred thirty-one Chinese Studies-related conferences were conducted, with a total presentation of 2845 papers and an average of almost twenty-two conferences per year. Thirty-six conferences on Chinese history were held during the six-year period; literature came in second (twenty-two conferences) and Chinese philosophy ranked third.

3. Publications
   Ten thousand, four hundred, and ninety-nine publication resources have to be made available and accessible. So far, very few up-to-date reference materials have been produced to facilitate research and communication in the field. 12 The apparent need for such types of reference tools led to the development of the database described below.

4. Doctoral degrees conferred and professional recruitment
   In addition to the 215 doctoral degrees conferred in the fields of Chinese literature, history, and philosophy in Taiwan in 1982-88, sixty-one students were sent abroad by the National Science Council to pursue further studies in Chinese Studies-related disciplines. The National Science Council also recruited seventy-three people who majored in related disciplines to come back to Taiwan either to work or to teach.

Increasingly, Chinese Studies has become an important discipline. However, not enough reference tools have been available. Bibliographical and biographical materials are instrumental to research projects; scholars need to communicate with one another on the same interest. Accordingly, scholars' names had been collected into a database by the end of 1986. It was
updated by another survey in January 1987. The database now holds biographical and bibliographical information on 1324 scholars in the field.\textsuperscript{13}

Database Genesis

The database is based on both biographical and bibliographical information crucial to the study of China and the quality of scholarly research. Since 1981 the Center for Chinese Studies, located in the National Central Library in Taipei, has attempted to develop a database on Chinese-Studies scholars who reside in Taiwan. The Center started the project with a survey of China scholars in Taiwan by sending questionnaires to pertinent faculty members at universities and researchers in research institutions. The questionnaire covered items such as name, birth date and place, education, experience, major, addresses, telephone numbers, and works (including books and articles). Data on 684 scholars in the field of Chinese Studies, including 1413 monographs and 9086 articles, were published in Taiwan in the same six-year period. Two thousand, nine hundred, and eleven (28 percent) were on Chinese history; 1620 (15 percent) on Chinese literature, and 1285 titles (12 percent) on Chinese philosophy.

Realizing the urgent need for such reference material, from 1984 to 1987 the author collected information on some eight hundred China scholars who reside in the United States. In order to avoid duplication of efforts, an integrated but multi-purpose database is being designed as a Who's Who-type of reference tool which will be in both published and on-line formats. In the spring of 1990 a new questionnaire sent to these scholars for updating. It was estimated that the survey and modification of the software would both be completed by the fall of 1990. Subsequent to editing and processing, the preliminary product was expected to be available by 1991, with continuous bi-annual updating and publication in the future.

Information Coverage

The following information is covered in the database.

1. The field of biographical data covers system identification, Chinese name, English name, romanized name, alias, birthplace, sex, birth date, office and residence addresses and telephone numbers, education including graduating department and institution, dissertation/thesis titles, highest degrees obtained,
expertise code, level of language proficiency, and awards granted.
2. The field of experience covers such information as current position, previous positions, and names of organizations in which they were held.
3. The field of bibliographical information provides room for 999 works for each entry. It records type of publication (monograph or article), and title, date, place, publishers, and number of pages. For articles, periodical or collection title or title of proceedings, volume numbers, and page numbers are recorded.

Database Functions

The system is designed with the concept of user friendliness and flexibility in its functions of database maintenance, report generating and printing, and on-line retrieving. Biographical and bibliographical materials can be updated, edited, and deleted on-line with great ease. The following print-outs are available:

1. List of Chinese Studies subjects
2. List of Chinese Studies subtopics
3. Classification numbers
4. Individual verification sheet used for each biographee to make corrections
5. Who's Who in Chinese Studies -- arranged by Chinese names in the order of strokes and English or Romanized name in an alphabetical order, with both monographs and periodical articles arranged in a reverse chronological order
6. List of scholars arranged by subjects in which they specialize
7. Bibliography of individual scholar's works arranged in a reverse chronological order by publication date with indexes
8. Bibliography of scholars' work arranged under subject in a reverse chronological order with indexes.

These printouts with various indexes can also be published separately as useful individual reference tools. Each of the following items can be searched on-line independently for immediate access; they can also be retrieved under multiple conditions or combinations of condition by using "and" to link the following itemized information:

1. System identification number
2. Names: Chinese, English, or Romanized
Fung: Database of Chinese Studies

3. Name of graduating university
4. Name of graduating department
5. Subject of specialty
6. Specialization code
7. Language
8. Age
9. Organization and department in which the scholar works
10. Degree.

Database Structure

The structure for the database of scholars residing in Taiwan, Republic of China, developed at the Center for Chinese Studies is basically a rational database with identification of fields. Now, with the addition of scholars residing in the United States, the software will be modified to the structure of a full-text database. "And," "or," "not" (Boolean logic) will be applied.

While exploring the most efficient structure for this database, we have looked into various databases being developed for Chinese Studies locally at the Academia Sinica. These are helpful for the modification of the software for this particular database in Chinese Studies. I therefore feel that a brief description of these systems might be useful. It is hoped that all these full-text databases will eventually be linked with the Biographical and Bibliographical Database of Chinese Studies in order to facilitate accessibility to needed information with utmost efficiency.

Brief Description of Selected Existing Systems/Databases

In Taiwan, modern information technology is effectively applied to library automation, database building, and office automation. The author does not attempt to report on each and every one that is being developed and used. Only a few which are closely related to Chinese Studies will be described, as follows:

1. Legislative Information System (LEGISIS)
   Developed by the Information Center of the Legislative Yuan on the VAX 8530 system, it offers three useful databases at the present time:
   a. LEGISIS Thesaurus: this database of some 2000 terms serves as an on-line dictionary of legal terms.
b. The full text database of Acts, Laws, and Codes of the Republic of China: consists of 560 types of legal documents (12,000 items), with description of each document's contents and structure. The access points include dates, content summaries, categories, and subjects.

c. Legislatrors Interpellation System: covers more than 14,000 interpellations made by the legislators since September 1984. All interpellations raised by legislators concerning administration, proposals, and budgets can be retrieved via the name of the legislator, pertinent subjects, government organization's name, keywords, and session numbers in which the interpellations were raised.

2. National Central Library Chinese Rare Books (Shan-pen) On-line Catalog plans to include some 15,000 titles of the printed and movable-type editions prior to the Ming Dynasty (A.D. 1368-1643), rare editions after the Ch'ing Dynasty (A.D. 1644-1911), manuscripts and editions revised by famous scholars, and hand-written editions, input into the database in accordance with the China MARC Format. Its multiple access points include title, author, class/subject, preface or epilogue writer, engraving sponsor, engraving place, engraver, previous collectors, call number, dates of the author, type of edition, binding format code, accession number, and system identification number. In addition, the National Central Library also provides an automated National Bibliography (including all Chinese books published in Taiwan since 1981), Periodical and Government Document indices (indexing 800 periodicals published in the Taiwan area and nineteen government documents), and a Union Catalog of Chinese Periodical Literature covering 8000 periodicals held by 170 local libraries. These are also basic tools for researchers in the Chinese Studies field.

3. The Academia Sinica also has built up the following databases:

a. Ming/Ching Dynasties Archival Materials Database
   This IBM PC/AT-based database contains approximately 200,000 official reports of Ming and Ching Dynasties, supplying information on dates, reigns, emperor names, types, and those responsible for drafting of reports.
b. Land Reports
This is a collection of archival materials on Land Reports gathered in the Hsinchu area by the Japanese Government during its occupation of Taiwan. This database, consisting of 472 volumes of 250,000 land reports, is essential to the study of Taiwan's economic history, the formation of land developments, and the relationship between landowners and tenants. Pertinent statistics can be generated to verify various hypotheses.

c. Database of Ancient Tombs
Using AT&T 3B/2, UNIX, and Informatics/SDL database management systems, data pertaining to 3040 tombs of the Han Dynasty have been processed. The database contains information on each individual tomb's date, structure, location, direction, path, decoration, inscription, accompanying burial items, method of burial, and the structure of the coffin. Related statistics on dates, location, and buried items pertaining to any of the above-mentioned items can be generated.

d. Chinese Electronic Dictionary
Based on Kuo Yu Jih Pao Tze Tien (Gwoyeu Ryhbaw Tsyrdæan), the most popular Chinese dictionary in Taiwan, the Computer Center of the Academia Sinica developed a database of Chinese dictionaries and names in "Chinese Electronic Dictionary" (CED). CED is to be used as a machine-readable tool for various Chinese information-processing applications, especially for the study of Chinese computation linguistics.

e. Full Text Database for Chinese History
This pioneering project of the Chinese electronic book was launched in July of 1984, aiming at processing Chinese historical texts of the twenty-five dynasties. These texts contain 60 million Chinese characters. As a prototype, Shih-Ho-Chih (Treatise on Food and Money) has been implemented to three different systems.

The databases soon to be completed are Shih Chi, Han-Shu, Hou-Han-Shu, San-Kuo-Chih, and Shih-Ho-Chih. It is expected that the entire database cluster will be completed by June 1990. Controlled vocabulary (keywords) and free-text searching are currently available. Controlled
vocabulary (keywords) are classified into six categories: names, places, time, official titles, references, and major events. Six inverted list files were built to include these keywords and the pointers of the corresponding basic text elements.

Materials sought and viewed on the terminal can be copied to the readers' own files and are to be used along with the readers' own notes. Concordances can be generated as well. Statistical analysis of Chinese character/word usage is the most appropriate application and welcome feature of this system.

Summary

From the above description, we realize that modern information technologies have been successfully applied to bibliographic control and database building of Chinese Studies resources. However, each application has been developed independently and in a tailor-made sense without an overall plan; they have been devised to meet the needs of one or two institutions. Some of them which are designed to be shared are not yet in a network mode, and are therefore still not shared.

In order to share resources and make the best use of existing information, it is imperative to come to a consensus that database structure should be designed to accommodate all needs, that new storage media such as CD-ROM and hypertext technology be adopted, and that the results of the forthcoming research on networking soon be made available for sharing. It is evident that the Center for Chinese Studies in Taipei plays a prime role in this important task. It is, therefore, recommended that: 1) a conference be called to discuss the various needs of Chinese Studies resources, and to identify necessary tools to be compiled and made available to readers through the use of modern technology; 2) short, medium, and long-range plans be drawn accordingly for implementation, based on the conference resolutions; 3) standardization of terminologies, keywords, and subject headings in the field of Chinese studies be recognized as necessary; and that 4) redundancy of efforts be avoided and cooperative efforts promoted.
NOTES

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14. 同註13。

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