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# Remote Access to Local Data Collections: A UC Davis Experiment

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## INTRODUCTION

The East Asian Business and Development (EABAD) Research Archive (Institute of Governmental Affairs, University of California, Davis) is currently in the process of implementing a system that will facilitate remote access to its local data collections. This paper provides background on the Research Archive and discusses the development, design, and organization of its public access system, *Asia Online*.

## BACKGROUND

The EABAD Research Archive houses printed and machine readable information on East and Southeast Asian corporations and economies. Established in 1986, the EABAD Archive is the only facility in the United States that systematically collects materials supporting research on the firms and inter-firm networks of Asia. [Background on the Archive and the research projects it serves was provided in a previous paper "East Asian Business and Development Research Archive: A Unique Data Resource" *IASSIST Quarterly* 14 (Summer 1990) :3-8. In addition to its printed collections, the Archive is one of only two academic facilities in the world that acquires and develops computerized databases supporting the study of Asian corporations and economies. The other is the University of Hong Kong's Mong Kwok Ping Management Data Bank.

In 1990, the Research Archive was awarded an infrastructure grant by the President's Office of the University of California. One of the primary components of that grant project is the establishment of an online computer system to facilitate inter-campus access to the resources (both print and machine readable) of the EABAD Archive. The grant provided a one year award of \$75,000 to establish the online system in the hopes of enhancing scholarly cooperation and access to resources supporting research on Asia on the 9 UC campuses. The system presents some options for extending access to highly specialized, yet topical, research data. It should also provide an opportunity to assess the feasibility of remote access to local data collections and to gain practical experience that will allow us to identify the strengths and limits of our chosen remote access system.

## SYSTEM SPECIFICATIONS

From its inception, the system was intended to be accessible both via direct Internet connection and via the UC systemwide online library catalog MELVYL. Mounting the system on the Internet provides scholars in the UC system and in many locations worldwide with direct, interactive access to the system. A linkage to MELVYL provides a high degree of visibility for *Asia Online* within the UC system, while its specialized bibliographic files complement and extend the usefulness of MELVYL. The requirements for these connections guided the selection of both system hardware and software.

The system is running on a 33 Mhz 80386 PC with 8 MB of RAM and a 338 MB hard disk drive. For security reasons, it was deemed best to mount the system on a dedicated machine, and a large, fast PC provided the most cost effective platform for this purpose. In addition, the EABAD research program has been fortunate enough to develop a donor relationship with the Taiwan-based computer manufacturer Acer. In 1989, Acer donated 3 20Mhz 80386 PCs and a file server with 326MB hard drive and Novell Netware. This hardware serves as the core of our in-house LAN. In the spring of 1990, Acer America Corporation donated the hardware for the system.

The operating system of choice for the project was UNIX. There are several reasons for this. First, the UNIX implementation of the TCP/IP protocol facilitates easy interactive access to both the Internet and MELVYL. UNIX's open architecture also makes program development relatively fast and easy. The Santa Cruz Operation, the manufacturer of the top selling UNIX for the PC environment, donated its operating system to the project. In addition, an SQL DBMS, Integra, that incorporates links to the C programming language was acquired for the database functions of the system. Using these products a user interface is being developed that supports "dumb terminal" access. The system software takes a "plain vanilla" approach in order to support the broadest possible base of users and to interface easily with MELVYL.

## SYSTEM DESIGN AND ORGANIZATION

As initially conceived, the online system will have 3 basic components. These are outlined briefly below.

First, the system will feature a public message service (or "news" system) to facilitate access to information about Asia-related research activities. Types of information on this service may include the following:

- announcements of relevant events (lectures, conferences, seminars, etc.),

- information on funding sources for Asia-related research,

- general information of interest to Asia scholars in the UC system,

- publications lists from the numerous institutes and research programs on the campuses,

- research related information including abstracts of UCOP Pacific Rim projects or other research programs,

- online versions of newsletters from such groups,

- inquiries from scholars,

- listings of appropriate research resources on UC campuses (computer files, library resources, grant programs, etc.).

A second component of the system will be online access to select public domain statistical data held by the Research Archive. These files will be mounted in a standard microcomputer file format (such as dBase compatible or Lotus worksheet), along with documentation files and will be available for downloading and local use by scholars.

Finally, we will incorporate bibliographic files in the EABAD system. The first will be a database of our own holdings (both print and machine readable). We also intend to mount the United Nation's *Asian Bibliography*. *Asian Bibliography* is a semi-annual publication of the UN's Economic and Social Commission on Asia and the Pacific that provides citations to a wide range of literature in the social sciences.

At present, the prototype system has just come up for public access. It supports all of the functions outlined above except the bibliographic and statistical files which are expected by Fall of 1991.

Once the system is fully established, the final activity for

the project will be an evaluation. This evaluation will be based a variety of information. A primary concern will be the extent to which the online system has strengthened the activities of the Research Archive. This may include such subtle and non-quantitative measures as the extent to which it has fostered ongoing research, new collaborations, or greater awareness of the research activity of EABAD. A second method of evaluation will be based upon data gathered from online users. This will include both an examination of the volume of usage, the distribution of users from among the campuses and academic disciplines, the intensity of usage by individual users, and any feedback received from online users, and the extent to which interlibrary lending has increased due to the online database of EABAD holdings.

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