

Digital Libraries and Universal Access in the 21st Century: Potential for Chinese Americans

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Abstract:

First of all, as a general comment, the impact of digital libraries and universal access in the 21st century is widespread and not limited specifically to a specific segment of the world communities. Because of the dramatic shrinking global dimension, the use of digital libraries and universal access has literally no boundary of any kind. However realizing that this CALA program is to address specifically the information needs of the Chinese American communities, and how to serve them better in this digital age, I shall present this talk with that emphasis in mind.

I shall not include in my talk the kind of “digital library resources” which we have been familiar with for some time, such as the large number of online and electronic databases, electronic publishing resources such as electronic books. I believe that the usefulness of these has been largely recognized. Instead, I will cover only the digital libraries for which massive amount of valuable multimedia resources have been created digitally or transformed to digital form. These resources were then further organized with appropriate metadata (or generally know to many information seekers as detailed descriptive annotations), and then effective technological methods and tools were used to provide both traditional and cutting-edge retrieval capabilities to the user communities.

“A picture worth a thousand words,” thus my talk will be highly visual. I shall use two projects which I am heavily involved as examples to show how activities like this can bring information services to the Chinese American communities and the world citizens in a way not possible before. These two projects are:

1. *The Million Book Digital Library Project* for universal access. Under the leadership of Prof. Raj Reddy of Carnegie Mellon University, I am privileged to serve as the co-PI of the *US-China Million Book Digital Library Project*, for which over 14 leading research and higher education institutions in China such as the Chinese Academy of Science, Peking University, Tsinghua University, Zhejiang University, Nanking University, and Fudan University in Phase I, and 8 others in Phase II in China, are massively digitizing invaluable Chinese and foreign non-copyrighted resources for universal access. In addition to discuss how and why these digital resources can be of invaluable use and value for the Chinese American community and the world

citizens for education, research, and enrichment, collaboration for providing collections for addition to this Million Book Universal Library will also be solicited.

2. *Chinese Memory Net (CMNet)* and *Global Memory Net (GMNet)*. *CMNet* is one of the very first US National Science Foundation/ International Digital Library Projects since 2000. It has established a model for international collaboration both for content development as well as for cross-disciplinary research specifically in the multimedia areas. Once it is possible for developing a multimedia digital library in one subject disciplinary or for one geographical area, it is upward scalable to include more subject areas and bigger geographical areas. This was the case with the expansion of the scope of *CMNet* to *GMNet*, which literally has space holder for all countries in the world. Because of the emphases of this program, I shall provide only the opening page of *CMNet* in this abstract:

The screenshot shows a Netscape browser window with the URL http://memorynet.org/web_final/cmnet_asia.html. The website header includes the title "GLOBAL MEMORY NET" and the text "NATIONAL SCIENCE FOUNDATION INTERNATIONAL DIGITAL LIBRARY PROJECT" and "PI: CHING-CHIH CHEN, SIMMONS COLLEGE". Navigation tabs include Home, Image Search, Video Search, Partners, About Us, and Contact Us. A sidebar menu on the left lists "Global Memory Net" and "By Geography" with sub-items for Asia (China, India, Malaysia), Europe, and South America, along with "Projects A to Z", "Archives A to Z", and "Collaborative Research". The main content area features the title "*Chinese Memory Net (CMNet): US-Sino Collaborative Research Toward A Global Digital Library in Chinese Studies*" and a paragraph of text describing the project's goals and the role of Ching-chih Chen. To the right of the text is a vertical strip of images, including a terracotta warrior, a black dog figurine, and a large jar. Below the text is a section titled "CMNet Collaborators:" with a dropdown menu labeled "Please Select a Collaborator".

GLOBAL MEMORY NET
NATIONAL SCIENCE FOUNDATION
INTERNATIONAL DIGITAL LIBRARY PROJECT
PI: CHING-CHIH CHEN, SIMMONS COLLEGE

Home Image Search Video Search Partners About Us Contact Us

Global Memory Net

By Geography

- ▼ Asia
 - ▶ China
 - ▶ India
 - ▶ Malaysia
- ▶ Europe
- ▶ South America

▶ Projects A to Z

▶ Archives A to Z

▶ Collaborative Research

Chinese Memory Net (CMNet): US-Sino Collaborative Research Toward A Global Digital Library in Chinese Studies

Chinese Memory Net (CMNet) is intended to bring selective academic educational and research partners in the U.S., China, and Taiwan together working toward an effective and sustainable global digital library in Chinese Studies. Each collaborator of this complimentary and synergetic group possesses experience, knowledge, expertise, and capability in different but related research area(s). Each participating institution contribute either part of its superb Chinese culture and heritage collection, which form the core of Chinese Memory, or cutting-edge techniques to facilitate the creation of a multimedia digital library. The unique collections are essential to education and research, but most of them are not accessible due to distance, form, and technical barriers. This project is to find new ways to enable academic users to access and exploit these significant research collections via global network. *CMNet* is directed by Ching-chih Chen of Simmons College, and her collection contribution is related to The First Emperor of China's 7000+ terracotta warriors and horses. Her interactive videodisc and multimedia CD-ROM as well as large amount of raw resources have proven to be invaluable for *CMNet*. These are products of Dr. Chen's earlier *PROJECT EMPEROR-I*, supported by the US National Endowment for the Humanities (1983-1986).

CMNet Collaborators:

Please Select a Collaborator

From this page, one will be able to retrieve invaluable images of the First Emperor of China, for example, by conducting traditional keyword search using Google protocol, or using the cutting edge content-based image retrieval techniques. These will be demonstrated in real time during the presentation. The potential of this type of digital resources to Chinese American community will be elaborated in greater details during the presentation.

CMNet can cover all worthy contents related to Chinese culture, history, science and technology, etc. (this is why called Chinese memory). The value of this to Chinese American community should be self evident. On the other hand, *GMNet's* provision of the world memory contents in multimedia format will be of great value to the Chinese American community as well since digital technology has made it possible for one to stretch their imagination and need for information and knowledge far beyond the traditional boundaries. These will be discussed in greater details during the online presentation.