A. Project summary

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

CMNet (Chinese Memory Net), a US-Sino collaborative research project, is proposed to bring selective academic educational and research partners in the United States, Taiwan, and China together working toward an effective and sustainable global digital library in Chinese Studies. Each collaborator of this complimentary and synergetic group of the highest calibre possesses experience, knowledge, expertise, and capability in different but related research area(s). Each participating institution will bring to the research superb collections of Chinese culture and heritage, which form the core of Chinese memory. These collections are unique and essential to education and research, but currently are not accessible or usable because of distance, form, and technical barriers. This research project is to find new ways to enable academic users to access and exploit these significant research collections via global networks.

The immediate objectives of the project are to avoid duplication of efforts, to prevent the development of fragmented and non-interoperable digital systems in Chinese studies already taking place in different parts of the world, to define characteristics of an interoperable system in dealing with Chinese information resources, to find possible solutions for multilingual (specifically Chinese) language processing, and to develop commonly accepted standards of methods, protocols, tools and technology for system development in the current networked environment. This research project will also investigate the use of current networks of different speeds, bandwidth, and configurations available to project partners for digital data and image transmission for enhancing education and research in Chinese studies. Of specific interest will be the investigation of the use of vBNS connections between the American I2 collaborating institutions -- Cornell University, University of California at Berkeley, and University of Pittsburgh; and our partners in the Mainland China – Tsinghua University and Peking University in Beijing and Jiao-tung University in Shanghai; and Taiwan – National Taiwan University, National Tsinghua University, and the Academic Sinica.

In a series of intensive meetings and discussions, collaborative planning efforts will define essential research agendas and activities to be partitioned for partners to investigate. The partners will draw on their substantial experience in database construction, multilingual information system, metadata, digital imaging, network development, and the like to lay the groundwork for a new and effective information system. This system will transcend present inhibitors such as geography, time, and the cost of international consultation; and open up access to Chinese cultural and historical information resources and artifacts for a distributed set of international users taking advantage of the currently available advanced global network capabilities.

The research team will first attempt to address the baseline problems and issues related to standards such as metadata, protocol, and multilingual processing, and then the use of networks. The resulting commonly agreed standards and tools, and the knowledge gained from exploring the use of networks of varying speeds will simultaneously enlarge the understanding for creating multilingual, multinational digital libraries. They will also set a healthy direction and provide much needed guidelines for all those interested in developing their virtual library and museum collections in Chinese studies and/or other subject areas. By developing different prototype virtual library and museum collections at participating institutions, all academic partners will benefit by the enriched opportunities to compare and contrast materials and thus will accelerate the pace of discovery. This will undoubtedly broaden the use of and access to the unique digital collections in Chinese studies by knowledgeable scholars all over the world.

The Next Generation Internet will transform the way we live, communicate, work, learn, and conduct research. But, few in Chinese studies have the privilege to experience the use of this because of the lack of such network connection. The I2 and Taiwan partners of this research group are privileged to have vBNS connections. Therefore they will capitalize this rare capability available to them, conduct research together on technical practices, and develop organizational policies. Alternatives in using networks of much slower speeds will also be explored particularly between the US partners and the partners in China. These research results will be significant because they will contribute to the body of knowledge required to create a global collaborative multilingual information system, which is vital for the global sharing of much needed digital collections for education and research. It is

certain that as more research efforts made to formulate approaches that are responsive to emerging scholarly practices, that more effective and easy-to-use systems can be created.