

Digital Libraries and Universal Access in the 21st Century: Realities and Potential

Ching-chih Chen

Professor, Graduate School of Library and Information Science

Simmons College, Boston, MA 02115

E-mail: chen@simmons.edu

When I was giving an invited speech recently at the 3rd *China-US Library Conference* in Shanghai in March 2005, I could not help to reflect on the keynote speech which I gave at the 1st *China-US Conference* in Beijing in August 1996, entitled "Global Digital Library and Universal Information Access." In 1996, I stressed the need to plan for global information infrastructure to prepare for the coming of the global digital libraries. Yet less than a decade later, with the wide spread use of the Internet and World Wide Web, we are witnessing that much of what I advocated in 1996 on the use of multimedia and global network are not only the mainstream practices, but have been taken for granted. In fact, we have come a very long way from the use of interactive multimedia technology in the workstation environment to the global networked environment. We have moved from the use of hardcopy and analog resources to digital content, which users can search, retrieve and use instantly to meet their needs over the global network with no national boundaries. We have also moved from the offering of multimedia content of one specific subject topic to the multilingual digital content of all media formats on all mixed subject topics to the world instantly. We are truly living in a new period of unprecedented opportunities and challenges! So, in this digital era, we have witnessed the exciting convergence of content, technology, and global collaboration in the development of digital libraries with great potential for universal information access.

Thus, today's information seekers, regardless whether they are general public, school children, or those professionals from research and higher education communities seek needed information in very different ways from before, for coping, entertainment, enrichment, education, and research. From the information resources point of views, the old model of "owning" a large collection has given way to "sharing," and the new emphases have shifted from possessing large "physical libraries" which value their large number of volumes, to "virtual libraries" digitally distributed all over the world. One can access these resources any where, any time, and from any places with digital devices.

Since mid-1980s, I have experienced much of the transformations just described above up-close and

personal through my own R&D activities and involvement – from the creation of interactive videodisc and multimedia CD in the 80s and 90s to organizing major international conferences on new information technology (*NIT* conferences) around the world for promoting global cooperation and interchange of ideas, from leading a current major digital library project, *Global Memory Net*, supported by the International Digital Library Program of the US National Science Foundation, to being the co-PI of the *US-China Million Book Digital Library Project*, a sister project of the India's International Digital Library Portal (*US-India Million Book Digital Library Project*) for universal access (<http://www.ulib.org/html/index.html>). I was privileged to have the opportunities to share my believe in the potential of global digital libraries like *Global Memory Net* with my Indian colleagues in February 2004 at the *ICDL 2004* in New Delhi, the 10th *Annual lecture on Infomratics* in Bangalore, and the *Regional Meeting* in Mysore. I was also greatly honored to know that "information of value shall be shared freely across the world" was advocated by the Honorable President Dr. A. P. J. Abdul Kalam during my private audience with him.

It is fair to state that while technologies are more than ready to enable us to provide universal access, we are still facing many uphill battles. For example, Digital divide is a serious barrier to provide universal access to a large portion of the world citizens who have no knowledge of and no means of access to digital devices. This problem will take time and likely difficult for us as information professionals to address. What we can address is related to "content"-based issues. Content is the key to any global digital library, and it requires the content owners and providers to be willing to make them digital and share. While projects like *Million Projects* and more modestly, *Global Memory Net*, have made some progresses in this area, much more is needed. Only with rich and useful contents, the real potential for education including e-learning, research, enrichment, etc. can be fully realized.

We are living in exciting time with great opportunities. Let's collectively work together to share our invaluable human knowledge resources globally!