## The Digital Library of the Middle East

## Joyce Ray Institute of Museum and Library Services

Writing about the proposed Digital Library of the Middle East reminds me of the story of the blind men and the elephant—it is such a large topic that a single person can grab hold of only one part of it. To see the whole picture, the parts have to be joined together. The participants in this workshop all have something to contribute, and our task will be to put the parts together to form a coherent picture and plan.

When I envision The Digital Library of the Middle East, I see it as the nerve center of a wide network of libraries and museums, collectively representing the world's recorded knowledge of the Middle East. These institutions will contribute digital images of their physical holdings, as well as descriptive information that provides context and helps users find and understand the online resources. Partnering institutions will work together to create and maintain this online knowledge repository, which we call a digital library. The repository will make it possible for users to search within the specific collections of a contributing institution, or to search across all the holdings together for resources that are intellectually related though physically separated.

This digital library will serve scholars, educators, and learners of all ages throughout the world who have questions and curiosity about the cultural heritage of the Middle East. Beyond that, the process of developing and extending this repository will in itself pose complex challenges and research opportunities in the advancement of digital libraries and advanced networks. The network infrastructure, to ensure ubiquitous and ready access; the digital library architecture and governance, to ensure seamless integration and sustainability of content; and the challenges of providing multi-lingual access as well as training the digital library managers who will build and manage repository must all be addressed. The fact that libraries, museums, archives, and manuscript repositories have all developed different ways of establishing intellectual control over their holdings in itself poses a serious challenge.

I see this digital library functioning at its most basic level as an online catalog that can be searched by collection, subject, institution, or by other means such as format or geography. But it will be more than an online catalog. The Digital Library of the Middle East will permit access to the digital assets themselves, whether these are documents, photographs, artworks, recorded sound, artifacts, or other forms of knowledge. It will link related resources that can provide the context for interpreting objects such as historic texts or artifacts. It will support the exchange of information and ideas within communities of practice, such as communities of scholars and teachers. It will provide contextual essays and educational applications appropriate for different grade levels, along with curriculum guides and lesson plans for teachers. These kinds of products and services will add value to the digital library well beyond what can be provided by a simple catalog or search engine.

At a higher level of development, the digital library can support advanced research from and about the Middle East and capture new knowledge—in the sciences, the arts, and current affairs—beyond what is currently preserved in libraries, museums and other cultural heritage institutions. Indeed, it may provide the means by which such knowledge that is originally created in and exists only in digital form can be preserved and added to the knowledge repository. These added functions will be enriched and supported by the vast underlying resources of cultural heritage institutions that are well described (and "findable"), securely preserved, and engagingly presented.

I commend the Bibliotheca Alexandrina and Dr. Serageldin for setting a high standard of excellence in digital library development and research. The realization that the new Library of Alexandria could not be resurrected as a physical repository of recorded knowledge on the scale of the original has given it the opportunity to concentrate on digital capacity. This fact—as well as the Bibliotheca Alexandrina's clearly articulated mission and vision—makes it unique as a library, both in vision and in action.

At the US Institute of Museum and Library Services (IMLS), which I represent, we realize that financial support is one of the biggest challenges that must be addressed in any large new venture. The cost of this undertaking is too great for any one organization to underwrite. Part of our strategy must be to cast a net wide enough to attract those who can fund one or more parts that will contribute to the whole. To that end, IMLS has been working with the Bibliotheca Alexandrina for about two years to plan and obtain funding for this workshop. Last June, we received word from the US/Egypt Joint Science and Technology Fund Board that our application for funding for the workshop had been approved. And we have also identified some specific ways in which IMLS can assist in building the Digital Library of the Middle East. At a planning meeting held in Washington last August (see the "Background" section of the workshop web site at http://www.sis.pitt.edu/~egyptdlw/background.html), we described our plan to issue a call for proposals for institutions in the US to develop a technical architecture and an initial aggregation of content from US cultural repositories, and to work with the Bibliotheca Alexandrina to create a shared repository and digital library structure. IMLS expects to add additional content by funding further digitization projects over the next several years. As we also support education and training programs in digital asset management in US institutions, we could support such programs conducted in cooperation with international partners that would enhance library resources and services in the US and globally.

The Digital Library of the Middle East will need content from libraries and museums throughout Egypt, the Middle East, and elsewhere in order to comprehensively represent the world's knowledge of the Middle East. The protocols established through collaborative efforts could form the basis for extending the repository exponentially, and may produce models for other large-scale collaborative digital libraries.

In the case of cultural heritage institutions, we are seeing in the US and Europe a strong economic case for putting museum and library content online. At this time, the European Commission is supporting a collaborative project of France, Italy and the UK to open the

European cultural heritage to worldwide access by providing access to the digital collections of museums, libraries, and archives from different European countries through a multi-lingual open source platform. By 2007 this repository will be able to retrieve digital collections dispersed across Europe. Recent studies have shown that sharing cultural heritage online does not diminish the prestige of the contributing institutions. In fact, wider public access and awareness enhances cultural value and not only contributes to cultural tourism and to regional and national economies, but also actually increases visits to cultural institutions, as people who have seen images online are inspired to see the originals.

To achieve the vision of The Digital Library of the Middle East, communities of scholars, educators, technical engineers and funders will all need to work together and with librarians and museum curators to resolve problems that inevitably arise with any bold undertaking. I hope the participants in this workshop will share this vision and will also help to recruit colleagues and supporters who can help to make this digital library a reality that will endure and become a new world resource. In this way, the promise of the first Library of Alexandria may be fulfilled.