3. Reports - International Conference on Digital Libraries

Introduction

Dr A P J Abdul Kalam, Hon'ble President of India inaugurated the conference on 24 February 2004 at Vigyan Bhawan, New Delhi.

TERI in partnership with Department of Culture, Ministry of Tourism and Culture, Government of India organized the ICDL 2004 (International Conference on Digital Libraries) during 24-27 February 2004 in New Delhi. Ministry of Communications and Information Technology, Government of India, Commonwealth Educational Media Centre for Asia (CEMCA) and Centre for Development of Advanced Computing (CDAC) were also associated with the conference. The Conference was inaugurated by His Excellency Dr A P J Abdul Kalam, Hon'ble President of India. Shri Jagmohan, Hon'ble Minister of Tourism and Culture, who is also the patron of the Conference, was also present and spoke at the inaugural function. Mr Dhanendra Kumar, Secretary, Ministry of Tourism and Culture, Government of India, welcomed the audience while Dr R K Pachauri, Director-General, TERI gave an introduction to ICDL 2004. Prof. N Balakrishnan, Professor and Chair, Division of Information Sciences, Indian Institute of Science, Bangalore delivered the Keynote address. Prof. Hsinchun Chen, Professor, Department of MIS, University of Arizona, USA gave the special address. Mr Vinod Bhargava, Associate Director, Information Technology and Services Division, TERI, proposed the vote of thanks.

Inaugural address by His Excellency Dr A P J Abdul Kalam, President of India

(Full text of the President's speech is available at http://presidentofindia.nic.in/scripts/ sllatest1.jsp?id=282)

In his inaugural address, the President requested the audience to evolve methodologies to share our Digital Contents without any barriers. This would truly speak of the technology as an integrator of people. He further urged them to pledge that we would share information of value freely to those citizens in the less privileged nations across the world.

Recommendations for a Digital India

The President of India, in his inaugural speech expressed the opinion that '… we have to make consistent national policies and procedures, which w ill lead to effective Management and control of the data leading to enhancement of national knowledge base … Policy makers should take into account of the standardization requirements, Inter-operability, copyright issues, classification of documents and selection and use of a number of library information systems available with various organizations in the country in different standards.' He further recommended '… deliberation of this issue in the conference and constitution of a multi-disciplinary task force for working out the draft policy document for implementation.

Based on these recommendations, Four sub-groups were constituted during these deliberations to deal with:

(a) Resources;

(b) Technology;

(c) Users; and

(d) Policy and management.

The following conceptual framework was a result of a carefully deliberated EU/DELOS-US/NSF Working Group on Digital Imagery for Significant Cultural and Historical Materials in 2003, but can be generalized for all types of digital Development. This model presents the interrelationship among three key components of any digital library work - "resources", "technologies" and "people" ("users"), thus should provide a good conceptual base for our deliberation. The complete report can be found at the NSF site as well as http://www.delosnsf-imaging.unifi.it.

A. Sub-group on Resources

Members: S Majumdar, H K Kaul, S M Dhawan, S Venkadesan, T.B. Rajashekar, & Sudha Gopalakrishnan

Source: Chen, Ching-chih et al., Report of the UNESCO/CI/NSF Working Group, on Digital Imagery for Significant Cultural and Universal Materials, 2001

It was felt that there is no need to create new contents. The focus should be on taking the existing contents to the web; and this must act as a single portal for everything that will personify India's yesterday, today and tomorrow. It will be a window to what India is all about. This can then be linked as integral part to the "global" resources for sharing with citizens of the world.

Some of the resources identified by the group are:

- Culture and Literary Heritage of India (will be showcased)
- Indian History and Science (will be showcased)
- Environment
- Tourism, Folklore and Music (to incorporate both tangible and intangible items)
- Adult Literacy Programmers and Government Publications
- Demography
- Learning Materials
- Medicine (Indian system)

B. Sub-group on Technology

*Member*s: V Ponraj, Jean-Marc Comment, Usha Mujoo Munshi, and G G Chowdhury

The technology for scanning and standardization of the format for storage and Delivery were discussed in detail. Technology for every resources is available e.g. palm leaves, microfiche, manuscripts, etc. Whatever be the resources, they have the Technology to take it to the web. Apart from this, technology for Indexing, Security and Delivery aspects were also discussed.

- **Virtual Reality** models will be created for the development of tourism.
- **Architecture** should be optimized between local storage and central repository.

Storage costs are coming down; therefore it would be more easily available.

- **Multiple language speech interface** Non-English speaking people (95% Indian) - can communicate through user-friendly interface.
- **A language independent, human mediated technology neutral solutions.**

Language independent technologies are only in the context of the research domain in the most advanced countries. In India, however, there are quite a number of people who could be human mediaries, for instance, in KIOSKS there would be a Chief Information Officer (CIO) who could act as a human mediator.

C. Sub-group on Users

*Member*s: Ching-chih Chen, D C Kar, and Subrata Deb

This group recognizes that the critical issue is providing access to digital archives in appropriate forms for widely different user needs. In order to do this well, various users and stakeholders need to be identified first. They can be classified in many different ways. For example:

General Population Categories:

- School children (kindergarten, primary and secondary)
- College students (undergraduate and graduate)
- Non-student general citizen (ranging from young to old to retired)
- Citizens of other countries

Educational Categories:

- Illiterate
- K-12 student
- College students (undergraduate and advanced degrees)
- Professionals at non-specialist levels
- Professionals and researchers with specialized trainings and preparations

Professional Categories–This runs the entire gamut of :

- All professional fields, from law to public safety, from art to science, from agriculture to medicine, from history to music, from philosopher to mathematics, etc…
- government policy makers at all levels
- educators of all subject fields and for all age levels, etc.

D. Policy and Management

*Member*s: Michael Seadle, OmVikas, Harsha Parekh

They have looked into the problems of the copyrights lock-in period.

The President has recommended that **Copyrights lock-in period** be reduced to 25 years.

- **Recommendation for an Online Registry** - Every digital material produced in this country should be registered with the Digital-Object- Identifier (DOI).

- A **Depository** should be created for our heritage as well. This depository would provide authenticity and ownership as well as will enable preservation of intellectual property rights.

- **Copy-left Provision** This provision will enable a copyright holder to give up the rights before or after a certain period. Provision for this should be kept open.

- **Compulsory Licensing** has been well tested for cable TV applications in this country. Compulsory licensing is also recommended for the Digital India

- **Moral Rights and ethics in the Digital World** It is possible for anyone to manipulate the information and claim the credibility for the work as his/or her. It is, therefore, necessary to make sure that those who deal with digital documents are of elite character with strong ethics.

The group suggested the need for strong articulation so that India can influence the world bodies, whenever India is represented in WIPO, the World convention bodies, etc. India needs to have a digital-policy of her own, so that we don't have to listen to what others say and get dragged into what has been happening elsewhere.

Panel discussion

The panel discussion on the last day dealt with 'digital library policy and strategic planning'. Chaired by Mr K K Jaswal, Secretary, Ministry of Communications and Information Technology, Government of India, members of the panel included reputed scientists and bureaucrats in this field, such as Prof. N Balakrishnan, Indian Institute of Science, Bangalore, India; Dr Om Vikas, Ministry of Communications and Information Technology, Government of India, Prof. Tengu Mohd. T Sembok, Universiti Kebangsaan, Malaysia, Prof. Norman Wiseman, University of Nottingham, UK; Mr B P Sanjay, Indian Institute of Mass Communication, New Delhi; and Dr Leena Srivastava, Executive Director, TERI.

The panel discussion touched upon the current status of digitization in India and went on to ascertain why and how India should build up its digital libraries. The panelists highlighted approaches and concerns that policy formulation should take into consideration. It was felt that digital libraries should not be just about the abundance of knowledge but should also consider whose knowledge, what kind of knowledge, and at what cost it is embedded in digital formats. As these libraries are meant for different groups of people, their usefulness to society should be ascertained and some mechanisms put in place so as to plough back the benefits to communities that are the real holders of knowledge.

Experts, while discussing the issues of technology development and compatibility, did acknowledge that the issues of scaling, speech input and output, resource allocation, and of scaling intellectual property access to all kind of users still need to be resolved and so do the research issues of OCR (optical character recognition) for Indian languages, machine translation, speech recognition, automatic summarization, search engines, and handling large distributed databases, to name a few. Issues identified from the perspective of the user were: identifying what user wants, structure of digital libraries, ownership and accountability of data available in these libraries, and a system in place to digitize indigenous knowledge without jeopardizing the owners' intellectual property rights so that digital libraries become a vehicle of the transformation towards a knowledge society.

Reports