CAGI BULLETIN. 16 (4) October - December 2006.



## Creating Institutional Repositories and Digital Libraries Using UNESCO's GenISIS

## R. Raman Nair

Introductory Lecture at the Workshop on Managing e-Document Collections Using UNESCO's WINISIS/GENISIS. Kottayam, Mahatma Gandhi University Library, 11-12 October 2006:

Library and Information Service Systems are the areas which have been highly influenced by Information and Communication Technology (ICT); that also with an unprecedented speed. The library scenario has influenced major developments in ICT also. Many of the important inventions and developments in ICT occurred originally to satisfy the needs of information management in libraries. There is no other field which needs to process such a huge number of records and huge quantity of content in varied formats as in libraries. ICT has to develop special hardware and software for high capacity storage and information retrieval in library contexts. The technology so developed helped ICT in easily developing solutions for back file archiving, data mining, knowledge ware housing and the like in e-governance applications.

Today without ICT familiarization no one can work effectively in libraries. Most of the live libraries have automated their housekeeping operations starting with the computerized catalogue. Many of them are also providing some documentation and reference services using computers and the Net. Any how the publication and distribution of books and journals, their acquisition and organization in libraries, and providing services using them are presently undergoing revolutionary changes. When we purchase a book or journal we have numerous choices. Printed version, digital version, downloadable version, annual subscription for access and cost for life long access are some of the choices available from reputed publishers. Specialized book collections in some subject areas are available for online access on subscription basis. The digital versions of books and reference sources also have; added advantages and content. Additional content, multimedia content, facility for interaction, facility for their use by more than one person at a time, provision for access from outside the library building, and in addition to all these the cost effectiveness. The digital version of encyclopedia Britannica will cost only Rs. 2500 with five times more content than its printed version costing Rs.75000. Our attitudes, our ways and our rules should change if we are to harness these possibilities offered by ICT.

ICT can also help the universities and other research institutions, for bibliographical control as well as ensuring accessibility of the published research work from the organization. Some such projects on this line have already been initiated in the mahatma Gandhi University also. Public Relations Office of the University has already started work on preparing a directory of research papers published by the teachers and students of the university. Library is also initiating a project for digitizing the PhD dissertations of the university and also for launching an Institutional Repository through its web site using Open Archives solutions. When these projects are completed information on all the research papers, conference presentations, dissertations and other popular articles published by those from inside the university; including their full text will be in the control of the university and will be accessible to any researcher from inside or outside the university within seconds.

GenISIS developed by UNESCO can be used for most of the activities mentioned above like providing various types of documentation services, developing collections of relevant topics within limitations of

IPR in digital form from subscribed online journals and books, launching Institutional Repositories, e-publishing etc. GenISIS can be used for various information management applications from that of an individual researcher to that of an organization like the university library. Now a researcher or Librarian not having sufficient knowledge to manage and use e-documents cannot work effectively. A personal e-document collection developed by the researcher during literature search/research is to be managed by him/her in a retrievable way. Collections of published papers resulting from in house research are to be organized with search, copying and retrieval/ dissemination facilities by Librarians. Institutional Repositories of such documents are also to be made available through web. Most Digital Library (DL) solutions available for the above functions from commercial groups are complex systems which require training to use and experts to configure. Their scaling up is also costly and limited.

A short training in ISIS group of software can provide to researchers and information service professionals; the required capacity for developing and managing e-Documents and Digital Libraries using WINISIS, making them accessible with search mechanisms over Intranet and Internet using GenISISWEB, and publishing them with search engine in CDROMs using GenISISCD. These are all simple and easy to use open source packages from UNESCO.

For launching digital libraries in the web or for launching institutional repositories in the web one should be able to use Appache Web Server software also. It is also open source software and one can get trained to use it in an hour or two. Knowledge to install WINISIS and define required databases is also essential to use GenISIS packages. GenISISCD can be used to produce distribute small document collections as CDROM publication with search and full text retrieval facility. GenISISWEB can be used to make the databases and full text collections accessible over Web.

To learn installing and using GenISIS one need only basic knowledge in using computers. Knowledge of ISIS will be an additional advantage. Minimum requirement for developing and managing a

small e-collection by a researcher or institute will be a computer with Windows 98/ME/2000. With this facility participant will be able to create a Digital Collection Management System of e- Documents and other publications resulting from in-house research of their institution or papers collected from other sources like Internet for use of the academic community.

UNESCO which has developed the WINISIS and GenISIS packages works to create an enabling environment, which is conducive to and facilitates universal access to information and knowledge. UNESCO also helps developing effective "infostructures", including developing information standards and management tools, strengthening libraries and archives key actors in knowledge societies, and fostering access at the community level. As part of this UNESCO has developed the software package for database management CDS/ISIS. It is a generalised Information Storage and Retrieval system. The Windows version WINISIS may run on a single computer or in a local area network. The JavaISIS client/server components allow remote database management over the Internet and are available for Windows and Linux. UNESCO's GenISIS allows the user to produce HTML Web forms for CDS/ISIS database searching.

GENISIS the open source software can be used to organize word, pdf, audio, image, video, animation and many other files/information into a functional system with efficient retrieval facility. GenISIS can be used to manage data in different formats and quantum according to contexts. From the files collected by a researcher which is to be organized in his personal system to that of unlimited number of files to be organized in storage system of the library GenISIS can act as an apt solution. It can be used to digitally archive a video collection, audio collection, image collection or a collection containing a mixture of all these formats.

UNESCO's packages will be a blessing to lakhs and lakhs of village libraries existing in India which can not afford costly information management solutions. Every village has very rare and otherwise not available heritage items like the diaries and collections of great men

who lived there, photographs of the ancient structures that exist or exited there, as well as history, folk songs etc remaining only in the memories of people living there. With a simple computer and the free software offered by UNESCO village libraries can build of local digital archives of heritage items which includes, text, images, video and audio which can be later pooled up by national level agencies of government.

This is the first workshop on UNESCO's GENISIS conducted in India. We have with us one of the best resource persons on this aspect available in the world, Sri. K. Rajasekharan who has launched an institutional repository using GenISIS as well as published in CDROM for Kerala Institute of Local Administration (KILA) various collections related to Local Government and participatory development. The response we received for this programme is also overwhelming. Mahatma Gandhi University, Kottayam has plans to conduct an advanced level workshop on GenISIS within a short while. Hope the participants who have come from different spheres of activity for this programme will be benefited from the workshop and will be using the package for effective information management in their field of activity. MG University Library and KILA Library will be providing necessary advice and guidance to all the participant who will be using this package for academic or heritage conservation activities

References

Rajasekharan, K and Nafala, K M. Creation of CD ROM Library using WINISIS and GenISISCD. Thrissur, KILA, 2005.

Raman Nair, R. Basics of CDS/ISIS for DOS. New Delhi, Ess Ess, 1999.

Talagala, Deepali. Web Interface for CDS/ISIS: GenISISweb. Colombo, Sri Lanka Library Association, 2003.

Dr. R. Raman Nair is presently University Librarian of Mahatma Gandhi University. Kottayam 686 560, India. E-mail ramannair.r@gmail.com