

International Conference on Digital Libraries (ICDL 2010)

Shaping the Information Paradigm

23–26 February 2010 • New Delhi

<http://teriin.org/events/icdl/>

ICDL 2010 concludes with grand success

The valedictory session started with a presentation of conference report by Rajesh K Bhardwaj, Librarian, TERI.

The Third International Conference on Digital Libraries ‘Shaping the Information Paradigm’ hosted by TERI and IGNOU reached its conclusion, very successfully.

The conference received an overwhelming response, attended by nearly 655 delegates from 35 countries. The conference had 9 tutorial sessions, 3 keynote addresses (by Dr P Ananda, Managing Director, Microsoft Research India; Dr R Chidambaram, Principal Scientific Adviser, and Dr Jens Thorhauge, Director General, Danish Agency for Libraries and Media, Denmark), 3 round-table discussions, 40 invited talks, 31 technical sessions, 168 contributed papers and poster presentations, 2 panel discussions, 2 cultural programmes, a daily conference bulletin and exhibition, and product presentation. The conference witnessed discussions on a plethora of themes and topics by eminent experts sourced together from across the globe.

The Conference was inaugurated by Shri Kapil Sibal, Hon’ble Minister for Human

Resource Development in a glittering function in the presence of Ms Purandeswari Devi the MoS, HRD, Dr R K Pachauri, Director-General, TERI and Prof. V N Rajasekharan Pillai, Vice Chancellor, IGNOU.







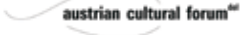







The conference inauguration was preceded by a day-long tutorial session held at IGNOU which

was inaugurated by Dr T Ramasawy, Secretary, DST in the presence of Prof. V N Rajasekharan Pillai, Vice Chancellor, IGNOU.

The tutorials spread over nine sessions were attended by nearly 200 delegates both from academia and industry. The sessions were conducted by renowned experts on a wide range of topics like



OUR VALUABLE SPONSORS

| | | | | | | | | | | | | | |
|---|--|--|--|--|--|---|--|---|--|--|--|--|--|
| Organizer  The Energy and Resources Institute | | Co-organizer  Indira Gandhi National Open University | | Associates  Ministry of Culture, Government of India | |  Commonwealth Educational Media Centre for Asia | |  Council of Scientific and Industrial Research | |  Special Libraries Association | | | |
| Co-associates | | | | | | Platinum sponsor | | Gold sponsor | | | | | |
|  American Center | |  Austrian Cultural Forum | |  The British Council | |  Goethe Institut – Max Mueller Bhawan | |  The Netherlands Embassy | |  Emerald Group Publishing | |  Global Information Systems Technology Pvt Ltd | |
| Silver sponsors | | | | Bronze sponsor | | | | OTHER SPONSORS Department of Information Technology, Ministry of Communications and Information Technology, Government of India • Defence Research and Development Organization • Indian National Science Academy • Raja Rammohan Roy Library Foundation | | | | | |
|  Nature Publishing Group | |  Tausco Subscription Agency Pvt. Ltd | |  Taylor & Francis Group | |  Google | | | | | | | |



Digital Preservation, Open Source Software , Open Distributed Technology Enhanced Learning, Semantic web and data mining.

It was followed by three-day technical sessions which opened with a plenary talk in the morning delivered by speakers from prestigious organizations like Microsoft, Danish Agency for Library and Media, Denmark and Principal Scientific Advisor to Government of India.

The conference witnessed presentations of nearly 210 contributed papers selected out of total 410 submission by delegates from several countries of world covering a wide range of issues and topics like digital rights management, Knowledge Management, Digital Library Services, virtual support to distant learners, e-learning and m-learning and Open Archive initiatives. The papers covered not only theoretical formulations but also practical aspects and several important case studies involving countries such as Pakistan, Bangladesh, Nepal, Sri Lanka, China, UK, USA, Nigeria, Finland, Denmark, Malaysia, Spain, Germany to name some. Consisting of a very lively and thought provoking deliberations, ICDL 2010 also had two power packed discussions on issues of high importance.

Both to encourage and recognize the individual contributions, ICDL 2010 awarded 3 best papers under Indian, Asian and International categories. Awards were also given to best 3 poster presentations.

To carry forward the outcome of conference deliberations and convert some of the ideas into action, ICDL 2010 had set up a committee to prepare recommendations for presenting to Ministry of Culture and other relevant government bodies.

The conference ended with a valedictory session addressed by Mr Jawahar Sircar, Secretary, Department of Culture, Government of India.

Experts lay threats to copyright regulations

The breakfast sessions of ICDL 2010 anchored by Mr Shantanu Ganguly during last three days reached its conclusion with by Prof. Michael Fraser in chair and discussing issues related to copyright and its management to protect cultural objects in digital environment. He highlighted the importance of equal responsibility of the creator as well as custodians to protect the cultural products through IPR.

Prof. Michael Seadle gave suggestions to use Digital Rights Management Software to tackle this issue. Universities and institutions have to transform their scholarly communication management to an open access environment.

Dr Denise Troll Covey delved into copyright and its implications on public goods such as

journal articles and migration of journal to open access and hybrid environment.

Prof. Srikrishna Deva Rao elaborated upon the cyberspace regulations and their role in use and misuse of copyright.

Prof. Murali M Rao highlighted the fact that security part in digital object is entirely different from physical object. He explained various tools and techniques which can be used for the security purpose within the context of copyright management in digital environment.

'Every Internet user is a potential library user'

Chaired by Jens Thorhauge, the plenary session had Dr R Chidambaram as keynote speaker on 'Digital Libraries, e-learning and National Knowledge Network'. He explained the importance of libraries saying that 'Until the dawn of information, for citizens, library was source of information. Today every internet user is a potential library user'. He emphasized that no library should be digitized but it should be hybrid library. He discussed about the knowledge supply chain – until information is transmitted into learning it cannot become knowledge. Although excessive knowledge at times become destructive, while stating this he visualized a common threat to today's youth of having too much of peripheral knowledge generating from the net. According to him, it could kill creativity in research personnel. He mentioned that only creating a digital library would not solve any purpose until a proper infrastructure is provided to access and retrieve the information. In this context he made audience aware about government's initiatives of developing a National Knowledge Network. Under this project a multi-gigabytes per second should be available with all the higher learning institutes. NKN will bring together all stakeholders in science and technology and higher education. NKN has plan to provide remote and interactive classrooms studies. He also gave the reference of altruistic collaboration where world digital library, UNESCO and 30 countries would be working together with the goal to narrow the gap of digital divide between the countries. ALSOS digital library for nuclear sciences, where

web based collection of annotated references to resources traces the development of nuclear science. He ended his lecture by mentioning various initiatives taken by Government of India mainly Digital Library of India which was brain child of N Balakrishnan, Raj Reddy and other eminent scientists, BARC, Lakshya and INIS database.

Dr Rajshekaran Pillai concluded the session with emphasis on creating libraries for remote users. He concluded the session by giving utmost importance to NKN projects.

Technical sessions conclude with a promising note

The first technical session of the last day of the conference chaired by Prof. Peter Schirmbacher on 'Information storage and retrieval for global access' set the ball rolling.

Prof Gill Needham, the first invited speaker spoke on 'The changing role of information professional in the age of Google'. She while introducing her associate institute 'The Open University of UK' being the largest university has eight thousand faculty and 500 courses. She explained the threats to library professional that how Google is taking over librarians work. The librarians have to work towards increasing visibility, building trust and confidence among users and should demonstrate value for money. Then only they can save the profession becoming obsolete. The second invited talk was on 'There is no data like metadata' by Dr Franciska M G de Jong. She discussed about metadata at length. The concluding lecture was on 'Increasing access to agricultural publications using digital archives and the semantic web' by Dr Valrie Davis. The University of Florida is a hub for the distribution of the agricultural information and provides access to print and other formats. Institutional repositories and semantic web are designed to facilitate the discovery of resource building and human expertise. She also explained VIVO platform and mentioned that there is critical need to fully integrate the robust functionality of the semantic web with the rich content of institutional repositories.





Dr Andreas Rauber chaired the session on 'Digital library assurance and multimedia'

The first set of invited speakers were Rukmini Vemraju and Sucheta Phadke, they gave lecture on 'Quality assurance for multimedia learning materials'. She defined quality assessment, different stages and structure of the project QAMLM. She also threw light on the guidelines of the QAMLM. The second invited speaker was Anne Caputo. In her lecture on 'Five global trends affecting digital libraries and librarians' gave at length description of globalization, distressed markets, disintermediation, disruptive technology/innovation and competition. The Contributing lecture was on 'Marketing e-resources: National Library Board Singapore by Narinder Kaur. She explained the market strategy adopted by the National Library Board, Singapore in order to increase awareness and usage of its e-resources available through its website.

Technical session on Semantic Web and was chaired by Prof. K R Srivathsan, Pro-VC, IGNOU, India. It opened with an inspiring lecture by Invited Speaker, Prof. Stefan Gradman on 'Knowledge = Information in Context: on the importance of semantic contextualisation in Europeana'. In his presentation he showcased Europeana model which endeavours to bring together millions of representations of cultural artefacts form all kinds of European cultural heritage institutions. He said that one of the main characteristics of Europeana is to enable generation of knowledge pertaining to culture. It was followed by a contributed paper by Dr M Natarajan on 'Application of Semantic Web Technology to Digital Library'. His paper presented an overview about the semantic web, its importance and technologies which can be used to enhance the digital libraries. Mr Surjeet Mishra spoke on 'Ontology-based Effective Visualization and Navigation in an Online Digital Library'. He attempted to study an approach to visualize and navigate in the document collection of a digital library using ontology. Mr Shri Ram Pandey's presentation was on 'Semantic Web and Ontology'. He discussed the problems of existing web and possible solutions and also explained the possible roles that library and information professionals can play in semantic web development. Next presentation was by Ms

Pinky on 'Semantic Web Technologies for Digital Libraries'. She discussed about semantic web and how semantic web technology can enhance information retrieval in web and in digital libraries. It also discussed the present and desired status about use of metadata for effective retrieval of digital information. Last paper of the session was by Mr Abhijit Gupta on 'A Semantic Approach Towards the Knowledge Management of the Isolates/Facets of Oncology (Cancer Biology): a case study on Aden carcinoma and Sarcoma'. He discussed his efforts which have been made to analyse the facets of cancer biology in terms of its ontological and semantic relationships for effective knowledge representation and its effective retrieval.

Session on Open Archives Initiatives started with the brief on the theme by the chairman Dr V N Shukla, Director, CDAC, Noida. He identified archive as the major component of the digital library which can be used to store lesser demanded information objects but can be produced and accessed within instant of its demand.

Dr Jean Marc presented his case study on digital preservation of e-documents at Swiss Federal Archive (SFA). This included the strategic decision taken by Swiss Government in the context of record management and the future of

digital preservation. The speaker noted that for centuries we know the art of printed document preservation but now the time is ripe to practice and standardize digital archiving process. He informed the house about Swiss Government resolve to have all documents in e-form by 2012. He pointed out that documents archived today will become unusable in near future due to its operability problem in the changed application and system environment. He identified the various steps involved in digital preservation such as decomposition of digital document and reduction in multiplicity of format along with decoupling of data from external operating environment. SFA specifies a data format for different kinds of content and does risk analysis for existing e-documents. He discussed about Base-OAIS Reference model for digital preservation using SIARD suite 1.0 an OSS.

Dr Sugimoto Shigeo from Japan presented his paper on 'Viewing Digital Information Resources Architectures from a Metadata point of view – a case study on Metadata for Manga. He described his efforts of developing metadata for Manga that is Japanese comic novels. He elaborated in detail the component structures of newly developed metadata for delivery of comic animated novels on the mobile devices in Japan.

Dr Purushottam Gowda described about open archives initiative and protocol for metadata harvesting. He compared its features with Z39.50 protocol and pleaded for more research in this area.

Ms Heather Brown, Assistant Director, ArtLab, Australia, spoke on 'Interconnected web'. She described the web as a cosmos which needs to be explored. Ms Brown expressed that digital preservation techniques are still in experimentation stage. She identified the various issues of digital preservation such as selection of materials, technology, standards, and disaster preparedness. She noted that web has a role in preservation as well and advocated that ideological approach is same in print and digital world that is 'Longevity-choice-



quality-access'. At the end she stressed that India being rich in heritage should maximize and take lead in digital preservation initiative.

Dr V N Shukla concluded by saying that Archiving is a live issue before Indian Digital Repository developers and mentioned about archiving approach of Digital Library of India.

Technical Session DL case Studies was chaired by Dr M Koteswara Rao, Librarian, University of Hyderabad. It opened with a highly informative lecture by Invited Speaker, Dr Jagdish Arora on 'Indian Library and Information Infrastructure for Scholarly Content (N-LIST): Extending Access to E-Resources to Colleges in India'. He discussed about the proposed information infrastructure for scholarly contents, i.e., N-LIST project, which will cater to 6000 colleges of India. He attempted to point out the potential benefits of this new electronic content supply network to various stake holders. Second invited paper was by Prof. Ming Zhang, on 'Research and Construction of China Digital Library'. She reviewed research and development of digital libraries in China in the past ten years and analysed the construction and operation of digital libraries. First contributed paper of the technical session was presented by Ms Geeta Khulbe on 'Planning and Development for Digital Library: Experience from Institute of Economic Growth'. Her presentation dealt with the digital library initiatives at the Institute of Economic Growth (IEG). Last paper of the session was by Dr Rubina Bhati on 'Use of HED Digital Library by Faculty Members of Teaching and Research: Case Study of Islamia University, Pakistan. She analysed the usage pattern of HED digital library and suggested further steps to learn and share the knowledge for a competitive edge in the future.

Session on Web Based Methodologies, Chaired by Dr B K Sen began with his introductory remark about volatility of subject in today's contents.

Dr Andras Micsik presented his paper on different models of emerging collaboration functions in library 2.0. He described the key components of library 2.0 and the collaborative approach in its design process and delivery. He explained about digital library reference model with sub function of collaboration.

Mr Ajay Kumar Pandey from DRDO Pune, presented his case study on the application of WordPress an open source software for the development of blog named Armament Resource Shelf for his organization which collects latest information from websites and portals related with the subject of Armament.

Ms Anju Midha (TCS) spoke on the benefits of library 2.0 and its application to corporate environment. The other speakers spoke on the implementation of virtual class room platforms and log analysis of web resources in the present context of web based methodologies for various delivery services.

Panelists articulate DL policy issues comprehensively

The, Panel discussion on the theme DL Policy and Standards, chaired by Prof. Parvin Sinclair (PVC,

IGNOU) started with a comment on insufficient and non consistent policies and standards in libraries. She introduced the panelists, Jens Thorhauge (Director General, Danish Agency for Libraries and Media, Denmark), Michael Seadle (Director, Berlin School of LIS, Germany), Kalpana Das Gupta (Former Director, Central Secretariat Library) and Prof. Manohar Lal (Director, School of Computer and Information Science, IGNOU).

Jens started the discussion with 'how to digitize materials and make it available and accessible to users in a best way'. He had given five recommendations regarding digitization policy, namely:

- Digitize the old materials in cooperation with the other institutions(i.e., co- ordinate as much as possible, for example, one digitization centre at national level)
- Joint working groups aiming at de-facto standards
- Work with new business model in the licensing area (for example, flat rates)
- Try joint ventures with publishers
- Offer digitization on demand of the users

Seadle talked about copyright policies for digitization and the need of standards of digital preservation of materials. He further added that the policies and standards we are developing should be implementable.

Kalpana Das Gupta started her discussion with a mention on the lack of holistic approach and coordinating body regarding the digitization of materials at the national level. India being multicultural and multilingual nation requires different policies and standards catering to different materials, needs and cultural heritage of the country. She emphasized the importance of coordination between different institutions and ministries and structure for private-public partnership (PPP) for developing DL according to the needs of the people.

Prof. Manohar Lal started with the historic evolution of digitization way back to the era 600 BC, the time Panini, whom, he described as the first digital librarian. He further emphasized on the impact of digitization on society with various examples, and warned to be cautious while moving ahead with it.

Exhibition lucky draw – announces the winners



Winners of Best Poster and Paper Award

Poster

Rosy Jan and Nadim Akhtar Khan
Harvesting Capability of Google Scholar: A Comparative Study of three Major Journal Lists-DOAJ, Highwire and Biomedcentral.

Rohit Chawla, Saman Matloob and Priyanka Chawla
Agent-Based Web Intelligent Tutoring System.

K R Chaudhary, Suresh Paliwal and Yogita Ahuja
Digital Library: Need, Merits and Issues.

Paper

INDIA
Surjeet Mishra and Hiranmay Ghosh
Ontology-based Visualization and Navigation in an Online Digital Library

ASIA
Abrizah Abdullah
Piloting an Institutional Repository at a Research-Intensive University: strategies for content recruitment and the role of the library

INTERNATIONAL
Eld Zierau and Ulla Bøgdad Kejser
Cross Institutional Cooperation on a Shared Bit Repository

The Awards were sponsored by Balani Infotech Pvt. Ltd.



ICDL 2010 – Shaping the Information Paradigm

Recommendations

Vision Statement

The Conference recognizes that digital libraries are of vital importance and play significant role in lifelong learning, social inclusion, social networking, and societal development as well as in the overall development of all sectors of national economy and in leading the country to a knowledge-based society. The digital libraries are evolving with Web towards a universal knowledge base. Given this context it is important and relevant that digital library community should endeavor to aim at realizing the following vision

Web based information services for seamless access to multilingual, multicultural content in all forms and types of publications without language, geographical, geo-physical, or spatial barriers for deriving following benefits

- Reaching the un-reached to supplement formal education system
- Digital library - an awareness tool for empowerment of the common man
- Driving force for education, culture, research and information
- Capturing and preserving the cultural heritage of the locality, region, and the nation
- Democratization of information
- Sustainability of access to information and its preservation for posterity
- Global access to local resources and local access to global resources online
- Serve as a single window to peep into the repositories of world knowledge globally

Digital Library – Issues of Concern

Under-developed Status of Digital Libraries

-The Conference recognizes that the development of institution based and community based digital libraries has been sporadic and confined mainly to textual content. Digital libraries have yet to evolve on the Web offering content in other forms such as video, audio, images, motion pictures etc. Given the role and importance of such multimedia objects in e-learning and other learning environments, a lot needs to be done to improve and reposition digital libraries and in overall shape the information paradigm

Google is not a Substitute to Digital Library – The Conference recognizes that Google offers valuable content and that it can hardly replace or undermine the importance of institution based or community based digital libraries. The digital libraries is the only tool that holds the potential to offer heterogeneous access to digital content available under open license, creative commons, and under rights management for free compared to Google's business model that seeks to offer content for profit.

Emerging Digital Library Focus – The Conference recognizes that digital libraries should emerge as service oriented centres and not solely as resource oriented centres and be valued more for their impact in building user trust.

Digital Content Preservation – The conference recognizes the need for harnessing digital library technologies for preserving cultural heritage of the locality, region, and nation and making such unique content available on the Web for global access. The conference also underlines the need for preserving digital content as such and addressing in this context all economic and

technological issues of concern as well as evolving long term strategies for long term sustainability of digital content.

Barriers to Digital Library Development

The Conference recognizes that world over several initiatives have been undertaken in the past to promote and advance global access to information. However barriers such as copyright issues, economic issues, infrastructure issues, bandwidth issues, content development issues, standards issues, and issues of skill development continue to hamper progress in this regard.

The Conference recognizes once again as it did earlier in ICDL 2006 that some information decays rapidly in digital age and as such some published material lose their commercial value long before the expiry of mandated copyright period under the Law.

Redefining Library Roles in the Digital

Library Context – The Conference recognizes that the transition to digital library era has opened up new opportunities before the profession to redefine the roles and functions of libraries and librarians

Factors to Promote Global Access to

Information – The Conference recognizes that factors to promote global access to information are open access, open access initiatives, content creation under open and business models, content standards, digital library packages, capacity and capability building, infrastructure, information literacy, and above all the state policy support.

Recommendations

Having regard to issues and constraints in spearheading digital library movement for lifelong learning and having regard to strengths and potential of digital libraries and their role in shaping the information paradigm for building a true information society, the Conference recommends the following

- Reemphasizes the need for enacting Digital Library Act as already recommended in ICDL 2006
- Reemphasizes the need to evolve National Digital Library Policy as already recommended in ICDL 2006
- Capacity and capability building through public and private sector partnership
- Harness digital library technologies for e-learning and open and distance learning

Digital Library Act

- Organize global access to information under creative commons license
- Differential reduction in copyright period for all kinds of publications
- Publications emerging under publicly funded research projects should be available for open access
- Build in clear and extensive provisions for fair use of copyrighted material
- Develop new models for state funded compensation to authors or publishers to release their content on the Web for free access
- Compulsory deposit of digital copy of new publications in addition to printed copy

National Digital Library Policy

- Set up apex body to provide leadership in digital library development
- Set up inter-ministerial body as a coordinating

mechanism to address all issues of common concerns to different ministries

- Use open access, open source software, open standards for content creation and access
- Connect with national and international initiatives and programmes for global cooperation, collaboration, international visibility and to leverage cost benefits
- Prepare for long-term preservation and sustainability of digital content for their continuous use
- Bring all government publications in public domain for open access through the mechanism of institutional repositories
- Infrastructure at user end for accessibility to digital library resources and services for supporting formal and non-formal education systems

Capacity and Capability Building

- Public and private partnership for capacity and capability building in digital library skills, technologies, education, and information service and their marketing
- Introduce specialization in digital library studies for teaching in universities
- New models of teaching such as e-learning, virtual classrooms, virtual reality may be exploited
- Bring together experts in library and information science, computer science, management education to meet and address interdisciplinary needs and issues
- Harness potential of institution-based and community based digital libraries in information literacy

Digital Technologies for E-learning and Open and Distance learning

- Establish and strengthen technologically enabled E-learning and distance learning programmes for content creation, content delivery, content quality comprehensiveness, competitiveness, and credibility
- Evolve new programmes such as e-resources consortia for the benefit of all stakeholders in open and distance learning so that they could also get access to such digital content as is available mainly under rights management
- Evolve mechanism for linking of e-learning programmes with digital libraries across the country
- Strengthen ICT infrastructure with high bandwidth and computing facilities, if necessary National knowledge Network may be utilised for the purpose
- Create portals for networking of open and distance education libraries in the country for pooling and sharing of their scattered resources
- Evolve and catalyze digital learning movement at school and community level as well as for children's libraries and interactive local cultural centres.

Note: Send your suggestions by 20th March 2010 to <icdl@teri.res.in>

Snapshots of cultural programme

