International Conference on Digital Libraries (ICDL 2010)

Shaping the Information Paradigm

23–26 February 2010 • New Delhi

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A power-packed encore for brand ICDL

Welcome address by **Dr R K Pachauri**, Director-General, TERI, New Delhi; *Address by* **Ms Deanna Marcum**, Associate Librarian for Library Services, Library of Congress and President, Council on Library and Information Resources, Library of Congress, USA; *Address by* **Prof V N Rajasekharan Pillai**, Vice Chancellor, IGNOU, New Delhi; *Address by* **Smt D Purandeswari** *(Guest of Honour)*, Hon'ble Minister of State for Human Resource Development, Government of India; *Inaugural address by* **Shri Kapil Sibal** *(Chief Guest)*, Hon'ble Minister for Human Resource Development, Government of India *Vote of thanks by* **Dr Debal C Kar**, Fellow, TERI, New Delhi

HRD Minister Shri Kapil Sibal leads the inaugural ceremony

The Third International Conference on Digital Libraries (ICDL) 2010 jointly hosted by TERI in partnership with IGNOU was inaugurated by Hon'ble Minister for Human Resource Development, Shri Kapil Sibal. Attended by nearly one thousand delegates, library professionals, educationists media persons and other eminent guests, the four-day event made a promising beginning.

In his welcome note Dr R K Pachauri, Director General TERI stated that rapid pace of development of ICT and the manner in which information and knowledge will be disseminated using these technologies will play a major role in the evolution of society in the present century. Dr Deana Marcum from Library of Congress, USA, gave a perspective on digital library and referred to emerging tools like RSS feed, Wikis and role of blogs in library services. Prof. Rajasekharan Pillai, Vice Chancellor, IGNOU, stated that ICT provides us with vital, dynamic and functional needs to reach out to a large mass of student population with diverse interests. Prof. Balakrishnan emphasized the need for relooking at copyright laws in new information environment and enacting laws to regulate digital objects. Smt. Purandeswari, Minister of State, HRD, emphasized that libraries should be transformed into digital libraries at the earliest. Mr Kabil Sibal reiterated that judicious selection of information resources for digitization, traditional library tools versus digital library tools, socialization of libraries, development of hybrid libraries and upgradation of librarians skills are necessary.

The inaugural session ended with vote of thanks by Dr Debal Kar, the Organizing Secretary to the Conference.

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Delegates throng the IGNOU Campus

All-important pre-conference session takes off in style

The pre-conference session to ICDL 2010 – tutorials on diverse themes – was conducted by eminent experts at the Indira Gandhi National Open University.

The pre conference session took off with the introductory lecture by the Vice Chancellor of IGNOU, Prof. Rajasekharan Pillai . He thanked TERI for collaborating with IGNOU for this third International Conference on Digital Libraries which coincides with the University's silver jubilee celebrations. Prof. Pillai highlighted IGNOU as one of the largest open universities using ICT to outreach the 2.8 million students. Wishing the conference a success, he welcomed all dignitaries, delegates, IGNOU authorities and media persons. Ms Anne Caputo, President, Special Libraries Association (SLA), the Guest of Honour, quoted India as the fortunate land greeted by the Sun. The Chief Guest, Dr T Ramasami, Secretary, Department of Science and Technology, Government of India stated that knowledge existed well before the invention of writing and paper. The transfer of knowledge took place orally. He further impressed transition from analog to digital form enhances its outreach.

Dr Vibha Dhawan, Executive Director, TERI mentioned changes in information retrieval practices in the 21st century Knowledge Society, where there is enormous growth of knowledge. Library professionals have a challenge to deliver latest knowledge to all segments of society. She touched upon the issue of ensuring the internalization of information as students are reluctant to read and understand. The session closed with the vote of thanks given by the University Librarian, Mr Sudhir Arora.

◼ Tutorials: Experts Reach out to the Delegates… online ◼

TUTORIAL 1

Digital Preservation, with a focus on Preservation Planning, Compliance to international certification initiatives and standards

Andreas Rauber and Christoph Becker
Vienna University of Technology, Austria

Dr Rauber began with explaining why digital preservation is needed and stating that it is on the agenda of UNESCO to have a strategy for the same. The lecture in tutorial session on Digital Preservation: Challenges, Solutions and Approaches to Accountable Planning of Digital Preservation by Prof. Andreas Rauber and Christoph Becker started with an introduction of activities of Digital Planning activities at Vienna University of Technology. Prof. Rauber highlighted the various activities like Web Archiving, DELOS DPC, PLANETS, eGovernment and Digital Preservation Series

of Projects with Federal Chancellery. Initially, he also briefed about what the participants will know at the end of this tutorial. As per his assumption the participants will understand the challenges in digital preservation and address them on both layers physical as well logical with other aspects of his presentation. As the session proceeded he addressed the issue of need of digital preservation. More specifically, he categorized that digital Objects require specific environment to be specific, Software and Hardware environment is not stable and Digital Preservation aims at maintaining digital objects authentically usable and accessible for long time period. Further, he elaborated the need with suitable examples from Office Documents, accounting emails, scientific datesheets, etc., in addition to the mentioned earlier some application domains having cultural heritage data, eGovernement, public administration, and science/ research etc.

While planning for digital preservation a strong strategy is needed some of the points in planning strategy which are to be kept in mind are Investment Strategy, Short-term approaches, medium term approaches, alternative approaches etc. As a solution migration is one of the approaches because data is required to transformation into different formats, It is widely adopted, it is possible to compare to un-migrated object, and immediately accessible but the process of migration is continuous activity. Emulation is the second strategy for digital preservation. ◼

TUTORIAL 2

OSS for Libraries on LiveCD
A R D Prasad
Documentation Research and Training Centre (DRTC), Bangalore, India

The tutorial was devoted to the OSS operating system and application software compiled as a one stop solution for libraries. Dr Prasad has compiled a bootable CD named Live CD which has all the components ranging from primitive library management systems to digital library software to federated search software to electronic resource management. He described the various components of the CD, viz., D Space, KOHA, Harvester, Dbwiz and Squirrel Mail server. The enthralled audience asked a number of questions showing doubts and inquisitiveness. The session ended with a demonstration of the installation cum demonstration of the CD with everyone getting a copy of the same. ◼

TUTORIAL 3

Meeting the challenge of users on the move
Gill Needham
Information Management & Innovation, The Open University Library, UK

Ms Gill Needham in her tutorial, Meeting the Challenge of Users on the Move highlighted the use of mobile phones for providing library

services to its clientele presented the case study of UK Open University. With 200 000 enrolment, the Open University in the UK has a particular interest in the use of technology to enhance the flexibility of the learning experience and to make it more accessible. Students are able to access the e-resources through library website. The university library also provides helpdesk service and information literacy (using SAFARI: Skills in Accessing Finding and Reviewing Information). She also informed the house that the library also conducts continuing professional development programme for the library professionals. The flexible and easy accessibility, affordability and popularity along with quick and effective Wi-Fi services make mobile phones an incredible media to impart the library services to its distance learners. The library designed mobile friendly website interface and implemented Athabasca University auto detect and reformat software. To know what students want through mobile phones, the university conducted a survey of students at Cambridge University and the Open University and came through various recommendations which may help the library for providing services more efficient and effective by using SMS, Mobile OPAC Interface, Library Audio tour, mobile access to National Database of libraries, Ask A Librarian service and adapting Athabasca's Digital Reading Room Model. She also discussed about the technical challenges for providing library services through mobile phones. While accessing library services through mobile phones, users may have to scroll down too much to see more contents, larger images may not fit on screen and may take too much time to get downloaded and flash may not be supported. During the lecture number of participants raised the questions regarding the internal assessment, updation of the website and the cost of application. Dr Seema Chandhok from IGNOU informed the house that IGNOU is on its way to provide the library services through mobile phones. ■

Tutorial 4

Open distributed technology enhance learning

K R Srivathsan
Indira Gandhi National Open University, India

Prof. K R Srivathsan, PVC, IGNOU in his tutorial, Open Distributed Technology Enhance learning (ODTEL): towards the next generation system of open education from IGNOU conveyed that IGNOU belongs to everyone in India and it formalize the open education system in the world. He emphasized the importance of learning and learner centric education system. He discussed Learning Management System which used open source systems like Moodle, A-Tutor, etc. proprietary ones like Blackboard,

Acado, etc. However, these LMS are closed to promote open education communities therefore he suggested the need for a unified e-learning framework which uses a blend of delivery modes which enhance effective engagement of learners through systems supported by discussion forums, e-mail, mobile- alert system, online self test and access to supplementary web-accessed contents and assignments. He introduced IGNOU's ODTEL framework which is approved as next generation framework by IGNOU's Academic Council. ODTEL is an open framework for quality education and its integral components are quality instruction by teachers, quality resources, quality ambience processes and quality efforts by students and peer to peer interaction is an important factor in this. It integrates multiple modes of reaching out through ICT; Internet, TV, IP-TV, Community radio, mobile alert, education kiosks in railway stations and rural areas. IGNOU Open Course Guide (IOCG) is the key integrator of ODTEL framework. He stressed that good e-Learning should align with pedagogy, it should add to the tacit capabilities of the student, promoting self effort, collaboration and web resources enrichment as integral part of it, and at the same time he suggested the judicious use of technology. ODTEL provides unified framework for conventional, open and blended modes of education. ■

Tutorial 5

Digital preservation, with a focus on preservation planning, compliance to international certification initiatives and standards

Andreas Rauber and Christoph Becker
Vienna University of Technology, Austria

Post-lunch session, was conducted by Christoph Becker on Digital Preservation Planning with Plato. He initiated the talk on preservation planning workflow structure. He further stated that defining requirements, evaluating

alternatives, analysing results, recommendation of digital preservation plan, building digital preservation plan and finally execution of preservation plan are six stages of preservation planning workflow. He then said that Plato is an open source, free and publicly available tool for implementing these six steps of preservation planning workflow. He then elaborated the use of this tool with the help of a case study of developing preservation plan for a collection of scanned images of Danish Cars taken out of Yearbooks. He then gave a practical demo of developing this preservation plan on Plato. He also mentioned similar kind of 3 case studies of British Library, Bavarian State Library and University Library, Denmark. His demo was followed by some pertinent questions like for how long Plato is functional and how many users have logged in till date. Mr Becker said that Plato has become online since 2008 and around 470 have logged in till date across continents with majority of them from Europe. The session was wrapped up by Mr Andreas Rauber by quickly revising all that has been learnt and thanking the audience for their interactive participation. ■

Tutorial 6

Semantic Web and its applications to web based information access

Hiranmay Ghosh
Tata Consultancy Services, India

The tutorial titled Semantic Web and its application to Web based Information Access by Dr Hiranmay Ghosh from Tata Consultancy Services, was presented in a jam packed committee room. Dr Gosh divided his tutorial content into two parts. Part 1 titled 'Foundation of Semantic Web' and Part 2 'Semantic Web Information Access'. Semantic web is needed because man is rationale and has intuition but the machines are not able to perform the task of filtering the relevant information on the basis of the relational intuition and intelligence. HTML as a tool for creating the web pages, has limited possibility of 'Semantics of the Content' and the content is not easily accessible, because the computers do not interpret it. The solution to this problem is 'to analyse the page lay out' and relate to semantics to syntax called 'Page Scrapping'. Pointing out

to this particular solution he also highlighted some of the disadvantages like 'a separate rule for every page'. Another Solution suggested by Dr Ghosh is XML tags for web page creation and Xquery language for searching. XML Schema is a specified structure of the document but as a disadvantage XML does not care for the meaning of the tags. Thus both the above mentioned solutions have their limitations as well. In the interactive session answering the question "Is XML a mesh for programmers?" Dr Ghosh answered that it is not because another Solution known as Resource Description Framework (RDF), may be used for Semantic Web. Further, as the session progressed, Dr Ghosh discussed the concept of Ontology of Web.

In the second part of the tutorial Dr Ghosh described that knowledge was not formally encoded as ontology and that ontology of Web may be used as information access. The other conceptual tools like Wordnet – linguistic resource, wikipedia, DBpedia and Swoogle search engine for searching Ontology are the available solutions for information access in the Semantic web. The Session ended with great applause to Dr Ghosh for his simple and clear terminology with illustrations. ∎

TUTORIAL 7

Online publishing using XML and TEI
Alejandro Bia
Universidad Miguel Hernández, Spain

Prof. Alejandro Bia presented a very interesting tutorial on Online publishing using XML and TEI. It was very well received, the curious audience raised number of practical questions. ∎

TUTORIAL 8

GenNext Learning Systems: A Tutorial
Jyotsna Dikshit and Sujata Santosh
NCIDE, IGNOU, India

Dr Jyotsna Dikshit and Dr Sujata Santosh, NCIDE, IGNOU gave a tutorial on GenNext Learning System. Dr Sujata talked about the definition of e learning, its elements and their components. She discussed about the virtual learning environment and gave overview of

the latest learning environment and GenNext learning system, i.e., 6D learning environment and quanta learning environment, which is the next future. Further, in her lecture she described about the personal learning environment which is Web 2.0 enabled. She elaborated about the immersive learning environment, how to create one. She described about the transition from Web 1.0 to Web 4.0.

Further, Dr Jyostna described about the basic principles of pedagogy, 6 levels of learning for core development and creation of instructional media by e-learning and different types of authoring tools like Flash, Macromedia, Director, Author ware, etc. She also elaborated about different models for generating e-content and delivering it using ICT like outsourcing, Collaboration; capacity building for in house production and development and convergence of all 3 models.

They gave a detailed practical demonstration of an offline, i.e., CourseLab and an online, i.e., Ugutu. Both the software are open software and it was very well explained with lots of examples. These are used to create a new courseware for students to have more interactive learning. Dr Jyotsna also talked about the mobile devices and mobile learning. She discussed about the types of mobile learning, i.e., (a) learning through podcasting (b) Mobilets (term coined by them only). She also elaborated on user generated content and mobile learning authority tools.

One of the delegates asked "Is there any institution/company which is developing ILMs?" Dr Jyostna answered that there are number of companies who are developing it, e.g., IBM and this technology is called as cave technology. In the next 4 to 5 years it will be launched and it will bring revolution in the world and 3D technology will become as common as LCD. ∎

TUTORIAL 9

A Tutorial On Data Mining of Digital Repositories: Tools & Techniques
Manohar Lal and M P Mishra
SOCIS, IGNOU

Prof Manohar Lal and Mr M P Mishra in their tutorial on Data Mining of Digital Repositories: Concepts, Tools and Techniques highlighted about data mining which is the digital repositories which contains large amount of data. Mr Mishra talked about different types of data and databases. He discussed about stages of decision making. He elaborated about the data warehouse which if customized then called as Data mart. He also talked about how to extract knowledge from data by using KDD stages. Further, in his lecture he threw light on the architecture, tools requirement, current stage, mistakes of data mining. He concluded by talking about web mining. Prof Lal equated data mining with extraction of gold nuggets from gold ore and said that computer science is applied as executable mathematics to reap the entire area of data mining. He explained about different types of reasoning at length and associated it with symbolic logic. He discussed about the artificial intelligence, artificial neural network, fuzzy logic, rough set theory. ∎

KNOW YOUR SPEAKERS

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