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NACLIN 2024 : A Report



NACLIN 2024 Inauguration

The 27th National Convention on Knowledge, Library and Information Networking – NACLIN 2024 on the theme 'Smart Libraries: Inspiring, Engaging, Enabling and Connecting Users, Communities for Building Knowledge Societies' was organised by DELNET-Developing Library Network, New Delhi in collaboration with Medi-Caps University, Indore at Hotel Sayaji, Indore from September 25-27, 2024. Nearly 250 participants from different parts of India including library experts, librarians, LIS professionals, researchers, scholars, students, exhibitors and product demonstrators actively participated in the Conference. It was for the first time in the history of NACLIN that the Convention was held in the state of Madhya Pradesh. The city of Indore, having the proud distinction of being the cleanest city of India, hosted the Conference.

The Inaugural function on September 25, 2024 began with an invocation of Saraswati Vandana by the students of Medi-Caps University, Indore. It was followed by the lighting of the lamp marking the inauguration of NACLIN 2024 by the Chief Guest Dr. Ram S. Shrivastava, Chairman, Maharaja Ranjit Singh College of Professional Sciences (MRSCPS) Indore and a reputed physicist and an academician, in the esteemed presence of Shri K. Jayakumar, President, DELNET (former Chief Secretary, Kerala and Jt. Secretary, Ministry of Culture, Government of India); Prof. (Dr.) Dilip K. Patnaik, Vice-Chancellor, Medi-Caps University, Indore; Dr. Sangeeta Kaul, Director, DELNET & Organising Secretary, NACLIN 2024 and Dr. Anurag Kumar Khare, Librarian, Medi-Caps University, Indore & Co-Organising Secretary, NACLIN 2024.

The welcome address was jointly delivered by Dr. Sangeeta Kaul and Dr. Anurag Kumar Khare. The special address was delivered by Prof. (Dr.) Dilip K. Patnaik, Vice-Chancellor, Medi-Caps University, Indore. He lauded the efforts of DELNET in organising NACLIN 2024 at Indore and expressed his gratitude for choosing Medi-Caps University, Indore as its partner for organising the Convention. Prof. Patnaik made an impressive, pertinent statement, "You know what you know, but you don't know what you don't know". He said that library professionals have to play a crucial role in discovering the unknown and to offer help for the betterment and improvement of society. He observed that the roles of the LIS professionals are not just to safeguard the assets but to be prepared for the new emerging roles. He emphasised that professionals need to do smart and hard work in the libraries to meet the growing demands of the users' community. He also urged the need for sharing the best practices among professionals. Dr. Patnaik said that the world has moved from the technology era to the social era and libraries have to become vibrant places of interaction and places of learning.

It was followed by the release of NACLIN 2024 pre-conference publication containing 21 papers of the Conference, edited by Dr. Sangeeta Kaul and Dr. Anurag Kumar Khare and also the NACLIN souvenir was released on the occasion by the Chief Guest Dr. Ram S. Shrivastava, Chairman, Maharaja Ranjit Singh



Release of NACLIN 2024 Publications

College of Professional Sciences (MRSCPS) Indore.

Dr. Shrivastava delivered the inaugural Chief Guest address. He dwelt at length on the genesis of computing technologies to the world of learning and informed about his long term association with Holkar Science College, Indore. Dr. Shrivastava highlighted the difficulties which were encountered by the researchers and scholars some 3-4 decades ago wherein arranging the references only through mechanical document delivery which was very expensive in those days and times. He appreciated the path-breaking efforts of DELNET in establishing a digital library network which the distinguished Chief Guest felt is in line with the vision of 'Atma Nirbhar Bharat' of the Hon'ble Prime Minister of India. Dr. Shrivastava emphasised the fact that information and technology must reach each and every citizen in the country. He also shared an interesting fact that 2.5 billion research papers were published last year and the top contributing countries are USA, Russia, China, Japan, Germany, India and France.

He said that more than 95 per cent of the research papers are in their regional languages, whereas in India nearly 99.9 per cent of the publications are in English language only. He urged the need to empower the regional languages in India. The Chief Guest concluded the address by mentioning that the future is of quantum computing.

It was followed by the Presidential Address by Shri K. Jayakumar, President,

DELNET. He said that it is an immensely happy occasion for DELNET to organise NACLIN 2024 as it is growing from strength to strength. He further affirmed that NACLIN serves an intelligent purpose for Library and Information Science professionals. He appreciated the resounding response received from the LIS fraternity with a massive participation of professionals. Shri K. Jayakumar said that NACLIN is a learning process for DELNET. Every



NACLIN 2024 Exhibition



Dr. Nabi Hasan, Head Librarian, IIT Delhi

NACLIN indicates the vision and mission of DELNET and DELNET feels extremely honoured that the library professionals appreciate the functioning and services of DELNET. He added that we are happy to be in a much celebrated city of Indore as every city in India compares them with Indore for being the cleanest city. He further emphasised that in a world where knowledge is capital and data is treasure, the task of the library professionals is under constant change. He concluded his Presidential address by mentioning that NACLIN urges all of us to be eternally vigilant and innovative and to be constantly aware of the changing contours of technology, challenges of information management, hitherto unknown opportunities, threat of obsolescence and the value of constructive involvement. He wished everyone the great learning experience and exploring the widened opportunities for the benefit of libraries and library professionals.

The inaugural function ended with the

Vote of Thanks by Dr. Sangeeta Kaul, Director, DELNET.

It was followed by the Inauguration of NACLIN 2024 Exhibition wherein a number of leading companies exhibited their products and services. It included Balani Group, New Delhi; Beegees Computers Pvt. Ltd., Mumbai; Cyber

Peace Foundation, New Delhi; Drillbit, Bengaluru; Gale, A Cengage Company, New Delhi; New Age International; Rapid Radio Solutions Private Limited, Ahmedabad; M/s Spacious Book House, New Delhi and Trestle Labs, Bengaluru.

The first tutorial on 'Emerging Trends and Technologies in Library and Information Services' was conducted by Dr. Nabi Hassan, Head Librarian, IIT Delhi. The session was most enlightening, engaging and empowering and was greatly valued and appreciated by the participants.

It was followed by product demonstration by Balani Infotech Pvt. Ltd., conducted by Mr. Anurag Gupta, Territory Manager (West) and Ms. Priyanka Harne, Product Associate. The presentation on Gale, A Cengage Company was conducted by Mr. Utkarsh Shrivastava, Sales Manager, North India and and Ms. Micky Mehta, Digital Product Trainer. The second tutorial on 'Redesigning Library Spaces of Smart Libraries' was conducted by Dr. Sangeeta Kaul, Director, DELNET.

DELNET had included a new feature in NACLIN 2024, i.e. NACLIN 2024-Ideathon-Best Ideas on the topic



NACLIN 2024 - Ideathon



Delegates Enjoying Dinner

'Smart Libraries, Smart Technologies and Smart Librarians'. The session's Expert Jury Members were Dr. P. R. Goswami, Former Director (Libraries), Ministry of Culture, Government of India, New Delhi; Dr. Vivek Patkar, Independent Researcher, Mumbai and Dr. Anurag Kumar Khare, Librarian, Medi-Caps University, Indore. The session witnessed the great participation from the participants and it was truly a knowledge sharing session. The three best ideas were selected in each category, i.e. Smart Libraries, Smart Technologies and Smart Librarians. The professionals who shared their best ideas included: for Smart Libraries: Mr. Tapesh Sinha, (DESIDOC); Ms. Sarita Waghate, (Brahmos) and Mr. Sumit Sundar Ray (IIM Indore). For Smart Technologies – Mr. Tapesh Sinha (DESIDOC), Dr. K. Adhinarayana (Bharatidasan Institute of Management), Trichy and Mr. Sumit Sundar Ray (IIM Indore). For Smart Librarians category the best ideas were given by Ms. Sarita Waghate (Brahmos), Mr. Amitabh Saran (formerly with Allahabad High Court) and Ms Priyatama Sharma (Azim Premji University, Bhopal).

In the evening, all the participants

were taken to Nakhrali Dhani, Indore for a cultural evening. It was followed by a networking dinner and a musical evening which was enjoyed immensely by all.

On the second day of NACLIN 2024, the first Technical Session was devoted to 'Emerging Trends and Technologies in Libraries and Cyber Security Concerns'. The session was chaired by Dr. J. K. Pattnaik, Scientific Officer 'F', Incharge Library, SIRC, Raja Ramanna Centre for

Advanced Technology (RRCAT), Indore and Rapporteur of the session was Ms. Sushma Zutshi, Librarian, Centre for Air Power Studies, New Delhi. The first keynote paper entitled 'Emerging Trends and Technologies in Libraries: An Overview' was presented by Dr. M. G. Sreekumar, Director Libraries, Jio Institute, Panvel, Dist. Raigad, Maharashtra. The second keynote presentation of the session was delivered online by Major Vineet Kumar, Founder and Global President, Cyber Peace Foundation. Mrs. Anindita Mishra, Senior Consultant and Master Trainer, CPF was present in person. The last keynote paper of the session entitled 'Kibo: Transforming Libraries with AI-Technology to Overcome Barriers of Literacy, Language and Disability' was delivered by Ms. Akshita Sachdeva and Mr. Bonny Dave, Co-founders, Directors, Trestle Labs, Kibo. The paper entitled 'Harnessing the Power of Python for Data Mining in Libraries' was delivered by Ms. Rachna Patnaik, Scientist/Engineer SG and Head, Library & Knowledge Management Division, Space Applications Centre, ISRO, Ahmedabad. Another paper entitled 'SciSpace Copilot: Accrediting



Dr. M. G. Sreekumar



Major Vineet Kumar delivering the keynote presentation online

Research Through Artificial Intelligence: A Case Study conducted' was delivered by Dr. Bipin B. Nargide, Assistant Librarian, Gokhale Institute of Politics and Economics (Deemed University), Pune. The paper entitled 'Artificial Intelligence (AI) Applications in Libraries: A Bibliometric Analysis from the Indian Perspectives' written by Dr. Prafulla Kumar Mahanta, Librarian, Digboi College, Digboi, Tinsukia, Assam; Mr. Dulumani Sarma, Librarian, Habraghat Mahavidyalaya, Krishnai Goalpara, Assam and Dr. Tripti Gogoi, Assistant Professor, DLISc, Somaiya Vidyavihar University, Mumbai was presented by Dr. Tripti Gogoi. The paper entitled 'The Role of Discovery Tools and Technologies in Modern Libraries: Revolutionising Information Access and Review of Discovery Tools Available at DESIDOC' written by Mr. Tapesh Sinha, Scientist 'F'; Mrs. Dipti Arora, Technical Officer 'C' and Dr. K. Nageswara Rao, Scientist 'G' and Director, Defence Scientific Information and Documentation Centre (DESIDOC), DRDO, Ministry of Defence, Delhi was presented by Mr. Tapesh Sinha. The paper entitled 'Metaverse Libraries: Opportunities and Challenges for the Differently Abled Patrons' was delivered

by Ms. Sarika Praveen Agale, Library Incharge, Symbiosis Institute of International Business, (SIIB), Symbiosis International Deemed University, Pune. The last paper of technical session I entitled 'Smart Library Services: The Impact of QR Codes at TMI Learning Resource Centre, Pune' was delivered by Dr. Rahul Viswe, Librarian, Tolani Maritime Institute, Pune. It also deserves

mention that the printed copies of the publication entitled *Cyber Peace Essential : Cyber Security Awareness Handbook* published by Cyber Peace Foundation and DELNET was distributed to the delegates.

The second Technical Session II was devoted to the "Innovative Library Services and User Engagement". The session was chaired by Prof. (Dr.) Ramesh C. Gaur, Dean & Director (Library & Information) & Head, Kalanidhi Division, Indira Gandhi National Centre for the Arts, New Delhi. The session Rapporteur was Mrs. Mayuri U. Kendurkar, Assistant Librarian, Medi-Caps University, Indore. The invited keynote presentation entitled 'Libraries and User Engagement: British Council Experience' was delivered by Ms. Neeti Saxena, Senior Manager, Digital Libraries, British Council, New Delhi. The paper entitled 'Library Space Framework for Academic Libraries' written by Ms. Melborine Nongspung, M.Lib.I.Sc. Student, Department of Library and Information Science, Manipal Academy of Higher Education, Manipal and Dr. Mahabaleshwara Rao, Associate



Mrs. Neeti Saxena



Dr. P. R. Goswami

Professor and Deputy Chief Librarian, Department of Library & Information Science and Health Sciences Library, Kasturba Medical College, Manipal Academy of Higher Education, Manipal, Karnataka was delivered by Dr. Mahabaleshwara Rao. It was followed by a product demonstration on DrillBit – Plagiarism Detection Software which was presented by Mr. Jayanna Belavadi, Founder & CEO, DrillBit, Bengaluru.

In the post-lunch session, Technical Session III was devoted to the 'Digital Knowledge Resources and Building Knowledge Societies'. The session was chaired by Dr. M. G. Sreekumar, Director Libraries, Jio Institute, Panvel, Dist. Raigad, Maharashtra. The session Rapporteur was Mr. Syed Shuaib Ahmad, Assistant Library and Information Officer, National Medical Library, Directorate General of Health Services (DteGHS), Ministry of Health and Family Welfare, Government of India, New Delhi. The keynote presentation entitled 'Indigenous Knowledge Resources of India: A Brief Account with Suitable Examples' was presented by Dr. P. R. Goswami,

Former Director (Libraries), Ministry of Culture, Government of India, New Delhi. The second keynote presentation entitled 'Harnessing Digital Knowledge Resources for Inclusive and Sustainable Knowledge Societies' was presented by Prof. (Dr.) Ramesh C. Gaur, Dean & Director (Library & Information) & Head, Kalanidhi Division,

Indira Gandhi National Centre for the Arts, New Delhi. The third keynote presentation entitled 'Indian Knowledge Systems: Preserving the Past for Future' was presented by Dr. Anupam Jain, Professor of Mathematics & Director, Centre for Research in Ancient Indian Mathematics, DAVV, Indore (IKS Centre). The paper entitled 'Effectiveness of Digital Learning Platforms Amongst Faculties, Librarians and Students of Affiliated Colleges of Goa' written by Mr. Sunil Madhukar Gauns, Librarian Grade – I, GVM's Dr. Dada Vaidya College of Education, Farmagudi, Ponda; Mr. Sudhir Baburao Halvegar, College Librarian, Vasant Joshi College of Arts and Commerce, Vasco; Ms. Manasi Dattatraya Rege, College Librarian, VVM's Shree Damodar College of Commerce & Economics, Margao and Ms. Padmavati S. Tubachi, College Librarian, DPM's Shree Mallikarjun & Shri Chetan Manju Desai College of Arts, Commerce, Science, Canacona, Goa, was presented by Mr. Sunil Madhukar Gauns. Another paper entitled 'Use of Open Access Resources and Software in Library Services in Developing Countries:



Prof. (Dr) Ramesh C. Gaur



Dr. Vivek Patkar

Comparative Study of Libraries in India and Tanzania' was written by Dr. Vrushali Dandawate, Librarian, AISSMS College of Engineering, Pune; Mr. Deogratius Daniel, Library Officer Systems Librarian, The Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania and Dr. Vishal Gaikwad, Librarian, D.Y. Patil Arts, Commerce and Science College, Pune and was presented by Dr. Vrushali Dandawate. The paper entitled 'Promoting Scholarly Interaction Through Digital Resources: Discovery and Accessibility at Jain University: A Case Study' written by Mrs. Prathibha D. P., Librarian and Mr. H. N. Manjunath, Chief Librarian, Jain (Deemed-to-be-University), Bengaluru was presented by Mrs. Prathibha D. P. The paper entitled 'Digital Library Services in Government Agriculture Colleges of Rajasthan: A Study' written by Mr. Mukesh Kumar Menaria, Research Scholar, Dept. of Library & Information Science and Dr. M. Suresh Babu, Associate Professor, Dept. of Library & Information Science, Mandsaur University, Mandsaur, MP was delivered by Dr. M. Suresh Babu. The paper entitled 'Preserving Literary Heritage in the Digital Age: A Case Study of the Kerala Sahitya Akademy

Library, Thrissur' written by Sr. Jisna Jose, Librarian, Vimala College (Autonomous), Thrissur and Mr. Saji Shaijan, Student, M.L.I.Sc., Indira Gandhi National Open University, New Delhi was presented by Sr. Jisna Jose. The last paper entitled 'Awareness and Attitude on Plagiarism Among Research Scholars: A Case Study of Selected Private Universities of Indore' written by Mr. Kishore Kumar Prajapat, Research

Scholar and Dr. Anil Kumar Jain Professor, School of Studies in Library and Information Science, Vikram University, Ujjain, MP was presented by Mr. Kishore Kumar Prajapat.

The last technical session of the second day i.e. Technical Session IV was devoted to 'Human Resource Development in Libraries'. The technical session was chaired by Dr. Vivek Patkar, Independent Researcher, Mumbai. The Rapporteur was Prof. Munmun Bhattacharjee, Assistant Professor & Librarian, Eastern Institute for Integrated Learning in Management, Kolkata. The Keynote Paper entitled 'Role of the Library and LIS Professionals in the Society 5.0' was delivered by Dr. Vivek Patkar, Independent Researcher, Mumbai. The paper entitled 'Use of Soft Skills for Effective Digital Transformation Among New Age Library Professionals' written by Prof. M. Doraswamy, Professor, Department of Library & Information Science and Vice-Chancellor (I/c), Dravidian University, Kuppam, Chittoor Dist. and Dr. B. R. Doraswamy Naick, Professor & Head, University Library, Jawaharlal



Cultural Evening - A glimpse



Dr. Geeta Malhotra

Nehru Technological University (JNTU), Kakinada, Andhra Pradesh was presented by Dr. B. R. Doraswamy Naick. The second paper entitled 'Evaluation of Soft Skills Among Library Professionals of Meghalaya (India): A Study' written by Dr. Jacqueline J. Thabab, Assistant Professor and Ms. Betbhalin Lyngdoh, Research Scholar, Department of Library & Information Science, North Eastern Hill University (NEHU), Shillong was presented the next day by Ms. Betbhalin Lyngdoh as she was unwell on the scheduled day of the presentation. The last paper of the technical session entitled 'Issues of Employability Among Library Professionals in India' was presented by Dr. Deepak Sharma, Assistant Professor and Librarian, Indian School of Hospitality, Gurugram, Haryana.

It was followed by a visit to the Exhibition Area. The evening of the second day was made more memorable with the Cultural Evening at Hotel Sayaji wherein besides the cultural troupe, the participants wholeheartedly participated in the

cultural evening with their wonderful songs, poetry and dance performances. It was an evening which will always be cherished as a most memorable one.

On the last day of the conference the technical session V was devoted to "Public Libraries and Community Engagement Services". The session was

chaired by Dr. P. R. Goswami, Former Director (Libraries), Ministry of Culture, Government of India, New Delhi and Co-Chaired by Dr. G. D. Agarwal, Chairman, Indore Division Library Association. The Rapporteur of the technical session was Ms. Priyanka Jain, Librarian/Documentalist, Centre de Sciences Humaines (CSH), New Delhi. The Keynote Presentation entitled 'Creating Safe Community Spaces in Public Libraries with Strong Community Connect' was delivered by Dr. Geeta Malhotra, Country Director, Read India, Gurugram, Haryana. It was followed by another keynote presentation on "Government Central Library, Gwalior – the First Digital Public Library of MP" was delivered by Dr. Vivek Kumar Soni, Library Manager, Government Central Library, Gwalior. It was followed by a brainstorming session on Revitalising Public Library Services which generated many deliberations among the expert speakers and participants and was one of the most engaging sessions of NACLIN 2024.

The last Technical Session VI was devoted to the 'Library Resource Acquisition/Library Resource Sharing/



Dr. Vivek Kumar Soni speaking at NACLIN 2024



Dr. Sandeep Kumar Pathak addressing at NACLIN 2024



The Panel Discussion moderated by Dr. Sangeeta Kaul



Shri K. Jayakumar, President, DELNET at the Valedictory Function

Consortium Practices'. The session was chaired by Dr. Nimai Chand Saha, University Librarian, Visva Bharati, Santiniketan, Birbhum Distt., West Bengal and Co-Chair by Dr. Rakesh Kumar Khare, Librarian & Head of the Department, Library and Information Science, Rabindranath Tagore University, Bhopal. The Rapporteur was Ms. Sarita Waghate, Deputy Manager, BrahMos Aerospace, New Delhi. The Keynote Presentation entitled 'Emerging Trends in Consortia Practices and Model for E-Resources Subscriptions' was delivered by Dr. Sandeep Kumar Pathak, Librarian, Indian Institute of Science Education and Research (IISER), Bhopal. Another Keynote Presentation entitled 'DELNET: Harnessing the Power of Library Networking' was delivered by Dr. Sangeeta Kaul, Director, DELNET, New Delhi. The paper entitled 'User-Centric, Evidence-Based Resource Acquisition in DRDO's Special Library: A Case Study of Information Centre for Armament Technology (ICAT), ARDE, Pune' was presented by the authors Mr. A. R. Sarode, Technical Officer B and Mr. A. K. Pandey, Scientist E, Armament Research and Development Establishment (ARDE), Pune. The last paper entitled 'Approaches for Effective Electronic Resources Acquisition in College Libraries of Goa' written by Mrs. Sonia Mukesh Desai, Research Scholar and Dr. Vaijanath Ramchandra Kamble, Research Guide, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, North Maharashtra was presented by Mrs. Sonia Mukesh Desai.

The panel discussion on the theme of the Conference 'Smart Libraries: Inspiring, Engaging, Enabling and Connecting Users, Communities for Building Knowledge Societies' was organised after the technical sessions. It was moderated by Dr. Sangeeta Kaul. The panelists were Prof. M. Doraswamy, Professor, Department of



Dr. Anurag Kumar Khare receiving a Plaque of Appreciation

Library & Information Science, & Vice-Chancellor (I/c), Dravidian University, Kuppam, Chittoor Dist.; Dr. M. G. Sreekumar, Director Libraries, Jio Institute, Panvel, Dist. Raigad, Maharashtra; Dr. Pramod S. Nair, Dean (Engineering) Medi-Caps University, Indore; Mr. Bonny Dave, Co-Founder, Trestle Labs, Kibo and Dr. K.

Adhinarayanan, Librarian, Bharathidasan Institute of Management, Tiruchirappalli, Tamil Nadu.

The participants of NACLIN 2024 shared their valuable feedback, appreciating the organisation of the most enriching and memorable conference.

In the Valedictory session, the special address was given by Prof. (Dr.) P. Silavainathan, Registrar, Medi-Caps University, Indore. It was followed by an address by Dr. Pramod S. Nair, Dean (Engineering) Medi-Caps University, Indore. The Presidential Address was delivered by Shri K. Jayakumar, IAS, President, DELNET & Former Jt. Secretary, Ministry of Culture, Government of India and Chief Secretary, Government of Kerala.

The vote of thanks was given by Dr. Sangeeta Kaul, Organising Secretary, NACLIN 2024 and Dr. Anurag Kumar Khare, Co-Organising Secretary, NACLIN 2024.

The certificates of participation were distributed to all the delegates.

NACLIN 2024 was supported by Balani Group, DrillBit, Gale-A Cengage Company and CyberPeace Foundation.

We look forward to welcoming you at NACLIN 2025. ■



NACLIN 2024 Organising Team

Art of Leadership



A Webinar on the 'Art of Leadership' was organised by DELNET in collaboration with Navrachana University, Vadodara on February 17, 2024. Dr. Sandeep Vasant, Registrar, Navrachana University, was the distinguished speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Dr. Sandeep Vasant and all the esteemed dignitaries and library professionals who joined the session from different parts of India and abroad. The session was attended online by 354 participants.

Dr. Sandeep Vasant started the presentation with a survey to understand the participants' viewpoints on different aspects of leadership. In the presentation, he shared his visionary thoughts on leadership and talked about different leadership traits and styles along with some case studies on dealing with complex situations. He believed that a leader is someone who challenges the status quo and does not take things for granted and further observed that a leader should have the ability to deliver results.

Dr. Sandeep Vasant said that we live in the VUCA world and noted that VUCA stands for Volatility, Uncertainty, Complexity and Ambiguity. He talked about the Covid experiences when the world became volatile and organisations, academic Institutions became clueless. He mentioned how technology helped them to carry on with their classes in those complex times. He further explained how this VUCA world can be disrupted. He said that to avoid volatility the leader must have a vision, an enormous understanding of the domain, clarity to give direction, and agility to adapt to any criticism. He believed that a leader can convert the VUCA world with the following characteristics, i.e. vision, understanding, clarity and agility. He reflected on some of the world's most eminent leaders like Malala Yousafzai, Stephen Hawking, Mahatma Gandhi and Mother Teresa. He talked about how Malala Yousafzai challenged the status quo and became a visionary leader for all the women in that region. He further highlighted various characteristics of a great leader. These characteristics are vision, direction,

strategy, strong communication skills to inspire people, and crisis management skills so that they can deal with any type of situation. He noted that a person who is in a leadership position must define the purpose, have clarity of thought, set the direction, and devise a strategy with his experience. He also stressed the crisis management skills that a person will learn along with the years of experience. He stated that there are different styles of leadership and emphasised that a leader should choose his style wisely. He held that a leader is always valued when he leads from the front and showed a graphic representation that depicts how a leader can decide while leading a company or organisation. He affirmed that a leader needs to invest appreciable time and effort to get the desired support from everyone and make a decision with a consensus.

Dr. Vasant highlighted that the first parameter of leadership is ethics. He observed that a leader should introspect if their solution is ethically and morally correct and should endeavour to create a balance between right and wrong. According to him, the distinguishing trait between a manager and a leader is that a manager does things as given in the manuals while a leader reflects on his actions and does the right things for the organisation. He maintained that while doing the right things in an organisation there will be some degree of difference in ideologies so the leader must have conflict and perception management skills. He said that these skills come with vast experience in understanding and respecting different viewpoints. He commented on the distinguishing factors between ethical and unethical leadership. He said that practising ethical leadership is difficult but their results are encouraging and sustainable and will help to build a favourable reputation in the organisation. He mentioned that ethical leadership will enhance their credibility

and dependability which will boost their confidence and cited the example of the fall of PayTM and Silicon Valley Bank due to unethical leadership. He recalled the famous quote of Mahatma Gandhi - "Be the change you want to see in this world" and explained how one has to set an example before leading people.

Dr. Sandeep Vasant discussed the importance of purpose in leadership. He mentioned that the purpose of leadership should involve solving a complex problem that is impacting a mass and believed that before leading any organisation one must decide its purpose. He further held that after becoming a leader, he should think about the success and growth of everyone in the organisation. He said that purpose determines how driven the leader is, what problem he is solving, how he can make this world a better place to live and how he makes a difference to people's lives. He talked about the remarkable journey of TATA and their mission to improve the quality of life of the communities. According to him, TATA has served communities globally through long-term stakeholder value creation based on leadership with trust. He opined that the real test of human endurance comes when the tide is always against one and it demands immense courage. He further mentioned that along with endurance a leader should also have strong communication skills and shared three points on why communication is so important, i.e. sharing your larger vision with followers, working collectively towards the vision, to establishing a leader-follower relationship. He further stressed clarity of mind to build a strong leader-follower relationship. He suggested that the participants should listen to the thought-provoking speech by Martin Luther King which revolved around equality and justice for everyone. He explained that the speech highlighted that people should not be

judged by their race, caste, and creed created in our society, rather they should be judged and assessed by their knowledge.

Dr. Sandeep Vasant emphasised some pertinent traits of effective communication. According to him, communication is not just about talking but also about listening. Another trait he mentioned is that it is not what you say but how you say it which is important. He stressed that a leader should know how to make a point without being argumentative and further added that an argument that is backed by a strong and clear purpose makes a powerful impact. He talked about the importance of trust and team management in dealing with many people. He explained how to build trust by exemplifying yourself and leading the way and gave the example of the leadership of then- Indian Captain Saurav Ganguly when he took responsibility for the team and brought the right people together to win the World Cup 2011. He referred to the three parameters of leadership that need to be closely evaluated – Character, Execution and Legacy. While talking about character, he remarked that what a leader does

when he is not answerable to anyone or when no one is watching reveals his true character. Another important factor he highlighted is to lead without arrogance and remarked that most people after achieving a leadership position become arrogant. He shared the story of Alexander, the Great which reflects how arrogance is futile. The story describes how Alexander, the Great asked his followers to keep his empty hands out of the coffin as he wanted everyone to understand that despite conquering the whole world, he was going empty-handed.

As a nature lover, Dr. Vasant is of the view that we can learn several leadership traits from nature. He mentioned that resilient leadership has to be like a mighty oak tree and said that the first thing that one can learn from nature is to have a strong foundation. He believed that just like the mighty oak tree a leader should have a connection to the roots to go higher and should have a tendency to give and without trying to take anything back. According to him, another quality that we can imbibe from nature is endurance. He talked about how nature teaches us to



Learning from nature

Resilient Leadership is to be Like the Mighty Oak Tree

- Strong foundation – connecting with its root
- Tendency to give – Shelter and nourishment
- Endurance in various climatic condition
- Organic growth but rock solid
- Recognition and Care about ecosystem
- Legacy and Growth

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inculcate organic, rock-solid growth and care for the ecosystem. He further added that leaders must leave a legacy with a growth mindset and mentioned that leadership lessons can be learned from the Bhagavad Gita. He shared the story of how Lord Krishna conquered Arjuna's ego.

Dr. Sandeep Vasant illustrated the Strategy Execution Mismatch (SEM) syndrome. He believes that execution fails because action is less glamorous than strategy and explained that most of the time we fail to follow the execution part of the strategy. According to him, most of the executions fail because of the lack of the art of execution and recalled the famous statement by Addison that goes: "Vision without execution is hallucination". Along with character and execution, he insisted that leaders should leave a legacy for future generations and said that all the eminent world leaders have left a great legacy for us that we are following to date. He mentioned that legacy is accomplished through impactful contributions made towards a team or organisation.

Dr. Vasant illustrated the most important traits of leadership. According to him, a leader should always be a lifelong learner. He explained that learners become remarkable through learning and should devise a mechanism to learn from reading books, understanding different people, and trying to communicate with them. He said that leadership is a complex endeavour that involves analysing and challenging the status quo and emphasised the process of learning, unlearning, and relearning. He talked about how he had to learn so many new concepts when he started with his teaching and unlearn those and relearn new concepts as he became an administrator. He said he had to relearn psychology as he had to deal with people from different backgrounds and added that along with

lifelong learning a leader must have innovation and creativity. According to him, innovation can be enhanced through critical and creative thinking. He mentioned that he is associated with an NGO named Agastya International Foundation where they encourage creative thinking among students. He mentioned how two young girls from that NGO got international recognition for their curiosity and creative thinking towards the environment. He further said that innovation brings change and change brings risk. While talking about innovation and risk, he cited an example where he resolved the problem of attendance with an innovative solution. He further added that this solution involves a slight resistance and risk but he mitigated the risk by devising different mechanisms. He then shared a thought-provoking video of the popular story of the turtle and rabbit. The story was given an interesting twist and highlighted the importance of core competency and teamwork. He

mentioned that along with strengthening the core competencies, a leader must be able to work in a team and harness each other's core competencies. The video also explained the importance of situational leadership where a leader lets the person with the relevant core competency for a situation to assume leadership. He noted that most of the leading companies are successful by following situational leadership.

Dr. Vasant concluded his talk with the philosophy that "Let us lead at least our own life if we cannot lead others" and recited an inspiring doha of Sant Kabir Das.

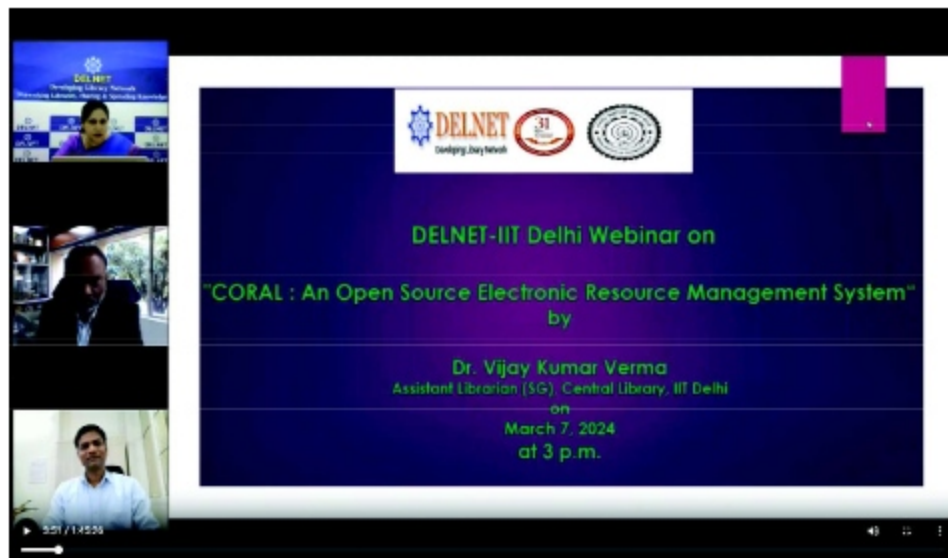
The presentation was followed by a Question and Answer session and Dr. Sandeep wholeheartedly answered all the queries of the participants.

Dr. Sangeeta Kaul thanked Dr. Sandeep Vasant for his inspiring presentation and hoped for more such enriching collaborations. ■

*View the
Video Recording
of the
Webinar
at*

<https://www.youtube.com/watch?v=7MRYElcfjQA>

CORAL: An Open Source Electronic Resource Management System



A Webinar on 'CORAL: An Open Source Electronic Resource Management System' was organised by DELNET in collaboration with IIT Delhi on March 7, 2024. Dr. Vijay Kumar Verma, Assistant Librarian (SG), Central Library, Indian Institute of Technology (IIT) Delhi was the speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET, welcomed Dr. Nabi Hasan, Head Librarian, IIT Delhi, speaker Dr. Vijay Kumar Verma and the participants. The webinar was attended by 1004 participants from India and abroad.

The session commenced with an inspiring speech by Dr. Nabi Hasan. He opined that DELNET and IIT Delhi have equally dynamic teams who perform great work in their respective domains. He said that Dr. Vijay Kumar Verma has been experimenting with many open-source systems and exploring new ways of providing better services to users. He further acknowledged that IIT Delhi is one of the first member of DELNET, hence both share a special bond. He extended his heartfelt gratitude to DELNET for

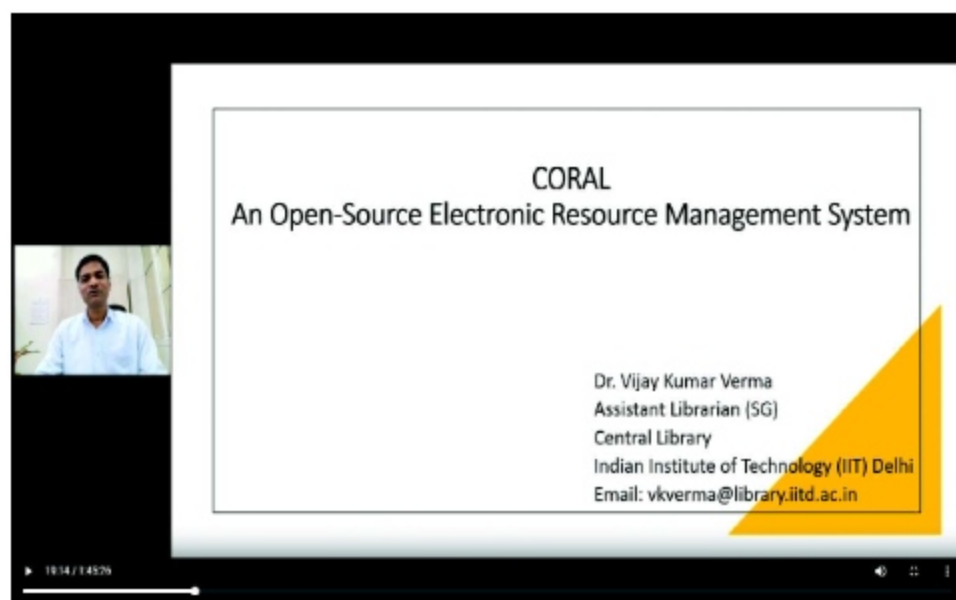
collaborating with them to host several online programmes and wished to host in-person programmes that would enhance networking opportunities. Lastly, he appreciated Dr. Vijay Kumar for all his endeavours in implementing CORAL and looked forward to his presentation.

Dr. Sangeeta Kaul thanked Mr. Nabi Hasan. She then requested everyone to participate in a quick poll. The poll was conducted to assess how many participants are aware of electronic resource management and CORAL. After the poll, she requested Dr. Vijay Kumar to start with the presentation.

Dr. Vijay Kumar Verma started his presentation by explaining what Electronic Resource Management is and the different issues faced by institutions while managing electronic resources. He mentioned that he had surveyed Centrally Funded Technical Institutions (CFTIs) across India which revealed how institutions are managing electronic resources. In his presentation, he covered the topics including Electronic Resource Management (ERMs) and their role, the most pertinent feature of a good electronic resource management

system, what is CORAL, and the implementation of CORAL in Central Library, IIT Delhi. According to him, it is important to talk about electronic resources and their management as there is a great shift in the publication industry. He mentioned that more than 95 per cent of publications across science and technology and more than 85 per cent publications across humanities are published in E-format and managing E-formats is different from print resources. He further stated that more than 80 per cent of the expenditure made by the library was on the procurement of electronic resources. He explained that the nature of electronic resources is something different from print resources and hence their management is very different. He spoke about the literature survey that suggests that libraries across the world are not following all the steps that are required to manage electronic resources. He said that with the evolution of Electronic Resources in libraries all over the world, Western countries have tried to develop their own local electronic resource management system. He mentioned that these locally developed ERMS were inadequate to manage workflow and therefore they moved to paid ERMs. He held that these commercial ERMs are very costly and in that scenario CORAL enters the picture. He affirmed that CORAL has all the functionalities that can be used for the management of electronic resources.

Dr. Vijay Kumar Verma illustrated why there is a proliferation of E-resources in libraries. He observed that libraries spend a huge amount on the procurement of resources because most of the publishers have shifted their publication strategy from print to electronic leading to changes in the acquisition policies of the library. He said that there are various advantages of electronic resources over print resources and information explosion along with information and



communication technology (ICT) has made it easier for libraries and its users to use the electronic resources. He further highlighted the characteristics of electronic resources and said that electronic resources are something to have access to and are not in the physical domain like books. Another point he mentioned is that they come in various formats and their access is governed by certain terms and conditions which are called license agreements. He added that the life cycle of electronic resources is much more complex than print resources and due to the complexities involved in electronic resources the management of electronic resources is more important.

According to Dr. Vijay Kumar, the awareness about electronic resource management is very limited. He said that the management of electronic resources covers a much bigger scope than just the acquisition, renewal, and access and mentioned that electronic resource management covers all the practices involved in the investigation, acquisition, implementation, evaluation, review, and preservation of electronic resources in the library. He explained

the life cycle of an electronic management system that involves different stages starting from investigation and ending at preservation. He said that each stage performs a different function and discussed the important functions of the lifecycle of electronic resource management. Regarding investigating, before acquiring any resource for a library we should know the potential users, for whom we should acquire and undertake an overlap analysis, and ask the publisher or aggregator for the trials to know its features, functionality and type of platform. He emphasised proper documentation of the activities. The next step he talked about is the acquisition of the resources. In this step, he explained how they moved forward to negotiate the pricing and license agreement.

Dr. Vijay Kumar opined that one of the most important aspects of the management of electronic resources is the signing of the license agreement. He described the license agreement as a legal document of terms and conditions that govern access and other features for acquiring the resources. He talked about the different aspects one has to check while signing the license agreement and mentioned that the license agreement

should deal with the definition of site and user. He stressed that library professionals have the responsibility to read between the lines and have clarity on the various aspects of the agreement. These aspects include whether access can be given to our current user, walk-in user or alumni, and the jurisdiction country. He mentioned that it is extremely important to know that in case of any legal complexities where would be the jurisdiction whether it would be the country of origin of the resource or whether it would be the jurisdiction of India. He further added we should ensure that the jurisdiction, should be India rather than the country of origin. He shared that more than 95 per cent of cases of the license agreement signed in IIT Delhi successfully met the negotiation with the publisher and the service provider to make the jurisdiction in India. Another point he made is the post-termination access that involves what would happen if we are not going to subscribe to it next year. He further highlighted that there should be no indemnification which means the license agreement should not be partial to any party and should be balanced in nature. The next step he referred to is the implementation process which involves providing access to the user through library catalogue, discovery tool, and another mechanism. He mentioned that there should be a mechanism to take feedback from the users and further stated that after acquiring the resources it is very important to constantly evaluate the resource to check if there is a downtime or if there is any problem in accessing the resource or not. After evaluation, the next step he discussed is reviewing the resources and deciding whether to continue or cancel the resource. He mentioned that the continuation or cancellation of the resource depends on various aspects like the budget and feedback of the stakeholder. He

explained that while cancelling it one must check the provision in the license agreement on how to preserve it in the local server and access it after cancellation. On the other hand, in the case of renewing the resource, he said that one should repeat the whole process and check if there is any change in terms of the license agreement.

Dr. Verma highlighted the global scenario of the electronic resource management system. He said that the Library Management System (LMS) and Library Services Platform (LSP) are notable to manage electronic resources. While talking about the Indian scenario, he said that Indian libraries use multiple systems for electronic resources and only two CFTs use ERMs. He stated that libraries all over the world face different problems. These problems include the existence of many stand-alone systems for the management of electronic resources, scattered communication, no metadata available for licenses, overlapping of resources, etc. He further shared a survey which revealed that 95 per cent libraries are of the view that the management of electronic resources is different from print and significant time is involved in the management of electronic resources. He held that cost is one of the major reasons why libraries are not using electronic resource management. He defined an electronic resource management system as a system that enables an organisation to manage the life cycle of acquired electronic resources.

Dr. Vijay Kumar discussed the core capabilities of good ERMs. These capabilities should be modular, should manage the custom workflow of electronic resources, preferably be web-based, and have different levels of user permission through which the electronic resources can be managed. He opined that CORAL is one of

the most important ERMS which is available in open source and has all the core functionalities. He shared that Centralised Online Resource Acquisition and Licensing (CORAL) is an open-source electronic management system developed by Hesburgh Libraries at the University of Notre Dame, Indiana, USA. He further said that the first module of CORAL, the licensing module was released in 2010. He mentioned the five interoperable modules of CORAL, i.e. Resources, Licensing, Organisation, Usage Statistics and Management. He gave an overview of the different modules of CORAL and started with the resource module which provides workflow management from the initial request of the resource to the acquisition process. He explained that the resource module encompasses all the activities related to the acquisition of an electronic resource, i.e. ongoing support billing, sending the bill to the accounts section, emailing to the publisher, and other maintenance activities. In the licensing module, he said that it can store and provide access to the digital license, create the metadata of the license, and compare the different expressions of the license. The next module he talked about is the organisation module of CORAL which manages all the contact and account information in one place. He maintained that the usage statistic module provides a solution for storing and managing electronic journals and talked about the management module which stores all the information which are relevant. He stressed that one should design their workflow locally for using CORAL and elaborated that CORAL is very flexible in designing the workflow as per the requirements of the library. Regarding the organisation module of CORAL, he said that it helps in managing contacts and accounts. He stressed on having the record of every organisation from which we get our E-resources. He commented that this module comes with the details of all the major publishers by default and has very good search functionalities.

Dr. Verma highlighted that CORAL has the provision of adding new organisations by setting all the information like Name, Parent Organisation, Organisation URL, Account details, etc. He said that this information can also be customised as per our requirements. He showed the different workflow of the organisation module of CORAL in which the organisation can be added and updated and further mentioned that if there is a downtime one can highlight the issue and directly send the mail to the resource provider which can track the issue and resolve it. The potentials of the organisational module of CORAL are as follows — contact information can be at one place, issue reporting facility, parent-child relation, alias feature, and powerful search. He explained that in the organisation module of CORAL, all the organisational details of a particular publisher or vendor can be in one place and the issue can be directly reported and tracked. He further illustrated the resource module of CORAL. He mentioned that the resource module helps in managing the resources workflow, adding trail information on the new resources, and negotiating with the publishers. He also explained how one can add new resources and customise different fields like name, description, provider URL, alternative URL, format, etc. After submitting the resource, there will be a resource record that highlights product, order, acquisition, access, cataloguing, contacts, accounts, issues, attachments and workflows. Another point he mentioned is that there is an enable alert button that allows getting a notice when the subscription expires and referred to the acquisition details that included the cost history and license and explained how to add new funds and licenses. He noted that CORAL has a very good licensing feature like storing the digital copy of the active or expired license and creating the metadata of the license to know about the different conditions of different license agreements. It also has the

feature to add and compare the expressions that involve the clauses of the license. He talked about adding an attachment which is a copy of communication with the vendor on particular terms and conditions before signing the agreement. After these, he mentioned the functionalities like access cataloguing, contact, and other details. He further emphasised that the issues related to the resources can be recorded which can be used for review and be in a better position to deal with the publisher. He believed that the main motive of electronic resource management systems is to make the process smooth and save time.

Dr. Verma highlighted the various potentials of resource modules of electronic resources, i.e. streamlining the selection and acquisition workflow, supporting the work distribution, and flexible and locally customisable and streamlined communication. He further mentioned the various potentials of the licensing module where one can create their expression, have their digital copy in one place, and track and compare the license terms. He said that the management module allows setting all communication in one place and customising the workflow. He further added that the usage statistics module is another important aspect as it provides storing and managing electronic journals. He explained how its integration with SUSHI can add platform and import usage by establishing SUSHI.

Dr. Vijay Kumar showed a graph that revealed that 90 per cent of Centrally Funded Technical Institutions are willing to use ERMS CORAL. He held that cost is one barrier for which they do not use ERMS and since CORAL is open source it can be used by all institutions. He discussed the implementation of CORAL in IIT Delhi and mentioned that the IIT Delhi library system comprises one main library and 36 departmental libraries. He said that

they have 79,000 electronic resources comprising 30 databases and more than over 9,000 E-books. He added that IIT Delhi invested a huge sum of money in electronic resources and uses LMS-Koha for managing print resources. He highlighted the different practices that were involved before ERMS implementation.

Dr. Verma illustrated some points that have to be considered in ERMS implementation such as making our process smooth, completing the workflow, filling the gap between different sections of the workflow and having a centralised communication without any cost. He described why CORAL is different from other ERMS. According to him, CORAL is one of the tested systems by many libraries across the world and received positive feedback. He further said that it is a simple web interface with a modular structure. Another benefit of CORAL he mentioned is that it is highly customisable and has a good search functionality. He talked about how they work as a team to implement CORAL. He said that the team consists of 3 LIS professionals who designed the workflow and what should be added in the different sections. He said that along with the installation, sustainability and taking the maximum output from the system is extremely important. He mentioned the prerequisite for CORAL and shared that they installed the CORAL version 2020.09 which was downloaded from GitHub.

Dr. Vijay Kumar Verma discussed the various advantages of the implementation of CORAL. These advantages include that the central

library is in a better position to manage the life cycle of resources, stand-alone systems have been reduced, fast retrieval of required information and the system is much more efficient. He is of the view that improvement is an ongoing process and they are working towards license agreement digitisation and metadata creation. According to him, they are also improving their workflow as the electronic resources and publication model are changing. He opined that every system has its pros and cons and CORAL is not different. He mentioned that CORAL does not have a strong user community like KOHA and said that most of the user community of CORAL is based in the US and other European countries. He observed that CORAL lacks in the frequent release of new versions and implementation by Indian libraries. He suggested that before planning CORAL for any library one must define its need and assess the whole system to check which module would help in that library. Lastly, he gave some important links from which one can download CORAL and get some related documentation and videos.

Dr. Vijay Kumar Verma concluded the session by extending his gratitude to the entire team who have directly or indirectly supported the implementation of CORAL.

The presentation was followed by a Q&A session and Dr. Verma answered all the queries of the participants.

Dr. Sangeeta Kaul thanked Dr. Vijay Kumar Verma for the exhaustive presentation. ■

*The Video Recording of the
session is available
at*

<https://www.youtube.com/watch?v=Db4o6G3FFvs>

Navigating Challenges: Public Libraries and the New Manifesto Toolkit for Professionals



The DELNET Annual Lecture on “Navigating Challenges: Public Libraries and the New Manifesto Toolkit for Professionals” was organised online by DELNET on March 26, 2024. Dr. Ester Omella Claparols, Head of Territorial Planning and Quality Library Services, Diputació De Barcelona, Spain and Member, IFLA Public Libraries Sector was the eminent speaker for the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Dr. Ester Omella and also to the online attendees. The lecture was attended by 250 participants from India and abroad.

At the very onset of the presentation, Dr. Ester Omella highlighted four areas that she talked about in her presentation. These included: Library services to Municipalities in the Barcelona region, the new IFLA-UNESCO Manifestos, the library model

behind the new manifesto, the implementation of the manifesto in Barcelona, the toolbox and references about the new manifesto. She mentioned that she is from Barcelona Province which has nearly 6 million inhabitants and their regional government is associated with Library Services that helps municipalities to deliver the library services. She said that they help in the construction and development of Library Services and also give Services networking. She shared that they are dealing with 234 municipal public libraries at present and have 12 mobile libraries for the smallest municipalities. She further stated that 40 per cent of the inhabitants use library services and have received 16.7 million visitors yearly with high amounts of loans and activities for families. She proudly shared that they have organised nearly 40,000 activities in the libraries.

Dr. Omella illustrated the updated IFLA

manifesto which has been approved by UNESCO. She firmly believes that it is a strong tool for advocacy and establishing the strategy for public libraries. She explained three important factors that are responsible for updating this manifesto, i.e. changes in both service provision and public policy, more active and participatory citizenship over time and sociological changes. She mentioned their strategic plan as an example which took consideration of factors like social inclusion, respect for the environment, ageing population, digital inclusion and cultural, functional and gender diversity. She said that the manifesto highlights the utility of public libraries and believes that it is extremely important for library professionals to talk about the social value of public libraries. She added that the new manifesto ensures that libraries not only help in accessing information but also producing, creating and sharing knowledge. According to her, the library of the new manifesto can produce and create with users and reflect on sustainable development. She presented the main changes of the new manifesto in contrast to the manifesto of 1994. She also suggested that everyone should visit the IFLA public library website for detailed information on the changes made in the new manifesto. It is available at <https://ifla.org/public-library-manifesto>. She emphasised that the new manifesto works on scientific progress with the participation of users and their communities in scientific knowledge, research and health information.

Dr. Ester showed a glimpse of a new library in Barcelona that specialises in music and explained the library model that they are planning and developing in their library network. This model offers the users an opportunity to discover, learn, create and share information with the community. She stressed the importance of empowering the user experience and creating a space for

innovation and inspiration. She mentioned that in today's fast-paced world, public libraries serve as a place where users can reflect on critical thinking and connect with the community. She further shared twelve trends shaping the future of libraries that are followed in the manifesto. She said that they have worked with experienced professionals to know the priorities for public libraries and accentuated the four most important out of the twelve trends as considered by the expert professionals. These four trends are Media and Information Literacy, Community Health, Reading Habits and Reading Comprehension, and Sustainability. She then moved ahead to show a video that demonstrated their library model in Barcelona. In the video presentation, the librarians, politicians, writers, and library managers talked about the public library model and how they worked in translating the mentioned twelve trends. She shared that the users are at the centre of their library model.

Dr. Ester Omella gave a brief on the manifesto implementation and the tools used by library professionals to implement the manifesto. She mentioned that since the manifesto was approved in 2022, they had organised manifesto presentations in different countries and showed a glimpse of their manifesto presentation in Barcelona. She said they also organised round tables on cultural rights to present the new manifesto and proudly shared that Barcelona plans to host a congress in October. She highlighted the different workshops that they organised with professionals

to link the manifesto with the priorities and challenges identified in public library services. She also expressed an interest in organising a similar workshop in India and further described the vision of the members of the public library section in IFLA. According to her manifesto, implementation is a shared responsibility for everyone and as members of UNESCO, they offer the material and toolkit for the implementation. She added that the materials are available on their website and emphasised how they worked with politicians and leaders to link public libraries and promotion of cultural rights. Dr. Omella mentioned the need for effective collaboration among administrations and institutions for public library support. She showed a list of resources that a user could access in the public library section on the IFLA website and how they can use them for their library advocacy. She affirmed that they have created a manifesto version in many languages. She focused on a template that has the most essential ideas of the manifesto in English and can be adopted easily. With this, she concluded her presentation and expressed her immense gratitude to be a part of the DELNET annual lecture.

The presentation was followed by a question and answer session. Dr. Ester graciously responded to all the queries of the participants.

Dr. Sangeeta Kaul thanked Dr. Ester Omella for her informative and stimulating presentation. Dr. Omella concluded the lecture with the hope that her presentation would strengthen DELNET's resolve to work collaboratively for the global society. ■

*The Video Recording of the
session is available*

at

<https://www.youtube.com/watch?v=gwlv857AI00>

**Number of Member-Libraries as
on December 31, 2024 - 9056**

Andaman and Nicobar	2
Andhra Pradesh	573
Arunachal Pradesh	7
Assam	62
Bihar	76
Chandigarh	22
Chhattisgarh	137
Dadra & Nagar Haveli	1
Daman and Diu	2
Delhi	343
Goa	35
Gujarat	348
Haryana	422
Himachal Pradesh	74
Jammu & Kashmir	35
Jharkhand	69
Karnataka	382
Kerala	387
Madhya Pradesh	583
Maharashtra	1387
Manipur	10
Meghalaya	9
Mizoram	4
Nagaland	3
Odisha	184
Puducherry	35
Punjab	298
Rajasthan	399
Sikkim	10
Tamil Nadu	1150
Telangana	699
Tripura	10
Uttar Pradesh	1017
Uttarakhand	113
West Bengal	165
& few outside India	
Total	9056

Unleashing the Power of Data Analytics: Shaping the Future of an Innovative Research Ecosystem



A Webinar on “Unleashing the Power of Data Analytics: Shaping the Future of an Innovative Research Ecosystem” was organised by DELNET in collaboration with Jansons Institute of Technology, Coimbatore on March 28, 2024. Dr. E.S. Shamila, Professor, Department of CSE, Jansons Institute of Technology, was the distinguished speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to the speaker, officials of JIT and to all the attendees. The webinar was attended by 480 participants from India and abroad.

Dr. Suresh Kumar, Director, Jansons Institute of Technology, delivered the inaugural address. He believed that in today's tech-savvy era, we are on a journey that not only explores the vast potential of data analytics but also delves into the transformative impact on the research landscape. He

emphasised that data has emerged as the essence of innovation and progress and maintained that the exponential growth of data generation across various domains presents both challenges as well as opportunities for researchers. He highlighted that researchers are at the forefront of harnessing the wealth of information. He was convinced that educational institutes are constantly seeking ways to enhance their academic resources and provide students with access to a wide range of information through collaboration. He talked about how DELNET has brought transformative changes in their academic landscape by enhancing the academic experience for students and faculty alike. According to him, it has not only expanded the access to resources but also fostered a culture of innovation, collaboration and continuous learning. He hoped to leverage this partnership to nurture academic excellence and research innovation in the years to come. Lastly, he encouraged

everyone to actively participate, share their thoughts throughout the session and seek the opportunity to learn, collaborate and chart a course towards a data-driven future.

In the presentation, Dr. E. S. Shamila discussed data analytics and the role of data analytics in the research ecosystem. She defined data analytics as the science of analysing the raw data to conclude any information and mentioned that it is a multidisciplinary field that employs a wide range of analysing techniques which includes mathematics, statistics, and computer science, and draws insights from the data set. She explained that data analytics is a broad term that includes analysing the data in a theorising way, collecting the data, and creating a framework. She added that every piece or item of information we use for everyday work like making tea or tracking footsteps is considered data. She said that all the leading industries use data to make the final decision.

Dr. E. S. Shamila talked about the different data types – structured, unstructured, and semi-structured and explained structured data as data that is in tabular form. In contrast, unstructured data does not have any predefined structure but has text documents, images, audio, or video. She then proceeded to semi-structured data which had some structure but will not fit in the tabular format. She explained the basic flow of Data Analysis which involved defining the need for data analysis, data collection from various sources, data cleaning, analysing the data, and interpreting the results. She further discussed the key components of data analytics. The first key component that she mentioned is Data Collection. According to her, data analytics is initiated by collecting relevant data from various resources like databases, files, census, social media, etc. After data collection, the next step she described is Data

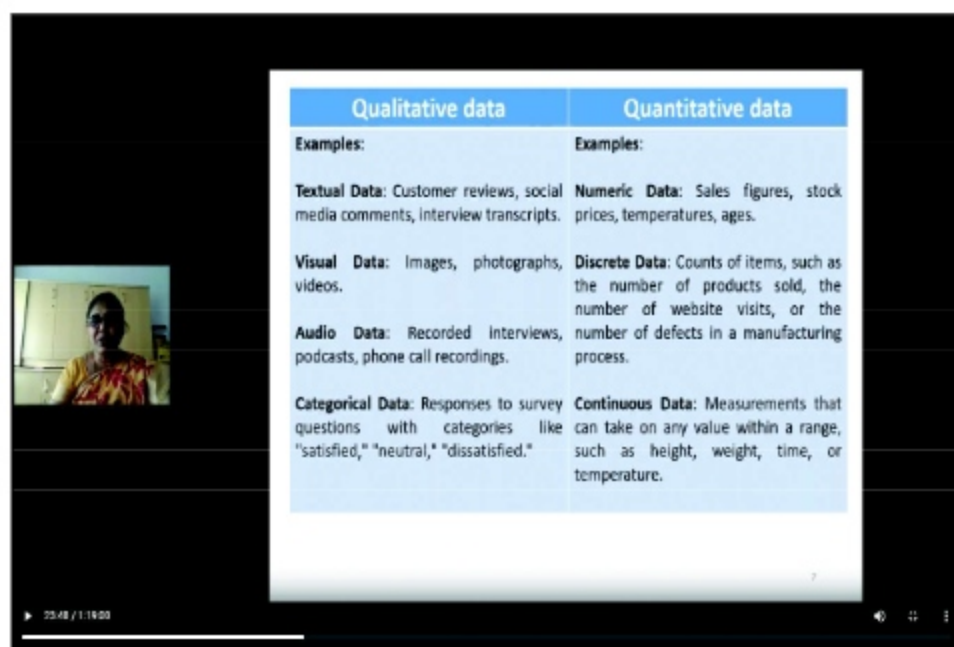
Cleaning. She said that data should be transformed from one format to another as per the user. According to her, this cleaning process helps in handling the missing values, removing the out layers, and standardising the data format. The third step she highlighted is Data Analysis. She mentioned that data analysis can be split into three categories—Exploratory Data Analysis (EDA), Statistical Analysis and predictive modelling. She said that EDA involves exploring and summarising the characteristics of the data using descriptive statistics and visualisation techniques that help to identify the patterns required to collect our data. She then moved to statistical analysis which involves applying statistical methods and techniques to quantify the relationship between variables and to make an inference about the sample population. The third method of data analysis is predictive modelling which involves building statistical and machine learning models to predict or classify based on the historical data. The next step of Data Analysis that she mentioned is visualisation. It involves the processes of representing the data in the mode of graphs. The final step she discussed is Data Interpretation and insights which culminates in the interpretation of the results and deriving the actionable insights from the analysis.

Dr. E. S. Shamila demonstrated the different types of data analysis – Descriptive Analysis, Diagnostic Analysis, Predictive Analysis, and Prescriptive Analysis. She defined Descriptive Analysis as summarising and interpreting historical data with techniques like visualisation, summary statistics, and EDA. Diagnostic Analysis, she said analyses the reason behind events. The next analysis she referred to is predictive analysis which uses historical data to predict future events and outcomes. The last analysis she explained is the prescriptive analysis which focuses on

recommendations for the action and what type of decision one can make based on outcomes that can be expected. While talking about data collection, she said that data can be categorised into two types : quantitative and qualitative. She highlighted the features of quantitative—measurable or countable, relates to the number, comprises fixed values that can be measured accurately, and uses structured data collection techniques. She then talked about the features of qualitative data – descriptive, related to the words or language, subjective in nature, and uses unstructured or semi-structured collection techniques. She gave some examples of qualitative and quantitative data for better understanding.

Dr. Shamila illustrated some of the top statistical techniques for data analysis—linear regression, tree-based model, classification resampling, methods, and unsupervised learning. She described linear regression as a statistical process for estimating the relationship among the variables that helps to model and analyse several variables. She cited some examples of regression such as the effect of petrol prices upon the demand for the petrol run car or the global fall in oil prices due to inflation. She then explained the

tree-based model also called the decision tree which helps to evaluate the performance of the modules. Another technique she highlighted is unsupervised learning. According to her, unsupervised learning is used to validate the stability of the cluster and determine the optimal number of the cluster. She then explained the technique of classification which groups the features of particular characters and then group the data. She further talked about the various tools with different functionalities available for data analysis. She observed that these tools help in growing the demand for data analysis. The first tool she mentioned is Python and demonstrated the role of Python in data analysis. She named a few features of Python like the Pandas for organising and cleaning the data, Matplotlib and Seaborn for EDA, Scipi, and Statsmodel for Statistical Analysis, and Scikit Learn and Tensor Flow for Machine Learning. She alluded to the different types of packages and library files that enhance data analytics. She highlighted that a user could use PySpark for big data processing, Scrapy for Web Scrapping, Dash or Plotly for Dashboard Creation, and



Qualitative data	Quantitative data
Examples:	Examples:
Textual Data: Customer reviews, social media comments, interview transcripts.	Numeric Data: Sales figures, stock prices, temperatures, ages.
Visual Data: Images, photographs, videos.	Discrete Data: Counts of items, such as the number of products sold, the number of website visits, or the number of defects in a manufacturing process.
Audio Data: Recorded interviews, podcasts, phone call recordings.	Continuous Data: Measurements that can take on any value within a range, such as height, weight, time, or temperature.
Categorical Data: Responses to survey questions with categories like "satisfied," "neutral," "dissatisfied."	

Jupyter Notebook for collaboration and documentation. Another powerful tool that she demonstrated is R. She mentioned that R is an Open Source and multi-platform with a range of statistical techniques. She explained the different packages of R Programming. She further added that apart from these techniques, R has extra libraries to improve the performance, mining, database, connectivity, work with your web, reporting the results, and other miscellaneous activities. She then elaborated on Power BI which has diverse options like connecting the data resources, cleaning, and transforming data to produce good visualisation.

Dr. Shamila gave a comparative analysis of data science and data analytics and stated that data analytics focuses on deriving insights from the data while data science encompasses a broad range of activities including analytics. She explained that data science is much wider in its scope as compared to data analytics. She added that data analysis is much more specific and a part of a bigger process. According to her, data science aims to uncover insights and find patterns from large data sets while data analytics is concerned with finding the answers and gaining insights to the existing question. She also pointed out the differences between data science and data analytics based on coding language, programming skills, use of machine learning, scope, goals, data types, and statistical skills. She affirmed that there are various research domains available in data analytics like finance, healthcare, marketing, transportation, retail, supply chain, etc. She emphasised a technique known as the market basket analysis technique and mentioned that this technique is taught in marketing classes as it enhances purchase and sales. She said that this technique involved analysing the most common

combination opted by customers and increasing those products.

After the basic introduction to Data Analytics, Dr. Shamila discussed the important case studies. The first case study she took up was the role of data analysis in Energy Management. She explained that to implement the energy management system to optimise energy distribution and identify the opportunity for confirmation, conservation, and efficiency, one must use the key components of data analytics. She mentioned that the first step involves collecting the data from smart meters, weather sensors, and grid sensors. She moved on to the next step, which involves pre-processing the data by taking the aggregate data at regular intervals and scaling the numerical features. She emphasised the third step i.e. analysis which has three categories: descriptive, predictive, and prescriptive. She explained- in this case, descriptive analytics understands the historical energy consumption patterns while predictive analytics helps to forecast the energy demand based on the historical data lastly, prescriptive analytics recommends action for optimising energy consumption and grid operation. She added that the smart energy management system must be implemented based on the insights and recommendations. Another case study she mentioned is Heart Disease Prediction. According to her, the objective of this research is to develop a predictive model using data analytic techniques to identify the individuals at the risk of heart disease based on demographic, clinical and lifestyle factors. She mentioned that just like the energy management system in this case too the research must follow all

the key components of data analysis. She illustrated that in this case, the researcher must collect demographic, medical, clinical, and lifecycle data and then pre-process the data by converting the categorical data into a numerical format and exploring the dataset with the help of EDA (Exploratory Data Analysis). The third case she highlighted was the Retail Sales Analysis. In this case, she talked about a leading chain store specialising in electronic and home appliances that aims to optimise its sales, strategy, inventory management and marketing to improve profitability and customer satisfaction. She mentioned that the objectives of this analytics are to identify the top-selling products and product categories, understand customer preferences, optimise inventory management, identify the trends of sales and season ability, and transfer the data to the marketing campaigns and promotional strategies. She illustrated how to implement the key components of data analytics in retail analytics. She commented on sentimental analysis which is a research area where the researchers focus on the tweets related to a brand as data and pre-process the data by removing emojis, hashtags, URL and develop a model to label the data as positive, negative, or neutral. She concluded her talk by highlighting the wide range of fields and research areas where data analytics can be applied.

The presentation was followed by a Question-Answer session. Dr. Shamila answered all the queries lucidly.

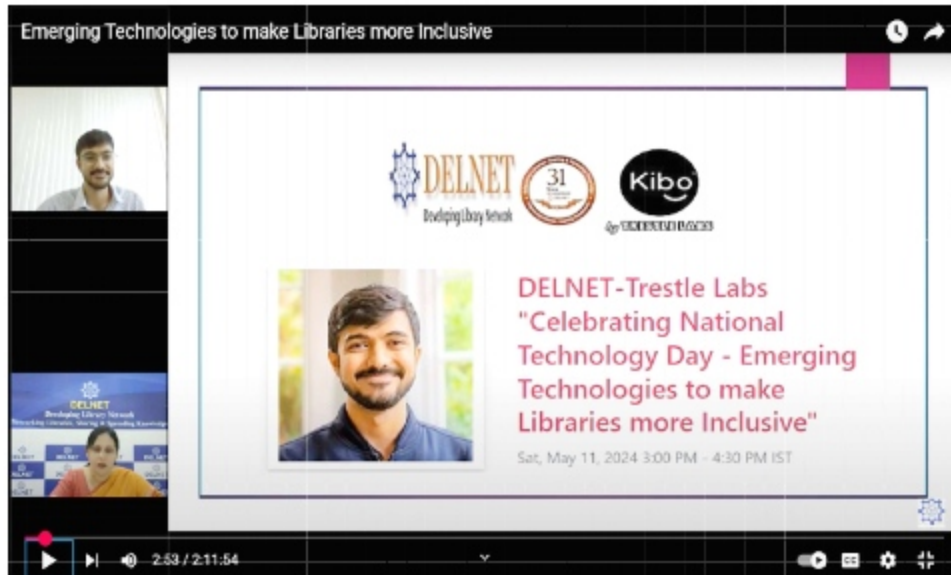
Dr. Sangeeta Kaul thanked Dr. E.S. Shamila for her impressive presentation. ■

The Video Recording is available

at

<https://www.youtube.com/watch?v=vbAIETdXaTo>

Celebrating National Technology Day: Emerging Technologies to Make Libraries More Inclusive



DELNET in collaboration with Trestle Labs, Bengaluru celebrated National Technology Day by organising online an empowering programme on "Celebrating National Technology Day: Emerging Technologies to Make Libraries More Inclusive" on May 11, 2024. Mr. Bonny Dave, Co-Founder, Trestle Labs was the speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET, extended a warm welcome to the speaker and everyone who had joined the session from different parts of India and many other countries across the globe.

In his presentation, Mr. Bonny Dave highlighted how inclusion is extremely crucial for the growth of the library ecosystem and institutions at large. He focussed his presentation around three key areas: first, an exploration of inclusion—why it matters, their core work at Trestle Labs, and how they are driving the inclusion movement with impact at its core by leveraging technology and AI; second, a discussion

on how the library community and its ecosystem are evolving in response to emerging technologies like ChatGPT and AI; and third, a live demonstration of specific programming languages. He highlighted that the journey of Trestle Labs started in 2017. He shared his profound experience of volunteering at a blind school where he built a product that can convert digital text into braille output and kids were thrilled with it. He believed that his interaction with those kids stayed with him and he joined a social innovation centre where he got a chance to leverage his skills to build something that adds value to people's lives. He believed that intent is extremely valuable to bring an impact. He quoted the Cambridge dictionary definition of inclusion which states the act of making someone or something part of something larger. He highlighted that the larger objective of inclusion is to make small efforts to bring education and accessibility for all. He said that inclusivity has a snowball effect that directly translates into job opportunities, progress and merit

in institutions. He gave a beautiful example of a university in the US where all the faculty members of the institutions know American sign language. He explained how universities have adopted inclusion and how their intent-driven step translates directly at the highest level in which the country operates. He further elaborately described a library and information network as a dedicated space within a college or university campus that serves as a hub of knowledge and information. He emphasised libraries as a hub wherein one can have regular sessions of preliminary basic learning courses. He highlighted that the requirement for well-trained sign language interpreters in the market is exorbitant. He mentioned that the adoption of sign language, and real-time live transcription of sign language even in mainstream media will increase at the highest level. He talked about the IPL series this year where they had a sign language interpreter and people can watch IPL through sign language.

Mr. Dave highlighted some of the screen reading software that visually impaired people can use for operating a computer system. He mentioned that there is a layer of tech that enables access to content that was previously inaccessible. According to him, this layer of technology enables to unlock the potential for the people who previously couldn't access content. He further stated that the Indian education system also underlines equitable and inclusive education for persons with disabilities. At the central ministry level, he referenced UGC guidelines that address library services for persons with disabilities. He also discussed NAAC's emphasis on assistive technology products within library ecosystems to enhance accessibility for individuals with disabilities. He shared an inspiring story of a young girl who lost her eyesight in the first year of college. He told them that

being a late blind girl she couldn't learn braille therefore they digitised her books and gave them to her for her further study. This he revealed was the genesis of Kibo which is an acronym for 'knowledge in a box'. He emphasised that Kibo does four things - it scans any printed, handwritten or digital content, translates it into the language of your choice, digitizes it in searchable accessible formats and audiotapes it in the form of an MP3. He further added that Kibo does all of this in 60 global languages including 30 Indian languages. He demonstrated that Kibo as a platform has two products - the Kibo XS Kit and Kibo 360 Kit. He informed everyone the basic difference between them is Kibo XS kit can scan only hard copies while the Kibo 360 Kit can scan hard copies as well as upload soft copy documents. He further spoke on a third vertical in which they equip and empower libraries or institutions to undertake large-scale digitisation and translation projects. He mentioned that Kibo is a patented technology stack and is quite different from Google Translate or AI Google Documents. He explained that Google Translate gives no output for scanned PDFs. Another point, he noted is that Google document would retain it as an image while Kibo makes it completely accessible. He gave a demo of how Kibo makes a document not just accessible to visually impaired persons but also makes it searchable. He also added that Kibo supports handwritten text as well. He opined that this is the strength of technology with the right intent in the right place which unlocks immense potential. He stated that their competitive advantage is that they support 80% of global world spoken languages, support handwritten text and their ability where users can type, scan, upload anything and get an audiobook right at their fingertips.

Mr. Bonny Dave emphasized that Kibo has empowered thousands of individuals and students on their journey. He shared inspiring stories of how Kibo has helped break stereotypes and unlock countless opportunities for them. He stated that since 2019, they have empowered over 600 institutions and 100,000 individuals across 25 countries to foster greater inclusivity while partnering with distributors worldwide. He proudly shared that Kibo has made the Indian Parliament Library inclusive and also working with the government of Karnataka to deploy Kibo in 2000 rural libraries. He opined that Kibo stands as a true beacon of how an inclusive product should function. He highlighted that their organisation has been recognised nationally and internationally. He mentioned that they had received a national award for best R&D and innovation – National Startup Award.

Mr Bonny Dave showed a live demonstration of Kibo. He shared how to connect a Kibo to a PC or laptop and place it in a soft mat so that the edges of the mat can be seen from the top. He mentioned that they have visually impaired IAS officers who use Kibo to access their day-to-day office documents independently. He stressed that we do not have to install any special software on our system for Kibo. He showed a demo for Kibo 360 as it has all three modules. He highlighted all the features and showed how it even works in a larger document. He explained that its core technology integrates seamlessly, automatically detecting languages, demonstrating how technology can drive meaningful advancements. He demonstrated how it can simply process a document, and a person can directly listen to the output. He also illustrated the digitized part converting it into PDF and

making it searchable. He moved ahead to show its ability to download it in editable format, convert it into audio MP3 and generate our audiobooks. He highlighted that the document could be saved in the Kibo cloud and shared it with everyone. He showed how it can also be used as a magnifier for low-vision students. He further explained how Kibo can translate any document on the go.

Mr. Dave passionately announced their collaboration with T-Series and the movie Srikanth, which beautifully captures the inspiring journey of Srikanth Bolla, a visually impaired entrepreneur, portrayed by Rajkumar Rao. He highlighted the real-life story of Srikanth Bolla who aspired to study Engineering in Indian Institutions but was denied, eventually went to MIT in the US, and started his startup, Bollant Industries. He opined that this story has a close resonance with the message that they want to tell the world. He went on to share that during the Kibo Karnival, they launched a campaign encouraging institutions and library professionals to take a pledge for inclusivity.

Mr. Bonny Dave concluded his presentation by emphasizing that with the right intent, collective efforts can drive meaningful impact. The presentation was followed by an engaging question and answer session.

Dr. Sangeeta Kaul expressed her gratitude to Mr. Bonny Dave for his enlightening presentation. She concluded the programme by sharing that DELNET is developing a special portal for Divyangjan, addressing 21 disabilities as outlined in the National Disability Act. She expressed her eagerness to collaborate with Trestle Labs to bring this transformative technology closer to institutions. ■

The Video Recording is available at
<https://www.youtube.com/watch?v=PDUVkgqLJVg>

Knowledge Graphs: Connecting Information Over the Semantic Web



A Webinar on “Knowledge Graphs: Connecting Information Over the Semantic Web” was organised by DELNET on June 21, 2024, in collaboration with Atlas Skilltech University, Mumbai and IEEE Computer Society, Madras Section. Ms. Garima Gujral, taxonomist and subject expert in E-commerce was with the eminent speaker for the session. She is an Ontologist at Amazon, Germany.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to the speaker and attendees. The session was attended by 691 participants from India and abroad.

Dr. Manju Kalita, Chief Librarian, Atlas Skilltech University, Mumbai extended her heartfelt gratitude to Dr. Sangeeta Kaul for the opportunity to engage in the wonderful collaboration. She then moved ahead and introduced the

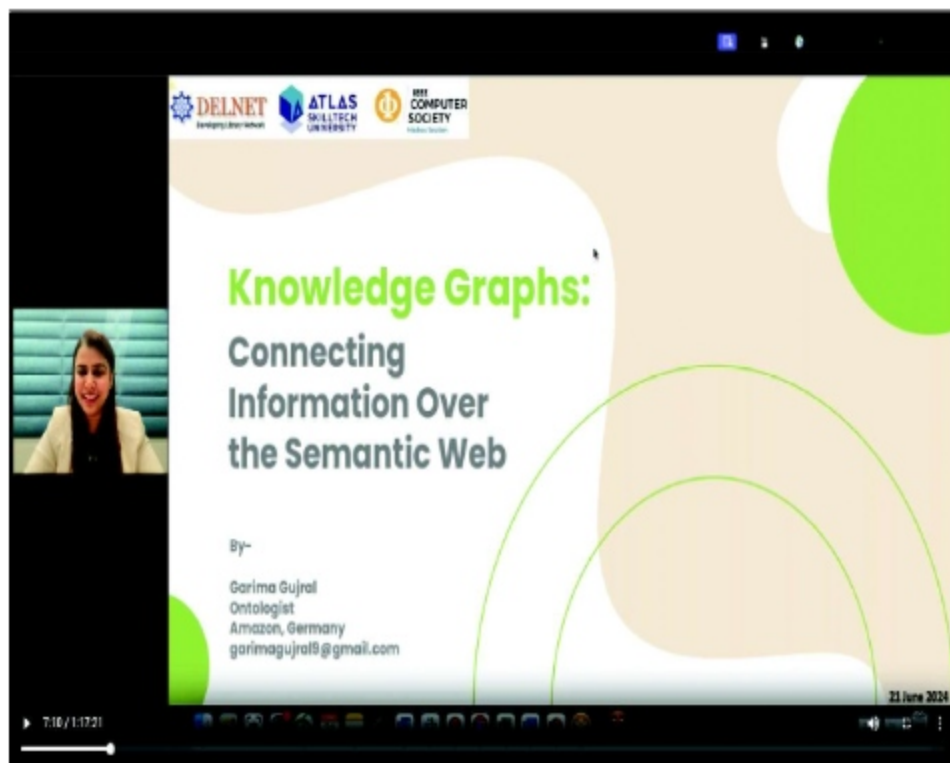
distinguished resource person Ms. Garima Gujral. She highlighted that Garima Gujral is a taxonomist, ontologist and subject expert in E-commerce taxonomic design and governance.

Ms. Gujral began her presentation with a brief background and history of the web followed by an introduction to knowledge graphs, key characteristics, components of knowledge graphs, applications and use cases, building knowledge graphs and best practices and challenges, and future trends and way forward. She highlighted the different steps of data processing that include data collection, data preparation, data visualisation, data analysis and data storytelling. According to her, data storytelling has different perspectives for different people. She explained how in our daily interactions we come across some information or data and we process these data based on our capacities, and past experiences and

make some decisions. She further mentioned that knowledge is perceived by different persons in different ways and said that the whole buzz around AI is in training the machine or computer to replicate the thought process and knowledge of humans.

Ms. Gujral illustrated how the history of the web can be traced back from the static basic web screen to the more interactive dynamic web and then followed by the semantic web which has innumerable features like AI integration, Chatbots and LLMs and can perform complex functions and understandings. She gave a glimpse of the basic Web 1.0, then moved ahead with a more complex structure which offered search query results in terms of advertisements and spelling errors. She further talked about the more complicated version of the web where we have separate options. She then proceeded to explain the present web where one does not only get the basic search but also connects different aspects that gives an overview of the query. She mentioned that the present web also provides a myriad of background recommendations by picking up on data points, demographics, age and so on. She explained today's web structure with interesting queries like Albert Einstein, and Leonardo da Vinci and showed the different results that the web provided based on these queries. She also demonstrated different linkages of all the data points of the queries and mentioned how much our brain is capable of linking a particular thing and various aspects of it and a machine replicates the same. It needs human intervention to define those relationships.

Ms. Gujral stressed the importance of a structured format of data to cater for the humongous growth of the web. She mentioned that even while managing large libraries on a day-to-day basis, we all need a classification system



with particular metadata points like the author, publisher, editor, kind of book, hardbound or paperback just like the web. She talked about the fixed standards of the web which are defined in terms of triples i.e. subject, predicate and object. She explained the formal definition of knowledge graphs as graph-based data models representing knowledge entities and the relationship between them. According to her, knowledge graphs are more than visualisation as they capture complex relationships, and meaning behind these entities and can support advanced applications and recommendation systems on an everyday basis. She said that knowledge graphs facilitate both structured and unstructured information and explained it with the example of different profiles getting different recommendations based on their search patterns. She simplified the process by explaining it in different layers and began with the content and data layer, then moved to the graph layers that have all triples. She further

talked about the conceptual and linguistic layers. In this layer, she emphasised the conceptual and linguistic way a query is referred to. The last layer she highlighted is the semantic AI Application layer where the query is defined by its meaning and resembles a human brain. She touched upon the key characteristics of knowledge graphs and mentioned that knowledge graphs are some graph-based neural networks that give us a structured representation of concepts. She talked about the interconnected data and interconnected data silos which connects every entity. She said that knowledge graphs are highly scalable and flexible and facilitate advanced analytics and further stated that they support AI and ML more and more with tools like ChatGPT or LLMs. According to her, knowledge graphs are dynamic and ever-evolving. She then mentioned that knowledge graphs give visualisation that makes it easier for us to understand and further gave a glimpse of the different aspects of knowledge graphs that included both explicit and tacit knowledge.

Ms. Gujral talked about the history of Knowledge Graphs and mentioned that knowledge graphs were first initiated formally in 1982 in Netherlands which was followed by Resource Description Framework (RDF). She then moved on to the most popular semantic web by Tim Berners-Lee and the first knowledge graph which was introduced by Google in 2012. She further pointed out that in 2018 the first GQL manifesto was published which served as a blueprint for information professionals. She further gave another simplified classification scheme for knowledge graphs where she created a parent-child relationship. She illustrated how taxonomy is not universal and does not have a typical standard. She gave the example of how libraries evolved from books to hundreds of E-books or electronic resources.

Ms. Gujral illustrated some of the key functions of knowledge graphs. She highlighted the following functions of knowledge graphs—unifying structured and unstructured data, fabricating knowledge more collaboratively, easier search and retrieval and finally enhanced user or customer experience. She emphasised the search and retrieval and believes that it is a core function that library and information professionals need to take into account. She gave three examples of knowledge graphs that have been implemented in libraries. The first example she mentioned is WorldCat which is the largest library catalogue. She explained that WorldCat is implemented based on knowledge graph links, authors, works, subjects and library holdings and provides an interconnected view of library resources. She further pointed out the benefits of WorldCat including enhanced discovery of resources, improved cataloguing and provide a better user experience. While talking about Stanford libraries and Europeana Think Culture, she highlighted that they use knowledge graphs for their vast collections and to

integrate metadata from various cultural heritage institutions. She further stated that the British Library has also adopted knowledge graphs and all the E-learning platforms are built on knowledge graphs. She gave an example of a LinkedIn graph that connects various aspects of job searching and then listed a few popular tools for creating knowledge graphs. According to her all the tools she mentioned such as Protégé, and Neo4j have easy self-learning modules and videos available on YouTube.

Ms. Gujral explained ten steps that one needs to keep in mind to build knowledge graphs. The steps include- identifying the needs and requirements of the user, collect and analyse data, data cleaning, creating semantic data models, data integration, data alignment, developing data architecture and search layer, increase usability and knowledge graph maintenance and governance. She then shared some of the best practices of knowledge graphs. According to her, we should always start small and scale gradually by prioritising use cases. She further talked about developing and testing prototypes, identifying a target audience and adopting agile practices. Another point which she emphasised is understanding data and synchronising it universally. She further explained the life cycle of a knowledge graph which has user loops, automation loops and expert loops. She mentioned that these three loops are interconnected and keep working together. She further highlighted three phases during the implementation of knowledge graph links- foundation, evaluation and integration phase. She further pointed out a number of challenges that come up or arise while implementing knowledge graphs. These challenges involve complexity issues while handling large datasets, keeping up with the ontology design, handling uncertainties, privacy and security concerns, user adoption and training. She mentioned that the way to move forward is continuous learning,

autonomous knowledge graphs and automatised of the process as resources are growing enormously.

Ms. Gujral concluded her presentation by stating that knowledge graph integration is a collaborative process that involves not just information professional owners but also needs insights from the users and then follow those insights to get better.

The presentation was followed by a

question and answer session. Ms. Gujral graciously answered all the queries of the participants.

Dr. Sangeeta Kaul thanked Ms. Garima Gujral for her exceptionally brilliant presentation. She believed that her presentation speaks volumes about her commitment and outstanding work. She also thanked Dr. Manju Kalita for her support and hoped for more such enlightening collaborations. ■

*The Video Recording
can be viewed
at*

<https://www.youtube.com/watch?v=aOVz-fc0FO8>

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I, Dr. Sangeeta Kaul, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Dr. Sangeeta Kaul
Publisher

Dr. H.K Kaul Memorial Lecture - 2024

Data Protection and Data Privacy



The 4th Dr. H.K. Kaul Memorial Lecture 2024 on "Data Protection and Data Privacy" was organised by DELNET on July 1, 2024. Major Vineet Kumar, Founder and Global President, Cyber Peace Foundation was the esteemed speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Major Vineet Kumar and all the esteemed dignitaries and library professionals who had joined the session from different parts of India and across the globe.

Major Vineet Kumar expressed his gratitude for the opportunity to deliver the Dr. H. K. Kaul Memorial Lecture 2024, emphasising his strong bond with the late Dr. H.K. Kaul and DELNET.

In this presentation, Major Vineet Kumar provided deep insights into cybersecurity challenges faced by academic institutions and the steps needed to mitigate cyber threats. He discussed CyberPeace's research initiative with 11 universities across India, assessing their cybersecurity challenges. He exclusively mentioned about the key challenges faced by

institutions, including a lack of awareness about cybersecurity threats, outdated technology, limited financial and human resources, and a shortage of skilled personnel. He also highlighted how AI and Machine Learning are increasingly influencing cybersecurity.

Major Vineet highlighted the E-Saksham project being launched in collaboration with AICTE, which aims to train 5 lakh students, educators and library professionals in cybersecurity. He also mentioned that many institutes are introducing short and long-term cybersecurity courses to build expertise in the field. The presentation mainly focused on the misuse of technology, particularly how cybercriminals leverage AI and Machine Learning to defame institutions. He focused on a project with Shah & Anchor Kutchhi Engineering College, Mumbai where they set up a sensor mimicking a fake network with extensive research data to attract black-hat hackers. He highlighted that the initiative captured real-time cyber-attacks, revealing 27,886 cyber-attacks with 8,337 unique usernames and 54,783 brute-force attack attempts. He also identified the top countries from where these cyber-

attacks were made which included the United States, China, South Korea, Brazil and Russia.

Major Vineet spoke about their collaboration with Resecurity, a platform for cybersecurity solutions to analyze cyber threats targeting universities. He revealed that their findings indicated that most institutions fall under a poor risk rating, with the majority in Category D and a few in Category C. He believed that this is a great challenge where we need to pause and strengthen our networks. He talked about the significance of the 'Bring Your Own Device' (BYOD) policy wherein students and faculty have necessary safeguarding and security controls deployed on their devices. He further pointed out that threat landscape studies revealed 3,93,518 data breaches and 3,39,442 botnet activities. He highlighted key findings, noting that data breaches accounted for 52.6 per cent, bot activities for 45.4 per cent, dark web activity for 1.1 per cent and phishing and domain related threats for 0.9 per cent. He talked about some common threats - Phishing, Malware and Ransomware. He appealed to the participants to be extremely careful with any interaction with any kind of links, messages or E-mail. He further mentioned that they are conducting an in-depth research on deepfake technology and its spread across India and various regions. He mentioned that they have developed a tool named "Trust Trace" which is a multimedia deepfake detection platform where people can report if they come across any such deepfake videos. He suggested another effective handy tool, "Google Reverse Image Search" where one can simply check if the photograph is fake or not. He emphasized that as technology users, we should also act as first responders, equipped with the skills to detect and verify whether information is genuine or fake.

Major Vineet illustrated some of the best practices that institutions should adopt to strength accurate results-

cybersecurity. He emphasized the importance of keeping software updated, applying security patches promptly, and enabling automatic updates for consistency. Expressing concern over the growing number of digital devices such as CCTV cameras, smart TVs, and voice assistants, he warned that these could pose security risks if not connected to secure networks. He urged institutional heads to conduct regular cyber hygiene checks, ensuring all devices remain protected. He further suggested that the Institutions should install an antivirus and anti-malware solution in the form of endpoint security products in their networks and wi-fi networks that everyone is using. He recommended everyone to utilise a UTM like CISCO or Sophos at the institutional level and monitor these systems. He asked everyone to apply network security with firewalls and secure WiFi networks. He mentioned that WiFi Protected Access 3 (WPA3) is one of the latest and most secured encryptions. He said that if WPA3 is not available, we can go for WPA2 and avoid Wired Equivalent Privacy (WEP). He strongly advised against using open public WiFi networks at airports and hotels. However, if necessary, he emphasized the importance of using a Virtual Private Network (VPN) for added security. While talking about wireless settings, he emphasised on passwords that are not easy to guess and break and that have a mixture of uppercase, lowercase, special characters, and numbers. He also encouraged everyone to keep an easy-to-remember phrase as a password. He then moved on to remote access and asked everyone to use a VPN and recommended Proton VPN. He stressed the importance of regularly backing up critical data and systems, storing them in secure offsite locations or on the cloud, and testing the backups consistently to ensure their reliability.

Major Vineet demonstrated a few steps to maintain a strong password policy.

He asked everyone to use different passwords for different online accounts. He highly recommended using multi-factor authentication. He spoke about G Suite where they are using two-factor authentication along with a hard token. He mentioned that these tokens are effective, cheap and can be connected to Gmail and other social media accounts. He opined that security implementation and review of the security implementation are extremely important to monitor the activities of the account. He explained how one can use the lockdown mode to secure extremely sensitive data in WhatsApp. He also highlighted the privacy check and sensitive content warning features that detect explicit videos and photos and help in making a safe choice. He asked everyone to be aware of the linked devices, especially for the WhatsApp for Web feature. He also emphasised developing an 'Incident Response Plan' with a standard operating procedure and, the right SOPs in place and testing those plans at regular intervals.

He talked about the significance of Cyber Insurance and recommended institutions to take this policy for potential loss resulting from cyber incidents, including data breaches and ransomware attacks.

Major Vineet Kumar suggested all the institution's heads to empower their workforce with cybersecurity training. He also listed some pertinent measures to enhance cybersecurity that encapsulate – awareness, investing in technology, conducting regular audits, incident response plans, and government initiatives like NCIIPC (The National Critical Information Infrastructure Protection Centre). He further explained the rules and regulations of how crimes related to a particular platform can be reported. He mentioned that if there is any crime against women like stalking, or bullying, then one must report it to the National Commission for Women (NCW)

while in case of crime related to children like sexual abuse report to the National Commission for Protection of Child Rights (NCPCR). He highlighted the important guidelines on Breach reporting. He further explained the Digital Personal Data Protection (DPDP) Act which includes compliance requirements, data security, the appointment of a data protection officer, data localization, penalties and compliance.

Major Vineet illustrated key guidelines and requirements for data collection practice and consent. He mentioned that libraries and universities should collect personal data for legitimate purposes and data collection practices should be transparent. He also emphasised the data subject, technological measures, network and identity security rights, third-party and outsourcing security rights, data privacy and privacy rights. He further asked everyone to remain beware of the online shopping scams. He highlighted that every social media platform has to comply with security, privacy, safety and well-being features and everyone should enable the security settings to ensure cyber hygiene and cybersecurity. He recommended everyone to subscribe to their YouTube channel "CyberPeace TV" and join the First Responders Programme to counter the challenges of Cybersecurity.

Concluding his presentation, Major Vineet stressed that cybersecurity is a collective responsibility, requiring everyone's participation to create a safer online space. The session ended with an engaging question-and-answer segment, where he eloquently addressed participants' queries.

Dr. Sangeeta Kaul profusely thanked Major Vineet Kumar for his insightful session and for delivering Dr. H. K. Kaul Memorial Lecture 2024. ■

The Video Recording is available at
<https://www.youtube.com/watch?v=Sh5kwccVlkk>

Mastering the Data Paradox



A Book Talk on "Mastering the Data Paradox" was organised online by DELNET on October 5, 2024. Mr. Nitin Seth, Co-Founder & CEO, Incedo Inc., eminent author was the speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Mr. Nitin Seth who had joined online from USA and other participants. The session was attended 154 participants from India and abroad.

Mr. Nitin Seth extended his gratitude. He stressed that the most important foundation of the present AI age is data and mentioned that the topic of his book as well as his discussion is how to master data to win in the AI age. As the title of his book suggests, he believes that data is a paradox as on one hand data has a deluge and on the other, there is a drought in terms of insight. Another crucial factor about data which he pointed out is that data is extremely vast, and it means different things to different people.

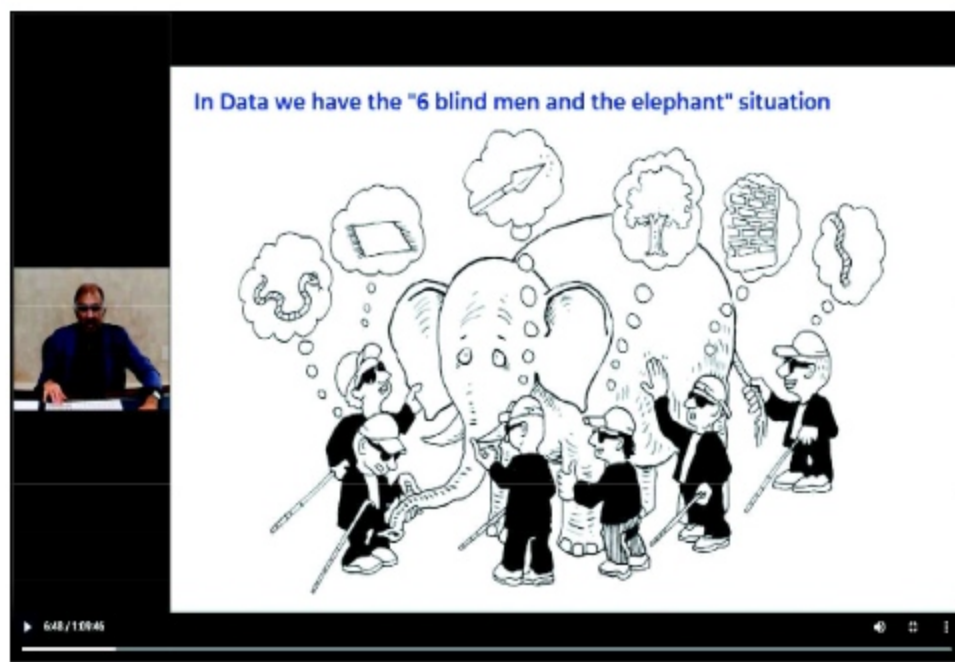
Mr. Seth gave a brief overview of the

digital age as AI and data are all part of the digital age. He emphasised the incredible trifecta or holy trinity that involves digital, data and AI and spoke about how to create value from data. He also talked about data paradox and a few deep dives into unified solution frameworks (USF) from the perspective of enterprises or business aspects. He further added that whatever is true for business enterprises is also true for the individual and society, i.e. the microcosm and macrocosm. According to him, digital is a set of trends that started with digitisation of moving from physical to digital. He explained how the Internet wave transformed into a dot com boom and with the dot com boom emerged many innovative technologies like social media, mobile, analytics, and cloud often called the SMAC era. He mentioned that these technologies moulded into a digital ecosystem that includes E-commerce players like Amazon, Flipkart, Paytm, PayPal, ALB, and Uber. He added all these technologies have resulted in the sheer explosion of AI, Blockchain, IoT, and Quantum Computing and believes

that digital is an ever-expanding envelope that keeps growing. He said that AI is the most profound manifestation of technology that we have ever seen in the history of mankind. He gave a quick recap of his previous book *Winning in the Digital Age* where he highlighted that trillions of dollars are spent every year on digital transformation, but 70-80 per cent of these digital transformations fail. According to him, this happens because in the digital age, the fundamental assumptions have changed but there has not been much change in management strategies.

Mr. Seth described the digital world with the concept of VUCA which is an acronym for volatile, uncertain, complex, and ambiguous. He referred to the Covid times as an example of VUCA as people could not decipher how and why it happened. He talked about six major shifts ongoing in the world that everyone needs to understand. The first shift he pointed out is customers as they have become more demanding, less loyal and have become God. He then moved to the second shift, i.e. technology. He believes that technology is driving the strategy rather than just being a support function. The third shift he mentioned is velocity and spoke about how business and product cycles are becoming shorter. The fourth shift that he accentuated is data. According to him, data is changing the way people view business today. He then explained the fifth shift, i.e. iterative. He maintained that the digital world is the world of rapid experimentation, different management and does not move linearly. The last shift he talked about is that the nature of work is not interdisciplinary as the business world is driven by customers.

Mr. Seth affirmed that we are living in an extraordinary era of evolution where we have seen 200 general innovations that include fire, wheel and so on. He believes that AI is the most significant among



these 200 innovations and the key driver of AI technology is the unprecedented remarkable explosion of data over the last two decades. He showed the graph diagram of his core research which demonstrated that the world population has grown by 30 per cent, the number of cars has doubled, the world GDP has grown 3 times, the internet has grown 3 times, but data has grown 100 to 150,000 times. He said that the growth of data is spectacular but disproportionate and stated that in the last two years, we have generated 90 per cent of data from the world. He explained the three dimensions of data – volume, velocity and variety. According to him, data powers everything and hence it is important to understand the trifecta – data, AI and digital. He explained how digital, data, and AI are highly intertwined with each other seamlessly feeding into and enhancing others and mentioned that big data has completely transformed opportunities for businesses.

Mr. Seth talked about the structured approach for unlocking the value of data and proposed the framework of

Data Insights Action Impact (DIAI). He explained the different stages of this framework starting with Insights which can be of four natures – descriptive, diagnostic, predictive and prescriptive. He further explained how from insights we get to actions. While talking about actions, he observed that actions can be strategic, i.e. long term or operational i.e. short term. He then mentioned that these actions have an impact on the company which can be from the customer side or internal business operations or combining the two to develop a new business model. He then described one of his critical research which depicted that only 15 per cent of data that an enterprise collects is used. He further added that of this 15 per cent only 3-10 per cent is used for any kind of analytic or insight generation, 5-20 per cent of analytical reports get into any kind of production action and only 8-20 per cent models deliver business impact. He stated that the amount of data from which potential impact is realised is just 0.01- 0.4 per cent.

Mr. Seth described three primary problems of organisations struggling with data paradox. These problems are – data initiatives cost too much and take too

long, teams do not have the data they need and teams are not effective with the data they have. He further talked about the 9 root causes of data paradox which reveal that organisations have a disproportionate focus on solving physical issues. He believes that the solution is that organisations should have a logical approach to what problems they are solving and what data is needed for that problem-solving.

He gave an elaborate description of his Unified Solution Framework (USF), a structured and practical approach to dealing with data paradox. He demonstrated that the first step is defining the business problem and breaking it down. In the next step, he highlighted the three types of data – multi-source data, real-time data and proprietary data. He then moved on to technology infrastructure often called a modern data stack. The next step he pointed out is core processes that include agility, data democratisation and security. He emphasised data democratisation which means that the explosion of data is more aligned to democratisation and believes that data security is the biggest threat to the data revolution. The last step as he mentioned is organisation and culture. He explained that this step reflects on organisation alignment, data culture and data talent and further affirmed that these insights can be applied to individuals and society as well. He showed a diagram that demonstrated how enterprise-level paradoxes are applicable at an individual level.

Mr. Seth emphasised the concept of hyper-personalisation. He explained how the trifecta of Data, Digital and AI is driving hyper-personalisation at scale. He gave the example of how applying the notion of hyper-personalisation in education can have a tremendous impact. He then shifted to the macro picture where he discussed how data sharing can help to solve some of the biggest problems. He said global data collaboration is the biggest

opportunity for India and further pointed out that with data collaboration, everyone must be aware of data colonisation. He mentioned that global power has changed with every industrial age. He strongly believes that AI and data are going to be at the heart of competitive advantage in the present stage of the Industrial Revolution. India has a good chance of leveraging its position by using data and AI to its advantage. He also touched upon the concept of Generative AI and mentioned that generative AI has provided a way to tap into the data of the world which is equated to Wisdom of Crowds or Universal Consciousness. He further pointed out that this generative AI data needs to be contextualised by traditional AI. He highlighted that the world of AI has three distinct layers- Macro Layer, Enterprise Layer and Individual Layer and the real magic will happen when all three layers come together. He gave a glimpse of the fascinating resemblance between Indian Knowledge Systems specifically the Yoga Sutras with the emerging world of Data and AI.

Mr. Seth shared that in his journey of writing this book, he realised that "Life is data and data is life". He gave five simple principles that are relevant to both data and life. These principles are – do not avoid technology, make it a friend, master the paradox by finding the right balance, start with an end but be open to change, less is more and as is microcosm so is macrocosm, as is macrocosm so is microcosm. With these inspiring principles, he concluded his presentation.

The presentation was followed by a question-answer session. Mr. Seth graciously answered all the questions. Dr. Sangeeta Kaul thanked Mr. Nitin Seth for his enlightening presentation and hoped that his words of wisdom would inspire the participants to read his remarkable book *Mastering the Data Paradox*. ■



DELNET-Developing Library Network

JNU Campus, Nelson Mandela Road,
Vasant Kunj, New Delhi 110070
Web : www.delnet.in

DELNET Guest House at JNU Campus, New Delhi



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- | | |
|---------------------|----------------------------|
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- | | |
|---|--------------------|
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- | | |
|---|--------------------|
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- | | |
|---|-------------------|
| (Rate per committee room) | |
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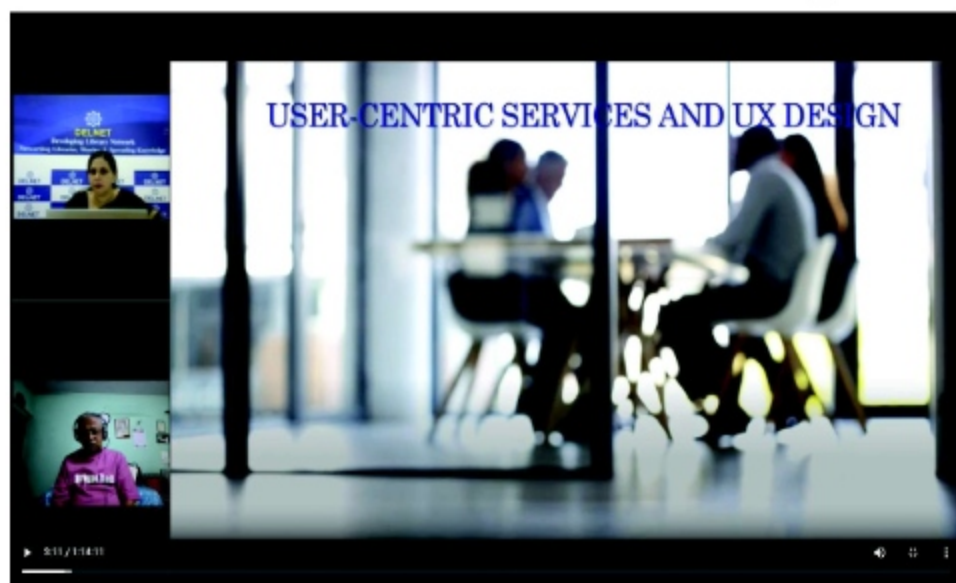
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JNU Campus, Nelson Mandela Road, Vasant Kunj, New Delhi 110070
Tel: 011-26741302, 26741305, 26741122, 9810329992, 8512072625
Email: delnetguesthouse@delnet.in | sangs@delnet.in

User-Centric Services and UX Design



A Webinar on "User-Centric Services and UX Design" was organised by DELNET on October 26, 2024. Dr. Shantanu Ganguly, Director (Library), Ashoka University, Sonipat, Haryana was the distinguished speaker of the session.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to the speaker and all the attendees. The session was attended by 562 participants from India and abroad.

Dr. Shantanu Ganguly started his presentation by highlighting a powerful quote by Alvin Toffler which states that the illiterate of the twenty-first century will not be those who can't read and write but those who cannot learn, unlearn and relearn. He explained that through this presentation the participants would be able to learn something, unlearn something and then relearn something else. He mentioned the discussion points of his presentation that encapsulated UX Design and its importance, Design Thinking, Octalysis Framework and Gamification and a case study. He talked about his interactions with various library stakeholders from different sectors he was involved with in his career. According to him, the four

major pillars of his profession are Content, Context, Technology and Service. He talked about how he transitioned his role as a library professional while working for different sectors. He emphasised healthcare while working at AIIMS, sustainability while working at TERI and interdisciplinary subjects in his current role at Ashoka University. He believed that it is extremely important for library professionals to cross the border and see what is happening beyond the library block. He further mentioned that users cannot be 100 percent satisfied. There is always a scope for improvement and the most important thing needed in today's library context is a transformation strategy. He explained how he started working on building a library strategy handbook. He said that this strategy is focused on the user's perspective and is based on the four components, i.e. content, context, technology and service as mentioned earlier also.

Dr. Ganguly illustrated the importance of reengineering our vision to provide the best to the stakeholders. He mentioned that listening to the voices of the stakeholders and users is primary to make any radical change in content, context, technology and service and believed that the user-centric approach is

at the core of this transformation and user feedback that drives continuous improvement. He suggested that empowering the frontline workers is extremely important as they have to make decisions and address the requirements of the stakeholders. He stressed customer-focused leadership and discussed the pertinent factors of the strategic planning for organisational transformation which he developed for Ashoka University. These factors include engagement models, organisational effectiveness, execution, borderless impact, and culture. He talked about the importance of building a strategy that would work as an eye-opener even after 50 years and stressed that library professionals should be SMART. He defined the acronym SMART as Sustainable, Measurable, Achievable, Reliable and Transformational.

Dr. Ganguly suggested that library professionals should be game changers in today's fast-paced world. He explained 10 ways to change the game and provide a structure for the programme. This way involves — Thinking, Exploring, Disrupting, Inspiring, Designing, Resonating, Enabling, Mobilising, Sustaining and Amplifying. He focused on creating a digital experience for users and maintained that if librarians can change the reach and speed of their services they can change the scale of users too. He explained that in the digital era, the habits of the users may change but their interests and needs are similar and hence it is imperative to understand the expectations of the users. He identified five thrust areas that will help library professionals to find opportunities and detect threats. The first area that he highlighted is Content. He said that it is important to identify the client's purpose or mission. The second area he mentioned is speed where clients expect reaction capacity in terms of action and communication. He moved on to the third area, i.e.

transparency. He observed that this area involves detecting and correcting the error before the client does. The fourth area he emphasised was innovation. The last area he pointed out was performance which can be measured and corrected at every level. He then highlighted Gensler's Report that found that libraries are more people-centric than collection-centric and enumerated some significant parameters for high-ranking libraries.

Dr. Ganguly discussed another interesting concept known as UX Design. According to him, UX is a part of design thinking as an approach and a mindset. He explained that design thinking is a creative approach that will help to design meaningful solutions for the library. He mentioned that design thinking exists at the intersection of three factors: desirability, feasibility and viability. He said that innovation happens when the solution is desirable, financially viable and technologically feasible. He affirmed that the user-centric design as a development of new technology is based on five components, i.e. transforming the access and process of information, adapting to the environment, communication, problem-solving and work. He pointed out that the most important aspect of user-centric design thinking is to educate, innovate and create. He illustrated that design thinking is a concept that has solution-focused thinking and is based on two components, divergent and convergent thinking and elaborated that convergent questions start with pieces of information to bring out solutions, while divergent questions start with a prompt to provide multiple solutions. He further highlighted the fundamentals of design thinking which is based on the following components: Empathise, Define, Ideate, Prototype, Test and Implement. Dr. Ganguly elaborately explained the process of design thinking. He mentioned that the process involved

learning about the audience (Empathise), constructing a viewpoint based on the user's needs (Define), brainstorming to come up with creative solutions (Ideate), building representations of the ideas (Prototype), and finally testing the ideas (Test). He also referred to two phases of design thinking, i.e. inspiration phase and the ideation phase. According to him, designing thinking is characterised by integrating professional knowledge and experience from different disciplines to help teams work together to develop feasible solutions. He added that it focuses on the user's needs and deconstructs complex problems.

Dr. Shantanu Ganguly shared an interesting case study done by the National Taipei University of Technology (NTUT) in Taiwan. The case study is based on in-depth research in UX for libraries. He pointed out that the prime objective of the study is to integrate children's cognitive mapping behaviour and the library's thematic categorical knowledge framework to construct a virtual real integrated interface level plan. He mentioned that the team was divided into two groups, A and B and both groups were given 6 weeks to brainstorm through a design thinking process developed by IDEO. He said the process involved five steps empathising with the target audience, creating specific directions for future work, producing new ideas, using material and tools and finally asking users to test the prototype to collect real reflections from the users. He highlighted that the Group A Children's Library developed a navigation design as a venue for information communication and dissemination and provided a virtual real integration space for creating an island-themed (Role Playing Game) RPG map by employing Augmented Reality (AR). He then moved to Group B which developed a Gamification Interface Design called Octalysis framework. He

mentioned that the Octalysis framework is an award-winning gamification design framework developed by Yu-Kai Chou and explained that Chou's research depicted how games tap into specific core drivers inherent in people that motivate them to act and commit to certain activities. He further mentioned Chou's eight core drivers: Epic Meaning, Accomplishment, Empowerment, Ownership, Social Influence, Scarcity, Unpredictability and Avoidance. He observed that based on the Octalysis Framework, group B proposed to simplify the children's library navigation for parents and provide a gamified reading experience for children aged 5 to 12 to make reading pleasurable. He further mentioned that group B also came up with a storyboard that showcases the child's progress.

Dr. Shantanu referred to a book titled *Social Physics* by Alex Pentland. He maintained that in this book the author brilliantly explained how ideas can be spread and the importance of acceptance of stakeholders while creating any platform. Another important aspect that he touched upon was sentiment analysis. He believed that in the service industry, everyone revolves around users and library professionals should enhance their services by understanding the sentiment of users. He concluded his presentation with an inspiring quote by Thomas Friedman that says, "Never before in the history of the planet have so many people – on their own – had the ability to find so much information about so many things and about so many other people".

The presentation was followed by a Question-and-Answer session. Dr. Shantanu generously answered all the queries of the participants.

Dr. Sangeeta Kaul thanked Dr. Ganguly for his scintillating presentation. ■

The Video Recording can be viewed at

<https://www.youtube.com/watch?app=desktop&v=H8X8wat0L-8>

Management of Rare and Special Collections and UNESCO Toolkit for Disaster Resilience



An International Symposium on 'Management of Rare and Special Collections and UNESCO Toolkit for Disaster Resilience' was organised by DELNET in hybrid on November 16, 2024. Ms. Makeswary Periasamy, Senior Librarian (Rare Collection), National Library of Singapore (online) and Dr. Heather Brown, Librarian, Sector Standards and Education, Australian Library and Information Association (ALIA) (in-person) were the distinguished speakers of the session.

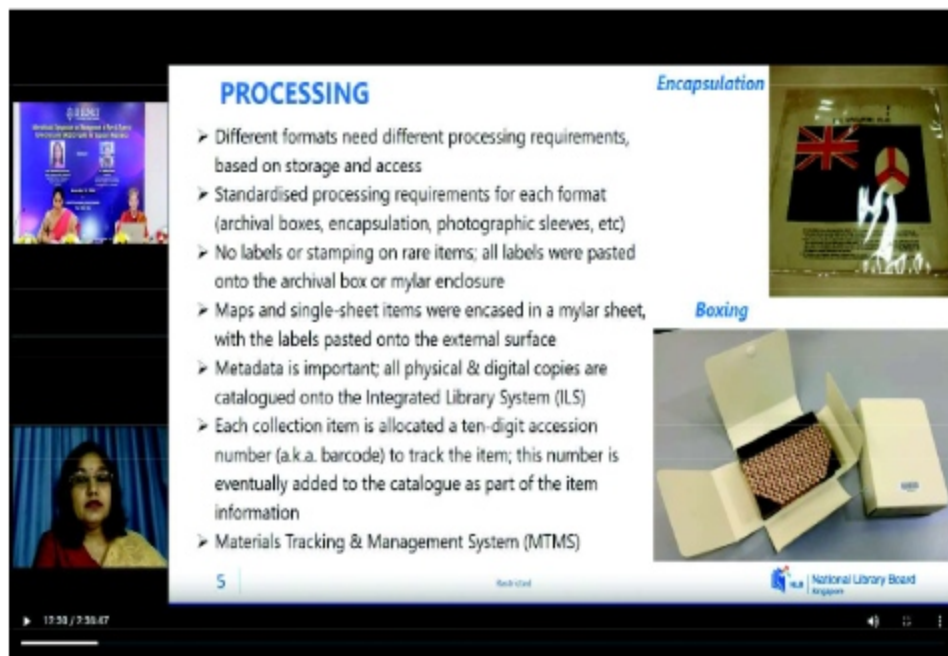
Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Ms. Makeswary Periasamy, Dr. Heather Brown and all the participants. The session was attended by 791 participants online from India and abroad and nearly 100 participants attended the Symposium in-person at DELNET, New Delhi.

Ms. Makeswary Periasamy began her presentation with a historical introduction to the National Library of Singapore. She mentioned that Sir Stanford Raffles mooted the idea of setting up a library in Singapore. She

affirmed that the National Library began as a school library within the Island's first school known as the Singapore Institute and the library was known as Singapore Institute Free School Library. She said that the library converted into a public library known as Singapore Library after receiving many complaints from people about access to the library resources. In 1874 the library merged with a museum and came to be known as the Raffles Library and Museum housed in the National Museum building. She further mentioned that in 1960 the library got its building and was renamed the National Library. She added that it was during this period that the library was made free for the residents of Singapore. She also talked about the National Library Board which manages the National Library, 28 public libraries and the National Archives of Singapore.

Ms. Makeswary gave a brief introduction to Rare and Special Collections. She maintained that the Rare and Special Collections support the twin missions of the National Library of Singapore, i.e. to preserve a national collection and support

the nation's knowledge aspirations. She said the oldest items of this collection were inherited from their predecessor libraries. According to her, the strength of the Rare Special Collection is the coverage of early Singapore materials and its use for research publications and exhibitions. She mentioned that the Rare Collection is the National Library's prime collection and holds the rarest and the most valuable titles that document the early history of Singapore and Southeast Asia. She further said that in 2004, they had about 4,400 items in the rare collection while this year they have over 20,000 items and the collection spans from the 15th century to the early 20th century. She then gave a background on how they started the reorganisation of the Rare and Special Collections at the National Library. She pointed out that during this reorganisation they had access to more resources and funding and could undertake many more activities such as large-scale fumigations, conservation, repair, and digitisation. She mentioned that during that period they also produced a new project to properly sort and reorganise various collections. She highlighted one of the key projects that they implemented, i.e. Preservation, Conservation and Access Project and digitised the rare items which were previously only microfilmed. She revealed that during this project they realised a crucial point that prevention is better than repairing the items. Keeping that in mind they set up proper storage, proper processing requirements for various formats as well as proper handling and access requirements. She further said that they drafted policies and SOPs so that the entire staff were on the same page and referred to the standardised processing guidelines as they realised that different formats require different processing requirements based on their storage and access. She explained that whenever they get new material,



PROCESSING

- Different formats need different processing requirements, based on storage and access
- Standardised processing requirements for each format (archival boxes, encapsulation, photographic sleeves, etc)
- No labels or stamping on rare items; all labels were pasted onto the archival box or mylar enclosure
- Maps and single-sheet items were encased in a mylar sheet, with the labels pasted onto the external surface
- Metadata is important; all physical & digital copies are catalogued onto the Integrated Library System (ILS)
- Each collection item is allocated a ten-digit accession number (a.k.a. barcode) to track the item; this number is eventually added to the catalogue as part of the item information
- Materials Tracking & Management System (MTMS)

Encapsulation

Boxing

5

Restricted

National Library Board Singapore

they check on how they are going to store and access the item which dictates how they propose to process the items from the start. She said that they removed labels or stamping on the rare items, instead these labels were pasted in archival boxes or for maps they put in a Mylar enclosure. She pointed out the importance of cataloguing and metadata creation which ensures discovery and access. She said that keeping a manual list of all items is not practical, so all physical and digitised copies were catalogued onto the integrated library system and mentioned that in this process each library item has a specified accession number so that it can be tracked easily from the point of acquisition.

Another domain Ms. Makeswary stressed was the preservation and conservation of rare and special collection items. She illustrated it with an example of providing access to surrogate copies. She mentioned that they do not discard the surrogate copies after they create the surrogate copies. She suggested that creating a digitised copy was much more useful as people

could do a keyword search and aided research. She said that all digitised copies were made available online. She also referred to the conservation studio set up in 2009. She emphasised the repairs done on the rare and special collections. According to her, they focused on minimum repair to keep the original integrity and general look of the item. She further talked about prioritising conservation repair for rare and special collection materials and all the received items were fumigated at the point of receipt. She showed a picture of a rare book room and explained how the rare items are kept under lock and key in a dark room with temperature and humidity control. She added that only a few nominated staff have access to the room and another few have keys to unlock the cabinets. She said that due to their audit observations, they had implemented the two key systems. She mentioned that the books are encased in customised archival boxes, maps in Mylar sleeves and photographs in photographic sleeves or special archival albums. She further highlighted that, unlike the rare collections, the special collections are not restricted access but are kept in closed access

areas which are semi-restricted. She revealed that access is limited only to National Library staff and pointed out how they organised the ephemera collection such as brochures and pamphlets of the National Library as well as other organisations of Singapore. She also showed the picture of the special collection reading room which is used for consultations of rare and special collection items. She said that in case of rare access, they have supervised access, and the patrons have to fill out an online form available on their online catalogue. While talking about preserving the items, she said they do not even allow photocopying of rare items and fragile special collection items but only allow digital photography without flash.

Ms. Periasamy illustrated the measures that they undertook for disaster management preparedness. She mentioned that the disaster management policy was drafted in 2015 to implement recommended measures for the staff to follow. She pointed out that the disaster management policy was aligned with the business continuity plan which emphasised saving of human beings within the organisation as well as equipment. She noted that they also identified key personnel who oversee each collection area, and ensured that regular inspections are done on temperature, humidity and air quality of the storage areas. She also talked about the call free via WhatsApp which has an activation every two months to check if everyone is on the same page and elaborated that they did two tabletop exercises where they emulated the crises that can occur like fire and water leakages, and what action the staff should be taking. She further spoke on the emergency kit which they have placed in strategic locations around the storage areas and pointed out that they have identified the top 20 rare collections and kept them on

an easy-to-reach shelf within the rare book room. She demonstrated the operational activities that they have been doing at the National Library since 2008. She mentioned that the rare items have been designated 'Heritage Assets' and undergo annual and monthly audits. They must also submit a list of new inclusions to finance which will be audited by an external auditor. She highlighted that they conduct stock taking annually for rare and every two years for special collections to track missing items and added that they have a movement list for the rare items.

Ms. Makeswary Periasamy discussed the publicity and promotion policies that they introduced to ensure better funding for the preservation of the items. She mentioned that they have featured the digitised rare and collection items in an online platform known as NL Online and wrote about these collections in their quarterly journal known as *BiblioAsia*. She also spoke about the exhibitions which feature rare and special collection items and provide guided tours to the public. Apart from that, they loan them to other organisations, feature them on social media posts and encourage librarians to give monthly talks on the collections.

Ms. Makeswary then moved on to the challenges that they encountered in preserving the rare and special collections. The foremost concern she pointed out was finding a balance between preservation and access while meeting the needs of the users. She mentioned about the challenges of ensuring security for the rare and special items and mentioned they had to counsel the staff and users on proper handling guidelines, especially for the special collection items. Another key challenge she mentioned was space and storage constraints for storing oversized items. She said that they lack an automatic system to track rare materials. Furthermore, she observed that they

are looking for a way to stamp without affecting the book. Lastly, she pointed out that the two key systems need two members of staff from the rare team to retrieve rare items. She concluded her presentation with some glimpses of the digital preservation of rare and special collections.

Dr. Sangeeta Kaul thanked her for the insightful presentation and applauded the commendable work they have been engaged with. She then requested Dr. Heather Brown to start her presentation.

Dr. Heather Brown commenced her presentation with a brief overview of the importance of disaster management. She believed that all the valuable work that a library professional does to provide access to knowledge and manage and care for collections is destroyed when disaster strikes. She defined disaster as an unexpected event resulting in damage, loss and distress like fire, floods and earthquakes. She mentioned that disasters include events like pest infestation or cyber-attacks. According

to her, with the drastic climate change happening around the world, we are experiencing an 'Era of Disaster'—consecutive, simultaneous disasters with cascading effects. She further talked about a newspaper article that highlights how climate change is a leading cause of faster disasters and showed a sad picture of how a devastating flood affected the Lismore Library, Book Warehouse in South Wales, Australia. She affirmed that for the last three years, she has been a part of disaster training team for small organisations in Australia and got a grant for the same. She maintained that small organisations, public libraries with local history collections, and little museums are taken care of by volunteers. She further showed a glimpse of how a hailstorm affected a library in South Australia where she was training.

Dr. Brown discussed digital disasters especially hacking that has impacted several prestigious libraries. She talked



Dr. Heather Brown

about the British Library which has been a victim of hacking, and a major part of that library is still not fully accessible. She further mentioned that the cyber attack targeted the Library of Congress along with the British Library. She said that this digital disaster was prevented because of multi-factor authentication as reported by some sources and highlighted that even the internet archive is not immune from cyber attacks. She suggested that collections need a disaster plan also known as a Disaster Risk Management Plan (DRM). She stated the point made by the UNESCO toolkit that more than half the Memory Institutions, libraries, archives, museums, and galleries lack a Disaster Risk Management Plan. This situation is due to the persisting gap in skills and resources. Apart from that, she believed that there was a lack of training and resources and highlighted that the lack of disaster preparedness is a threat to the preservation of unique records and their accessibility. She also mentioned the UNESCO Disaster Toolkit "Building Resilience" which has been funded by a Japanese organisation and the idea behind it was to make a toolkit for trainers to train others and understand how to prevent them. She explained the approach given in the toolkit is simple and practical and includes six learning modules, self-assessment tools and training exercises and draws on existing tools, especially Australian Library and Information Association (ALIA) Tools. She said that the toolkit followed a structure of the four stages of disaster management: Prevention, Preparation, Response and Recovery. She talked about the seven key features of the toolkit. These features are – it is grounded on real-life experience and research, it is interconnected and connects the physical and digital collections, emphasises prevention and preparation, its connections with wider context, its connections with significant

collections, connects with traditional techniques, flexible and adaptable. While talking about grounded-in-life experiences and research, she showed a photograph of the team of expert practitioners across the Asia Pacific region. She discussed the Japanese and Australian recovery modules and shared that the toolkit is a comprehensive one-stop shop plan as it involves both physical and digital collections.

Dr. Heather Brown illustrated some real-life case studies and stories on disaster management. She talked about storage management (RE-ORG) at the museums, archives and cultural repositories in India and believed that lessons from real-life cases could be applied across organisations. She also mentioned the case study of the Albert Hall Museum, Jaipur and showed how they saved their collections from floods. She explained that inductive learning is part of the UNESCO toolkit. She shared an interesting story from Vanuatu National Library which built its new archive building with its local traditional design to reduce

the risk of natural disasters. Lastly, she shared that she was going to attend the launch of India's Disaster Toolkit, a programme put together by Dr. Gopal Mohan Shukla, Govt. Public Library, Prayagraj. She concluded her talk by summarising all the key features of a Disaster Toolkit again and highlighting the references she used in the presentation.

Dr. Sangeeta Kaul thanked Dr. Brown for her enriching and stimulating presentation. She affirmed that DELNET with its network of 9000 institutions will work collaboratively towards a systematic disaster management plan. The presentation was followed by a question-and-answer session for both offline and online participants. Both the esteemed speakers exhaustively answered their queries.

Concluding the symposium, Dr. Sangeeta Kaul thanked the speakers for their gracious presence and support in making it an enlightening experience. She also thanked the participants. ■

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Sharing as Strength: Libraries as Connection Machines



The 26th DELNET Annual Lecture 2024 entitled "Sharing as Strength: Libraries as Connection Machines" was organised by DELNET on December 3, 2024 at DELNET, New Delhi. Prof. Emily Drabinski, Immediate Past President, American Library Association (ALA) and Associate Professor, Queens College Graduate School of Library and Information Studies, New York, USA was the distinguished speaker who delivered the Annual Lecture in-person.

Dr. Sangeeta Kaul, Director, DELNET extended a warm welcome to Prof. Emily Drabinski and all participants who were present in-person as well as online. Nearly 650 participants attended the session.

At the very onset of the presentation, Prof. Emily Drabinski shared her thoughts on the theme of Connection and why she chose this theme for the lecture. She believed that DELNET plays a significant role by connecting 9000 libraries across India and the

world. She mentioned that DELNET has accomplished a vast array of resource sharing which is a key element of libraries. She said that DELNET is a role model for the world for sharing resources and connecting libraries.

Prof. Drabinski discussed some perspectives that she gained during her term as the President of the American Library Association. During her term, she focused on meeting library professionals and connecting libraries across the state. She shared her experience of how she and her colleague drove from George Washington University, United States to their annual conference at Santiago College, California. She mentioned they visited libraries in 11 American states and spoke to their workers in schools, public libraries and academic libraries about their work on their journey. She talked about the extraordinary commitment of the library workers towards each other and to the community. She said that they recorded in 11 public and school libraries and generated more than 90 hours of video footage. She added

that she is working on a documentary titled "This Place is Our Place" that will document the power of libraries. She said that the documentary will be openly available so that it can be screened in every community. She emphasised policy changes and support by better articulating the values that library workers bring to their work.

Prof. Drabinski highlighted that libraries connect as preservers of cultural memory. She talked about the West Virginia Public Library which has been devastated multiple times by floods resulting from climate change and the unregulated mining industry. She mentioned that she visited the library and witnessed how the library workers connected scholars and academics to the resources. She said that she is impressed by the digitisation work done by many libraries in India that connects people with their history. She added that the library connects people as a social safety net in a community and illustrated it concerning the Roseville Community Library, a community of 1200 people. She mentioned that the Roseville Community has been ravaged by poverty and the librarian has worked hard to connect the people not only with books and reading but also with material needs. She talked about an enjoyable, exciting, after-school programme for children called 'Snack Attack' designed by the librarian. She explained that Snack Attack is a project meant to address hunger in the Roseville community and believed that the library provided a safe space to be together, read, write and think together as a community and maintained that the social safety net is a huge part of how we connect and our communities. She further referred to Clayton High School Library which works on the pressing challenges of the right to read. She emphasised that everyone has the right to literacy and reading. She mentioned that the United States over the years has had a growing censorship programme that intensified the attack



Prof. Emily Drabinski receiving the Memento

on the right to access and read. She shared her experiences of meeting the librarian of Clayton High School. She said that they discussed how librarians and students are working together around this problem to ensure that everyone has the right to read the book that they want to read. They even interviewed three students who talked about how much they loved reading. She further added that reading is fundamental not only to communicating and consuming information but also to producing information and shaping imagination.

Prof. Drabinski showed a glimpse of the Thomas Branigan Memorial Library, New Mexico City, United States. She mentioned that the library is organised under the Ministry of Culture Organisation and managed by Ms. Carol Brey, former President of the American Library Association. According to her, the right to privacy is fundamental to reading and everyone has the sovereign right to their mind. She believed that it is the role of the librarian to connect the readers to their privacy rights as well as to a broader reading public. She highlighted how

Carol Brey was committed to maintaining the values of the American Library Association and supported the fact that library records must be kept private. She gave a glimpse of the diverse and lively set-up of Page Public Library, Arizona which won the Best Small Library award, in 2023 in the United States by Library Journal. She mentioned that the Page Public Library is set up at a nexus of three different geographical locations and librarians of this library did not limit their work to the people of Page but connect people across boundaries. She further said these librarians are doing an incredible job by offering programmes, food aid, and jigsaw puzzles to children and conserving the community. She then talked about the last-stop library of her journey in Arizona. She showed a happy picture of all her counterparts and said how everyone came together to share stories on that day. She observed that they discussed the pertinent role of librarians i.e. making connections, providing access to collections, incorporating AI solutions for references and resource sharing work. She highlighted the vigorous work of librarians that involves resource selection, acquisition, distribution, circulation and

preservation. She finally illustrated how challenging the work of librarians has become especially with the drastic social transformation.

She concluded her presentation by encapsulating her joyful memories of the amazing trip where she captured inspiring stories of American libraries and communities.

Dr. Sangeeta Kaul thanked Prof. Drabinski for her insightful presentation and believed that the theme of her presentation completely aligned with the mission and vision of DELNET. She then moved onto the Q&A Session. Prof. Drabinski eloquently answered all the queries of the participants.

Dr. Sangeeta Kaul extended her profound gratitude to Prof. Emily Drabinski for graciously sharing her thoughts and experiences. She thanked everyone who joined the annual lecture and made it a tremendous success. ■



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AI for Everyone – Myths Busted: Celebrating Library Networking Day 2024



An online programme on “AI for Everyone – Myths Busted: Celebrating Library Networking Day 2024” was organised by DELNET commemorating the 83rd Birth Anniversary of the late Dr. H. K. Kaul, Founder Director, DELNET on December 21, 2024. Mr. Kanwaljeet Singh Arora, AI and Blockchain Consultant and Dr. Raj Kumar Bhardwaj, Chief Librarian, St. Stephen's College, University of Delhi were the distinguished speakers of the programme.

Dr. Sangeeta Kaul, Director, DELNET, extended a warm welcome to the speakers and participants. The programme was attended by 1317 participants from India and abroad.

Dr. Sangeeta Kaul welcomed the first speaker of the prestigious programme, Mr. Kanwaljeet Singh Arora. The theme of his presentation was ‘Harnessing the Power of AI’.

In his presentation, Mr. Arora provided a broad comprehension of the AI Landscape and how industries are using AI Tools. He gave an overview of

some of the impactful AI tools that can be leveraged in our daily processes and workflows and further debunked some myths that are associated with AI Technologies. He believed that his presentation would help to improve the team's productivity using AI Tools and understanding how AI can be used to automate workflows.

Mr. Arora planned the session into seven modules that encapsulated the following topics – introduction to AI, AI deep dive, Generative AI, AI Tools for Productivity and Innovation, Demos, AI Ethics and Future Trends in AI. He stated that AI can be defined as a set of technologies that enable machines or computers to perform tasks that require human intelligence. He explained that such machines can ensure decision-making, problem-solving and reasoning and added that AI learns and gets better over time. He illustrated that AI systems encounter more data during their usage enhancing their performance. He highlighted some of the broad capabilities of AI Systems – Patterns Recognition, Data Analysis, Predictive Analysis,

Decision Making, Reasoning and Problem Solving, Natural Language Processing (NLP), Speech Recognition and Synthesis and Computer Vision. He mentioned that AI is not a recent phenomenon but has evolved over the last few decades. He said that AI emerged in the 1950s and 1960s, while Machine Learning took over in the 1990s and finally Deep Learning gained ground from 2010 onwards. He further mentioned some common AI-enabled applications and services: Siri, Alexa, Smart TVs, Product and Content recommendation engines like online shopping platforms, social media platforms, Email Spam Filters, Telecom Call Filters, Plagiarism Checks in Higher Education and Research Institutes. He showed a list of various AI cases across industries and their utilities.

Mr. Arora moved on to provide some valuable insights into AI Deep Learning. He started by describing one of the significant technologies, i.e. Machine Learning (ML). He explained that ML focuses on enabling machines to learn and improve their performance. He mentioned that ML Algorithms can learn from data and improve their performances. He further said that income tax department, banks, and credit card companies use machine learning as ML algorithms can learn from past transactions and figure out and flag a suspect transaction. He then described Deep Learning, which is a subset of Machine Learning. According to him, Deep Learning is much more advanced than Machine Learning as it focuses on solving complex tasks. He elaborated that deep learning can also deal with images which is much more complicated than transactional data. He further mentioned that self-driving cars are one of the biggest use cases for deep learning. The next AI technology he highlighted was Generative AI and referred Generative AI as a part of deep learning technology. He believed that Generative AI is leading a revolution in

AI usage as it can generate new original content such as text, images, data, audio, video, or code by learning patterns from existing data. He further talked about the Large Language Model (LLM) which is a subset of Generative AI. He explained that LLMs are advanced artificial intelligence models trained on extensive datasets to understand, generate and process human language and mentioned some examples of LLM – Chat GPT, Claude, Gemini, Falcon, etc. He said that these applications are pre-trained with extensive data and can comprehend and respond to a prompt and further highlighted that language models can be both generic and specific.

Mr. Arora highlighted that as GPT and ChatGPT are released for public usage there is a surge in AI applications and leveraging generative AI technologies.

He demonstrated the capabilities of the Generative AI revolution and divided them into three distinct categories: Textual, Data and Multimedia. Regarding textual capabilities, he pointed out the capabilities of language comprehension, generating text, summarisation, categorisation, sentiment analysis and translation. He then discussed the data capabilities that involve generating test data and performing data analysis. Lastly, he talked about multimedia capabilities like generating images, video, audio from text and video tagging. According to him, incorporating AI technologies in workflows can enhance a team's productivity and provide opportunities for innovation and creativity in its multimedia space. He highlighted three popular and effective LLM platforms – Chat GPT, Claude and Gemini. According to him, these platforms have been trained on large amounts of data and can comprehend and respond appropriately.

Mr. Arora talked about how Generative AI can be effectively integrated into library management systems and

emphasised some of the domains within library management where one can leverage AI tools. These involve cataloguing, classification, personalised recommendations, library assistance and research assistance. He further talked about how AI tools can be useful for research scenarios like literature review, data analysis and content generation. He then walked through a list of some of the impactful AI tools that can enhance productivity and innovation.

Mr. Arora showcased a few demonstrations on some general capabilities of ChatGPT, Claude, Elicit, ChatPDF, Gama, and Invideo. He started with ChatGPT and showed how it responded to some of his prompts. He demonstrated how ChatGPT is integrated with the web and can provide the latest information from the web. He further showed a sentiment analysis done by ChatGPT and then moved onto Claude which has a slightly different interface. He showed how one can attach and upload a file to get a detailed data analysis and further illustrated the concept of prompt engineering and some prompting techniques. He highlighted that prompting techniques play an important role in using AI technology and some techniques can derive better results. He elaborately defined seven prompting techniques: Shot Prompting, Few-Shot Prompting, Role-Based Prompting, Chain of Thought Prompting, Style-Based Prompting, Creative Prompting, and Structured Prompting. Mr. Arora demonstrated how a person can create a PPT Presentation on any theme using AI Application Gama and highlighted the demo on the topic 'AI in Library Management'. He further showcased how one can create a video from text input using the AI application tool Invideo.

Mr. Arora debunked some of the popular myths surrounding AI Applications and went through a list of myths and related them with the reality. He affirmed that AI has been ongoing since the 1950s, unlike the widespread belief that AI is a

recent phenomenon. He further explained that AI will not take over everything and reflects biases in its training data and design choices. He mentioned that AI lacks human emotions and relies on human input for improvement and also explained that AI can just automate some tasks but not replace jobs. He said that instead it will create new roles and enhance human capabilities. Another myth that he refuted is that AI is flawless. On the contrary, he pointed out that AI can make errors and requires monitoring and updates. He added that AI systems are trained and programmed to do specific tasks. Lastly, he mentioned that AI is accessible to individuals and small businesses and can be used without technical or coding knowledge.

Mr. Singh touched upon the parameters of Ethical AI. According to him, AI systems should be secure, ensure data privacy, fair, unbiased, accountable, transparent, protect copyright and IPR, and compliant with the regulations. He believed that this is relevant because AI has been trained on data and sometimes this data can be biased. He highlighted the future trends in AI. He holds that Generative AI will take centre stage and will have advanced human understanding capabilities and pointed out that there will be development and progress on AI Ethics to manage the overall AI ecosystem. He concluded his presentation with the hope of seeing much more deployment of AI in healthcare, education, AI-powered creativity, autonomous systems, robotics and on-edge devices like smartphones for real-time and private solutions.

The presentation was followed by a QA session. Mr. Arora answered all the queries in a detailed and lucid manner.

Dr. Sangeeta Kaul thanked Mr. Kanwaljeet Singh Arora for such an incredible presentation. She appreciated how he encapsulated the evolution and

revolution of AI along with the AI tools. She is hopeful that his presentation would inspire the attendees to come together and make the best use of these impactful AI tools in Libraries.

Dr. Sangeeta Kaul welcomed the second distinguished speaker, Dr. Raj Kumar Bhardwaj, Chief Librarian, St. Stephen's College, University of Delhi. The theme of his presentation was "Landscape of Artificial Intelligence in Academic Libraries: Opportunities and Challenges."

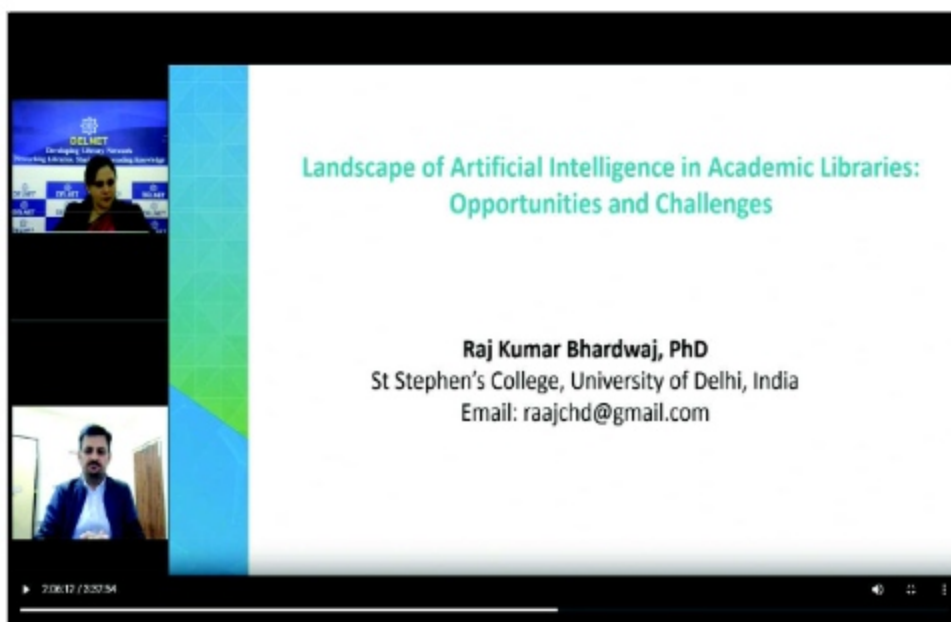
At the very onset of his presentation, Dr. Raj Kumar Bhardwaj highlighted three domains where Artificial Intelligence can be applied in libraries—firstly, integrating AI systems in the existing library management system, secondly, preparing tools to monitor the performance of the systems and finally, using existing AI tools like ChatGPT, Elicit and so on. He outlined the evolution of AI, which was started in 1956, by Alan Turing. He then discussed the three activities proposed by Charles Babbage that happened in industry—surveillance, computation and labour forces. He explained that Charles Babbage wanted to automate the tasks of the labour force and AI is a subset of that automation. He talked about Machine Learning, which is a subset of AI, and trained to take the decisions. He then discussed the two technologies involved in generative AI – generative and conversational. He illustrated that AI in libraries is allowing the users not just to retrieve the content from the system, but also to converse with the system to receive the appropriate content. He further highlighted that Machine Learning has two categories: Supervised Machine Learning and Unsupervised Machine Learning. He believed that it is the librarian's responsibility to educate the users and society regarding who is going to benefit from AI. He explained how Generative AI can give such accurate information and referred to

research done by IBM on how translations and text-generated content can be improved. He mentioned that it came up with an idea that rather than focusing on the linguistic aspect of the machine, one needed to work on the statistical model of the AI.

Dr. Raj Kumar highlighted the recent transition AI has undergone since the time of Alan Turing. According to him, the storage of the data has improved, the scale of computing has enhanced, and the quantity of available data sets has evolved. He shared a fascinating story of a German horse, Clever Hans, living in the twentieth century and said Clever Hans can identify alphabets and do calculations like addition and subtraction. He further mentioned when the education department researched the horse, they came up with the conclusion that Clever Hans could give the correct answer by observing the behaviour and facial expression of the questioner. He explained that AI works in a similar technology by taking the hints of the questioner matching them with their data and giving the correct answer. He reaffirmed Sundar Pichai's statement that Artificial Intelligence is the most important thing humanity has ever worked on, and

it is much more profound than electricity and fire. He also stated that 37.1 per cent annual growth goes into artificial intelligence, and it is estimated that by 2030 it will become 1000 billion worth of industries.

Dr. Bhardwaj stressed another subset of deep learning called the Imitation Learning System citing the example of Tesla where they recorded the behaviour of the driver. Another example he mentioned was the YouTube suggestions and recommendations based on previously watched videos. He further illustrated some shared principles one must learn while using AI. According to him, library science professionals need to understand these shared principles before conducting any AI literacy programmes. He mentioned that while setting up an AI platform one must ensure that they are transparent and explainable. He said that it must ensure fairness, inclusivity, and privacy and adhere to the corporate laws and further affirmed that the fundamental aim of AI is to uplift society and ensure better lives. He pointed out that biases, inaccuracy and hallucination are the major risk factors while using AI. He emphasised



the advent of AI in libraries and mentioned that AI tools can improve the performance of retrieval, and the search system has become cognitive. He highlighted another generative AI tool, Research Assistant, presented by Web of Science which helps researchers at all levels to get the best out of their interactions. He enumerated some other areas of libraries where AI can be applied like personalised recommendation systems, resource management, data analytics, and knowledge sharing for an improved user experience. He gave a brief explanation of how Stanford University Libraries integrated AI and launched an AI studio to analyse user behaviour and predict future needs and preferences.

Dr. Raj Kumar Bhardwaj demonstrated how to start a Retrieval Augmented Framework in the libraries and recommended that libraries should use open-source platforms like LangChain, LlamaIndex, and Haystack to start a conversational AI Chatbot. He recommended that while integrating generative technologies, library professionals should use BERD models which are unidirectional. He showcased a graph that highlighted the growth of the various open-source AI tools like Llama and Llama 2. He also demonstrated a comparative chart between Llama 2 and Chat GPT 4 and then talked about another tool MS Azure which can be integrated with minimal technical effort. He further highlighted how AI is creating copyright issues and described a few copyright-specific agreements like the Berne Convention, TRIPS agreement, and WIPO Copyright Treaty. He also warned that many large language models have started injecting copyright content into their system creating a threat for the libraries. He said that many libraries like Stanford University Library have set up their own AI platforms called Storm.

Dr. Bhardwaj focused on the IndiaAI programme initiated by the Government of India where they are training manpower, setting up computing capacities, and giving a cloud platform. He specifically mentioned SCITE as it integrated AI before ChatGPT and has taken citation to a different level. He further explained other tools like Alethea, LitMap, and Elicit and talked about a platform called Future PDF where the links of all these tools are given as a directory of AI Tools. He categorised these tools into four categories. These categories include: administrative tools like ChatGPT, Recommendation Systems, Searching Literature and Data Analysis, and Academic Writing Tools. Another concept that he elaborated on is the End of the Consent which involves monitoring a person's personality with the help of a biometric identification system and face recognition system. He further referred to the biases in the AI systems and shared an instance where a company started a recruitment programme based on AI technology and the recruitment turned out to be completely biased. According to him, large language models are giving you the results that they want people to see. He believed library professionals have a greater responsibility to set up their large language models based on open-source platforms. He noted that the major challenge for library professionals is how to integrate AI into the library, highlighting the UNESCO Competency Framework that shows the road map for integrating AI through three stages: Acquire, Deepen, and Create. He explained that library

professionals should first acquire a basic understanding of AI, then deepen the understanding by using different AI tools, and finally create an AI platform on the existing system. He mentioned that AI technologies are doing wonders in a wide range of areas like inclusivity, and defence, but he also pointed out that there should be a proper evaluation system while incorporating AI technologies. He listed some major challenges faced by libraries in integrating AI tools.

Dr. Bhardwaj showcased a demo on how the prominent AI tool Elicit works. He showed how it gives different hints and can be further categorised into different columns based on the findings. He concluded his presentation by recommending that the attendees should follow the UNESCO framework – acquire, deepen and create to set up the right artificial intelligence programme in the library.

The presentation was followed by a Question-and-Answer session. Dr. Bhardwaj eloquently answered all the queries of the participants.

Dr. Sangeeta Kaul thanked Dr. Raj Kumar Bhardwaj for his impressive presentation and believed the presentation encompassed both the challenges and opportunities of AI technologies with a special focus on libraries.

Dr. Sangeeta Kaul concluded the programme by extending heartfelt gratitude to the distinguished speakers and participants for being a part of the programme. ■

*The Video Recording of the
programme
can be viewed at
<https://www.youtube.com/watch?v=IYhqhlIZwZc>*

DELNET Workshops

DELNET organised a number of Workshops in collaboration with Member-Institutions during the year 2024 in various parts of the country.



A one-day DELNET Workshop in collaboration with COEP Technological University, Pune, Maharashtra and in association with Yashaswi Education Society's International Institute of Management Science, Pune, Maharashtra was organised on January 6, 2024 at COEPTU. Prof. (Mrs.) A. G. Thosar, Director, Knowledge Resource Centre; Mrs. Anita Deshpande, Librarian Incharge, COEP Technological University, Pune, Maharashtra & Mr. Pavan Sharma, Librarian, Yashaswi Education Society's International Institute of Management Science, Pune were the Local Coordinators of the Workshop.



A one-day DELNET Workshop in collaboration with MGM University, Chhatrapati Sambhajnagar, Maharashtra was organised on January 9, 2024. Mr. S. B. Harkal, Librarian, MGM University, Chhatrapati Sambhajnagar, Maharashtra was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with H. V. P. M's College of Engineering & Technology, Amravati, Maharashtra was organised on January 11, 2024. Dr. Milind B. Anasane, Librarian, H. V. P. M's College of Engineering & Technology, Amravati, Maharashtra was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Dayanand Science College, Latur, Maharashtra was organised on January 13, 2024. Mr. K. R. Bhise, Librarian, Dayanand Science College, Latur, Maharashtra was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Navrachna University, Vadodara, Gujarat was organised on January 22, 2024. Dr. Jaydeepkumar Mehta, University Librarian, Navrachna University, Vadodara, Gujarat was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Chitkara University Himachal Pradesh, Baddi was organised on July 6, 2024. Dr. Hemlata, Librarian & Dr. Gurdev Yadav, Assistant Librarian, Chitkara University Himachal Pradesh, Baddi were the Local Coordinators of the Workshop.



A one-day DELNET Workshop in collaboration with Dronacharya College of Engineering, Gurugram, Haryana was organised on August 24, 2024. Ms. Savita Devi, Librarian, Dronacharya College of Engineering, Gurugram, Haryana was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Somaiya Vidyavihar University, Mumbai, Maharashtra was organised on August 27, 2024. Dr. Hindurao S. Waydande, Professor Emeritus & University Librarian, Somaiya Vidyavihar University, Mumbai, Maharashtra was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with IIMT University, Meerut, Uttar Pradesh was organised on August 31, 2024. Mr. Sandeep Sharma, Chief Librarian, IIMT University, Meerut, Uttar Pradesh was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Malaviya National Institute of Technology, Jaipur, Rajasthan was organised on October 19, 2024. Dr. Rishi Kumar Tiwari, Librarian, Malaviya National Institute of Technology, Jaipur, Rajasthan was the Local Coordinator of the Workshop.



A one-day DELNET Workshop in collaboration with Davangere University, Davangere, Karnataka was organised on December 13, 2024. Prof. B. D. Kumbar, distinguished VC Inaugurated the Workshop. Dr. Neelamma G., Assistant Librarian & Dr. Nagaraj C., Assistant Librarian, Davangere University, Davangere, Karnataka were the Local Coordinators of the Workshop.