NACLIN 2017 : A Report

Dr. Sangeeta Kaul*

The 20th National Convention on Knowledge, Library and Information Networking – NACLIN 2017 on the theme “A Digital Universe of Infinite Possibilities for Libraries” was organised by DELNET at the India International Centre, New Delhi from November 28-30, 2017. It was inaugurated on November 28, 2017 by the Chief Guest Hon’ble Shri N. N. Vohra, Governor, Jammu & Kashmir. The Guests of Honour were Prof. Anil D. Sahasrabudhe, Chairman, AICTE, New Delhi and Prof. C.R. Karisiddappa, Former President, Indian Library Association (ILA) & Former Professor and Chairman, DLISc, Karnatak University, Dharwad. Ms. Aruna Adiceam, Deputy Counsellor for Cooperation & Cultural Affairs, Country Deputy Director, French Institute in India, Embassy of France was the Special Invitee.

The Hon’ble Chief Guest Shri N. N. Vohra inaugurated the Convention by lighting the lamp.

Dr. Sangeeta Kaul, Network Manager, DELNET and Organising Secretary, NACLIN 2017 delivered the welcome address.

Dr. H. K. Kaul, Director, DELNET delivered the introductory address. He said that the 1st NACLIN in 1998 was presided over by Shri N. N. Vohra and now the 20th NACLIN was inaugurated by him. He further said that though the journey of DELNET was interesting but it was difficult too. Dr. Kaul said that though DELNET resources and membership during the last 19 years have increased appreciably, but we have to work extensively to network all libraries in India. He said that more and more libraries should join DELNET and get benefited and modernised to serve their users better. He said that DELNET’s ILL facility is the best in South Asia. He expressed his gratitude to the Hon’ble P.M. Shri Narendra Modi for releasing a message for the souvenir who reiterated that libraries need to get modernised and they have to provide quality information to the users, students and teachers in the country. Dr. Kaul said that DELNET has already more than 6000 Institutions as its members.

He added that the technical libraries have improved due to the active programmes of AICTE in the recent years. The entire technical education system is moving ahead with the times and the library sector in it is the one sector which really needs to be upgraded further. DELNET is trying its best in this regard. Dr. Kaul said that DELNET wants the necessary information to reach every citizen in the country and they should benefit from it. He further lauded the Digital India Movement of the Government of

* Network Manager, DELNET and Organising Secretary, NACLIN 2017
India and opined that the library sector should actively get involved in the Digital India Movement. He said that public libraries were controlled by various state governments and that each state had its own priorities. He added that the necessary financial support should be made available to public libraries by the state governments.

Dr. Kaul expressed his concern that the footfall in libraries was declining and the main reason for it was that users were getting more information from the Web. He further reiterated that libraries had to wake up as information is doubling every few months and it was becoming difficult for students to collect quality content from all the information available through the Web. Library professionals should play a pivotal role in this regard.

He added that DELNET has to play a major role and libraries have to provide value-added information, new information and tailored information to suit every individual in order to develop a knowledge society. DELNET is committed to the modernisation of libraries, networking of libraries and to the spreading of knowledge.

Prof. Anil D. Sahasrabudhe, Chairman, AICTE, New Delhi said that AICTE-DELNET had signed an MOU in 2001. He said that each word in ‘Knowledge, Library & Information Networking’ is significant for knowledge economy. Prof. Sahasrabudhe said that libraries existed from the times of Nalanda and it had taken 6 months for Nalanda to get fully burnt as it had a huge repository of documents. He said that though libraries existed for several thousand years but their importance was never diminished. The library professionals, professors and faculty members are now anxious that the number of students entering the libraries these days is thinning. The reason being the development of the Internet. Since the Internet grew rapidly, too much information has become available through it and people do not realise that it is all scattered and if you want to distil it that could be done at places like libraries. He added that the academicians also get worried sometimes because a lot of digital content was available through MOOCs (Massive Open Online Course). Many teachers felt threatened that their jobs were in danger. He said that we should remember that all of technology is an enabler and we should also remember that libraries would be required for good content though the nature of services will remain changing. He felt that we needed to change in accordance with the modern times and that the role of libraries was essential in it. He affirmed that although the courses are available online but the role of competent teachers will always be required.

He also wished DELNET to grow from 6000 libraries to 10,000 libraries in the near future. Prof. Sahasrabudhe said that libraries should be open 24/7. He added that because of digital networking today libraries are at your doorsteps, in your rooms, on your mobile phone, on your laptops and in your homes whether in villages or cities. He said that the library profession should make best use of the IT revolution.

He emphasised that ‘Digital India’, ‘Make in India’, ‘Start up India’ are vital for everyone and more so far for Library & Information Science professionals. He said that it is necessary that some of the startups should emerge which will distil the information for the users. He opined that as the use of information depend on the taste of the person, what type of book he would read and what type of information he needed, could we not segregate that information and give it as an elective? He felt that Library Science has a great future and DELNET is doing commendable work.
Prof. Sahasrabudhe added that in AICTE approved institutions 30% books collection could now be E-books, which may gradually increase to 50%. Students could have any library books of their choice right in their hostel rooms or residences so that their reading habits would improve as reading habits were reducing as students were using shortcuts. He further said that reading habits had to improve and DELNET had a great role to play. He appealed to everyone to consolidate whatever they were doing further to encourage our students, faculty members in order to make best use of the resources and make India a proud nation.

Prof. C.R. Karisiddappa, Former President, Indian Library Association (ILA) & Former Professor and Chairman, DLISc, Karnatak University, Dharwad delivered the Guest of Honour address. He said 25 years was not a short period in the life of an institution and proudly said that DELNET had emerged as the country’s prestigious institution. He said that great institutions are built with enduring values. DELNET is one such organisation which has a reputation all over the country and outside. DELNET has created new horizons and continues to promote access to scholarly material from time to time. He appreciated the efforts of DELNET in providing training to LIS professionals. As a result, they are empowered to cope with the information explosion and technology invasion. He greatly appreciated the role played by the Founding Director of DELNET, Dr. H. K. Kaul and the contributions made by DELNET during the last 25 years.

Ms. Aruna Adiceam, Deputy Counsellor for Cooperation and Cultural Affairs, Country Deputy Director, French Institute in India, Embassy of France delivered the special address. She said that the French Embassy in India was happy to collaborate with DELNET in organising NAACLIN 2017 during Bonjour India celebrations. She noted that DELNET was offering an important service in India and there was possibility of cooperation between similar institutions in France and DELNET.

It was followed by the release of NAACLIN 2017 proceedings by Shri N. N. Vohra and Prof. Anil D. Sahasrabudhe released the NAACLIN 2017 souvenir. Hon'ble Shri Vohra in his inaugural address said that DELNET took birth in a room 200 yards from here in the Conference hall of the IIC. In the early
years, the progress of DELNET was very slow owing to day-to-day difficulties, lack of telephone connections, leave aside Internet. He said that there were many teething problems but over the years DELNET has grown. He also observed that he felt happy that for many years he was associated with this movement.

Shri Vohra said that, we have a long way to go. The concept of globalisation, free world market and highly competitive environment are the genesis of knowledge society. If you are in a global situation competing with the whole world with your products and services, in this competitive environment it is the level of your knowledge, your technical skills and your Science & Technology base which will make you succeed or fail. He noted that the enormous revolution which had been achieved in the past two decades in the arena of IT, use of Internet, use of IT, the birth of the small telephone and small gadgets have made the whole world fit into your pocket. He added that a general feeling had developed that the print medium was not relevant, printed books were not important and consequently libraries were also marginally important. But he said that he did not agree with this notion.

Mr. Vohra said that libraries had to get modernised and have to remain relevant and catch up with the modern times.

He said that the libraries had lost the pride of place in the past 70 years. We need to restore the status of libraries and have many more libraries, he felt. Most of our public libraries are decaying because of lack of resources. The issue of great concern in what has been in the past seven decades is to raise the status of the library and library professionals.

Mr. Vohra said that the role of libraries and librarians had also to be looked into from the view of technology applications. The human resource development needed to be done adequately which could catch up and match the speedily advancing frontiers of knowledge.

The inaugural function was followed by tutorials. The first tutorial on ‘Communication Skills for LIS Professionals’ was conducted by Prof. Vijay Vancheswar, Professor, Communication and General Management, International Management Institute (IMI), New Delhi. He discussed the importance of good communication skills for librarians and also explained in detail what steps LIS
professionals should take to improve their communication skills. A special tutorial was also conducted on ‘Total Quality Person’ by Prof. (Dr) C V Ramanan, Inspirational Speaker & Life Coach, Director, Centre for Joy @ Work, INMANTEC Group of Institutions, Ghaziabad. Both tutorials were greatly appreciated by the delegates. This year we introduced a special session on “Poster Presentations” which was conducted by Dr. Neela J. Deshpande, Former Prof. & Head, DLISC. & University Librarian, Savitribai Phule Pune University, Pune & Consultant, DELNET Coordination Unit, Pune & Dr. S. D. Khan, Former Librarian, Waljat College of Applied Sciences, Muscat & Former Consultant, DELNET Coordination Unit, Hamirpur (HP). The delegates who had set up posters were given the forum to elucidate the main concepts of their posters. This was followed by a visit to the poster presentations area and to the exhibition which were part of NACLIN 2017. The day concluded with a cultural evening and networking dinner in the Fountain Lawns of IIC.

On the second day, the first Technical Session was devoted to ‘Digital Technologies and Trends’. The session was chaired by Dr. N. Vijayaditya, Former Director-General, NIC & Controller of Certifying Authority, MeitY. The first keynote paper was delivered on ‘Smart Cities and Big Data’ by Dr. A.R.D. Prasad, Professor and Head, Documentation Research & Training Centre (DRTC), Bangalore. He gave examples of the relevance of big data in smart cities and what role LIS professionals could play in this work. The second keynote paper was delivered on ‘Research Data Management: Implications for Institutes’ by Dr. Devika P. Madalli, Professor, Documentation Research & Training Centre (DRTC), Bangalore. She explained how the management of research data in the institutes should be done by LIS staff and be part of the national initiates of research data management as is done by ICSSR. The third keynote paper on ‘Libraries in the Cloud Environment’ was delivered by Dr. P. K. Upadhayay, Technical Director & Cloud Coordinator (Library Division), National Informatics Centre (NIC), MeitY, New Delhi. He discussed the cloud facility developed by NIC and hoped that libraries could use NIC cloud for managing their library data online.

The second technical session was devoted to ‘E-content Management’. The session was chaired by Dr. A.R.D. Prasad. The first keynote paper was...
delivered by Dr. H. K. Kaul on ‘Digital Collection Strategies for Libraries’. He explained in detail the strategies that libraries should adopt for developing and archiving of the digital collections. The second keynote paper was on ‘Digital and Physical Preservation Management: Best Practices and Strategies’ by Mrs. Heather Brown, Assistant Director of Paper, Books and Preventive, Artlab Australia, Adelaide. She explained the similarities between physical and digital preservation methods and also explained how archiving of digital data could be carried out. The third keynote paper was delivered on ‘The French Project DELI: Towards a Digital Dictionary of South Asian Literatures’ by Dr. Nicolas Dejenne, Lecturer, Indian Studies, Sorbonne University, Paris and Researcher, French Institute of Pondicherry. He explained how they were developing the dictionary of South Asian literature with examples to elucidate the work being done. A paper on ‘Digital and Traditional Preservation of Manuscripts: Care and Restoration in Rampur Raza Library, Rampur’ was delivered by Mr. Zubair Mahmood, Professional Assistant, Dr. Zakir Husain Library, Jamia Millia Islamia, New Delhi and Research Scholar, Shri Venkateshwara University, Gajraula, Amroha, Uttar Pradesh. He explained with illustrations how preservation work was carried out at Rampur Raza Library. A paper on ‘Awareness and Use of e-PG Pathshala Open Courseware by PG Students of Mizoram University: A Survey’ was presented by Dr. Manoj Kumar Verma, Assistant Professor, Mizoram University, Mizoram. The paper was co-authored with Ms. Krishna Brahma, Research Scholar, Mizoram University, Mizoram. It was followed by product presentations by Accucoms and Elsevier.

A special talk on ‘A Digital Universe of Infinite Possibilities for Libraries’ the
The theme topic of the national convention was delivered by Dr. Roshan Lal Raina, Vice Chancellor, JK Lakshmipat University, Jaipur. He gave examples of how digital content could be used by libraries working in different disciplines. Dr. S.S. Murthy, Former Director, DESIDOC & Consultant, DELNET Coordination Unit, Hyderabad presided over the lecture.

The third technical session was devoted to ‘Innovative Library Services for Users’. The session was chaired by Dr. Roshan Lal Raina. The first keynote paper in this session on ‘Re-engineering Library and Information Services Conforming to Contemporary Information Landscape : Challenges and Opportunities’ was delivered by Prof. I.V. Malhan, Head, DLISc & Dean, SoMC&IS, Incharge, Library, Central University of Himachal Pradesh, Dharamshala. Prof. Malhan asked LIS professionals to modernise their libraries quickly so that they do not miss the opportunity in developing a digital library. He gave ample examples to elucidate his arguments. The second keynote paper on ‘Expanding Horizons of Libraries : New Opportunities’ was delivered by Dr. Vivek Patkar, Independent Researcher & Former Professor, Quantitative Methods & Operations Management, ICFAI Business School, Mumbai. He felt that the present-day libraries needed to get modernised as in future there was going to be a digital revolution in which libraries needed to adopt technologies to collect data, process it and serve it to users. The third keynote paper on ‘Innovations in French Libraries’ was delivered by Ms. Héloïse Courty, Independent Trainer & Library Consultant, Paris, France. She gave examples of how library spaces could be re-planned to include new services for users besides maintaining the existing ones. A keynote paper on ‘Library Services for Differently Abled Users’ was delivered by Dr. Ramesh C. Gaur, University Librarian, Jawaharlal Nehru University, New Delhi. He focussed on how JNU Library was offering services to the differently-abled using new technologies. The paper on ‘Collections Development and Services of Special Libraries in Aizawl: A Survey’ was presented by Dr. Lalngaizuali, Assistant Professor, DLISc Mizoram University, Mizoram and Ms. Lallawmawmi, Research Scholar, DLISc Mizoram University, Mizoram.

The fourth technical session was devoted to the ‘Management of Public Libraries’. The session was chaired by Prof. P.B. Mangla, Tagore National Fellow, Government of India, Ministry of Culture with Co-Chair Dr. B. Shadrach, Founding Chair IPLM, and Chair INELI-South Asia and Asia Coordinator, A4AI, US. The first keynote paper on ‘Managing Public Libraries: Challenges and Opportunities for the 21st Century’ was delivered by Ms. Héloïse Courty, Independent Trainer & Library Consultant, Paris, France. She gave examples of how library spaces could be re-planned to include new services for users besides maintaining the existing ones. A keynote paper on ‘Library Services for Differently Abled Users’ was delivered by Dr. Ramesh C. Gaur, University Librarian, Jawaharlal Nehru University, New Delhi. He focussed on how JNU Library was offering services to the differently-abled using new technologies. The paper on ‘Collections Development and Services of Special Libraries in Aizawl: A Survey’ was presented by Dr. Lalngaizuali, Assistant Professor, DLISc Mizoram University, Mizoram and Ms. Lallawmawmi, Research Scholar, DLISc Mizoram University, Mizoram.
keynote paper in this session on ‘Public Libraries as Learning Spaces and Local Gateways to Digital Universe of Infinite Possibilities’ was delivered by Dr. Jagtar Singh, Professor Incharge Library, Punjabi University, Patiala. Dr. Jagtar Singh described the condition of public libraries in India which is not very promising and described in detail how digital services through public libraries could help in transformation of the society. The second keynote paper on ‘Digital Reference Services in Public Libraries’ was delivered by Mrs. Neeti Saxena, Head, Library & Information Services, North India, British Council Library, British High Commission, New Delhi. She gave elaborate examples of the types of digital reference services that could be undertaken by public libraries. She also explained how digital reference service was being given in UK in public Libraries. The third keynote paper on ‘How to Increase Readership in the Libraries: Best Practices’ was delivered by Ms. Geeta Malhotra, Country Director, Read India, Gurgaon. She explained how Read India was spreading reading habits in libraries and hoped that these systems were replicable in other public libraries as well. The fourth paper on ‘Users’ Study and Expectations in Labony Granthagar (Public Library) : A Case Study’ was delivered by Dr. Lopita Mukherjee, Librarian, St. John’s Diocesan Girls’ Higher Secondary School, Kolkata, West Bengal and Ms. Sabita Kundu, Librarian, Techno India-Batanagar, Kolkata, West Bengal. A musical evening was organised in the evening which elated the mood of the delegates.

On the third and concluding day the fifth technical session was held devoted to ‘Social Media Application in Libraries’. Dr. P. R. Goswami, Librarian & Head (KN), Indira Gandhi National Centre for the Arts, New Delhi presided over the session. Dr. Debal C Kar, Librarian, Ambedkar University, Delhi was the co-chair. The first keynote paper on ‘Library Services and Social Media : The East West University Library Experience’ was delivered by Dr. Dilara Begum, Associate Professor and Chairperson, Department of Information Studies and Librarian (Acting), East West University, Dhaka, Bangladesh. She explained how the East West University Library was communicating with the students and faculty using the social media. She noted that this use had amply improved the use of digital and other resources in the library and the students were performing well. The second keynote paper on ‘Crowdsourcing and Crowdfunding : An Opportunity to
Libraries for Promotion and Resource Generation in Changing Scenario’ was delivered by Dr. Nabi Hasan, University Librarian, Maulana Azad Central Library, Aligarh Muslim University, Aligarh. He felt that in this day of growing digital resources and respective technologies it was becoming essential to use crowdsourcing and crowd-funding by libraries. The second keynote paper on ‘Embrace Digital Transformation’ was delivered by Dr. Shantanu Ganguly, Fellow, Knowledge Management Division, TERI, New Delhi. He gave examples of important libraries in the world and the technologies they were using and being benefited from as a result. A paper on ‘A Study on the Use of Social Media Among Mizoram University Students Who Visit the Central Library’ was delivered by Ms. B. Lalhlimpuii, Assistant Librarian, Mizoram University, Mizoram.

The sixth technical session on ‘Human Resource Management in Libraries’ was chaired by Prof. C.R. Karisiddappa, Former Professor and Chairman, Department of Library and Information Science, Karnatak University, Dharwad, Karnataka. The first keynote paper in this session on ‘Quality Assurance and Building Professional Competency in LIS Education and Training: Issues and Concerns in the Digital Environment’ was delivered by Dr. Pravakar Rath, Professor, Department of Library and Information Science, Mizoram University, Aizawl, Mizoram. He noted how major changes needed to be undertaken in LIS education to adopt new technologies and improve quality assurance in LIS education. The second keynote paper on ‘Total Quality Management at Brahmos Knowledge Centre, New Delhi (ISO Certified)’ was delivered by Mrs. Surekha Kaul, Chief, Innovation and Strategic Analysis, BrahMos Aerospace Private Limited, New Delhi. She explained that they adhered to ISO specifications and maintained excellence in collecting and delivering the required information. A paper on ‘Open Educational Resources (OER): Transforming the Learning Landscape in the Digital Environment’ was delivered by Mr. Amit Kumar, Assistant Professor, DLISc, Mizoram University, Mizoram. The paper on ‘Media and Information Literacy (MIL) Education and Training for LIS Professionals in the Digital Era’ was delivered by Dr. Navkiran Kaur, Assistant Professor, DLISc, Punjabi University, Patiala. She described why media and information literacy should be part of the course curriculum of LIS students.
The seventh technical session was devoted to ‘Open Access Resources and User Studies’. Dr. S. Majumdar, Chief Librarian, India International Centre, New Delhi presided over the session. Dr. P. K. Jain, Librarian, Institute of Economic Growth, Delhi was the co-chair. The first paper on ‘A Comparative Study of Information Resources in Central University Libraries in Delhi’ was delivered by Dr. Ajit Kumar, Library and Information Officer, Nehru Memorial Museum and Library, New Delhi. He identified the gaps in the information resources in these libraries and described the collection development patterns in these libraries. The second paper on ‘Library Use Patterns by Faculty Members: A Case Study’ was presented by Dr. H.P. Shekar, Chief Librarian, The Oxford Educational Institutions, Bangalore, Karnataka and Ms. Nirmala Chigateri, Associate Librarian, J.S.S. Banashankari Arts, Commerce & S. K. Gubbi Science College, Dharwad, Karnataka. The delegates were later shown the DELNET Silver Jubilee Documentary.

A panel discussion was organised on ‘A Digital Universe of Infinite Possibilities for Libraries’, the main theme of the national convention on November 30, 2017. The panel was moderated by Dr. H. K. Kaul, Director, DELNET. The panelists included Mrs. Kalpana Dasgupta, Former Librarian, National Library, Kolkata; Prof. C.R. Karisiddappa; Dr. D. V. Singh, University Librarian, University of Delhi, Delhi; Ms. Héloïse Courty; Dr. Usha Mujoo Munshi, Librarian, Indian Institute of Public Administration, Delhi; Dr. Jagtar Singh, Professor Incharge Library, Punjabi University, Patiala; Dr. B. Shadrach, Founding Chair IPLM; Dr. Dilara Begum, Associate Professor and Chairperson, Department of Information Studies & Librarian (Acting), East West University, Dhaka, Bangladesh, and Dr. A. R. D. Prasad, Professor and Head, Documentation Research & Training Centre (DRTC), Bangalore.

Dr. Kaul in his introduction said that a digital universe of infinite possibilities for libraries was emerging and it comprised the following:

i. The digital universe of the growing ideas and needs of every individual on this earth.

ii. The digital universe of growing information and knowledge resources.

iii. The growing digital technologies to manage the digital universes to make it a unified digital universe.

He said that there was the need to manage these digital universes for growth and development, research, etc and to offer necessary and sufficient information to every individual. Keeping in view the above factors he said that we needed to discuss how digital technology could be used to serve the needs of users, create smart knowledge, offer reference service to every individual and package information user by user; manage manpower to offer these services and manage efficient preservation and archiving of digital content. In response to this introduction the panel made the following suggestions:

1. National Digital Library Policy should be drafted by the government.
2. Parallel digital infrastructure be developed for youngsters in public libraries.

3. There is an urgent need to develop quality human resource for libraries.

4. Digital reference service be provided to the public.

5. Train people to be able to access digital content.

6. Content analysis is essential and should be done by librarians in specialised areas.

7. Surveys should be done to find information behaviours of people.

8. Media and information literacy across the frontiers be developed.

9. Change the mindset of professionals working in libraries. They should learn to unlearn and relearn.

10. Specialised professionals should be associated with training of students in Library and Information Science Departments in Universities.

11. Libraries should become laboratories for Library and Information Science students.

12. The upkeep and relevant use of technology be promoted in libraries.

13. Continuous professional development courses be introduced.

14. Librarians should be trained in curating digital content.

15. International collaboration be introduced for use of technology and disseminating quality content to libraries and their users.

16. Use of technology for offering better service should be intensified.

17. Metadata on every aspect of knowledge be developed using global standards.

18. Resource sharing among libraries through DELNET be further expanded.

19. Librarians should offer quality information not only to the general library users but also to specialists who are doing research or writing assignments.

20. Content should be developed in various Indian languages in libraries; and

21. Efforts should be made to let more and more libraries of all types benefit from vast resources and expertise available through DELNET.

At the valedictory function the Organising Secretary and the Rapporteur-General Dr. Sangeeta Kaul, presented the summary of the deliberations made during the last three days at NACLIN 2017. The special invitee Dr. Nicolas Idier, Attaché for Books and Ideas, French Institute in India, Embassy of France spoke on the occasion and discussed the type of programmes being organised under the Bonjor India festival. The valedictory address was given by the Chief Guest Prof. Lokesh Chandra, former President, Indian Council of Cultural Relations, New Delhi and Director, International Academy of Indian Culture, New Delhi. He stressed the importance of oriental libraries and how these libraries needed to be modernised and managed well. Dr. H. K. Kaul, Director, DELNET, New Delhi gave the concluding remarks. The vote of thanks was given by Dr. Sangeeta Kaul, the Organising Secretary.

NACLIN 2017 was supported by organisations including RRRLF Kolkata, ICMR, INSA, French Institute in India (Embassy of France), Balani Infotech Pvt. Ltd., IGroup Infotech (India) Pvt Ltd, Gale Cengage Learning India Pvt Ltd. and Elsevier.

Looking forward to your presence at NACLIN 2018!
The DELNET Silver Jubilee Lecture was delivered by Dr Neeta Verma, Director-General, National Informatics Centre, Ministry of Electronics and Information Technology on June 30, 2017 at DELNET on the theme ‘Role of Libraries in Digital India’. Prof. M. Jagadesh Kumar, Hon’ble Vice-Chancellor, JNU presided over the lecture. He released the Silver Jubilee documentary on DELNET which was produced by Dr. Lavleen Thadani, followed by the release of the Silver Jubilee publication entitled ‘DELNET : The Milestones in Sharing Knowledge’ by Dr. Neeta Verma. In his inaugural address, Prof. M. Jagadesh Kumar appreciated the role being played by DELNET in disseminating information to the scholarly community in the country. He said that libraries need to promote academic excellence. He observed that as academic institutions are ranked similarly the ranking of libraries should also be done. This would definitely bring competitiveness among the libraries and promote best library practices. He noted that libraries have to take new roles to offer better services in new innovative ways to their users. Dr. Verma began her lecture with the quote from Shri Narendra Modi, the Hon’ble Prime Minister of India: ‘In this digital age, we have an opportunity to transform lives of people in ways that was hard to imagine just a couple of decades ago.’ She said that the vision of Digital India, a programme to transform India into a digitally empowered society and knowledge economy is centred on three key vision areas: (1) Digital Infrastructure as a utility to every citizen; (2) Digital Empowerment of citizens; (3) Governance and services on demand.

She described Digital India as the flagship programme of the Government of India. It ensures that government services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity. She added that it will transform our nation and create opportunities for all citizens by harnessing digital technologies, and it will empower every citizen with access to digital services, knowledge and information. She highlighted nine pillars of Digital India which includes Broadband highways; Universal access to mobile connectivity; Public Internet access programme; e-Governance: Reforming government through technology; e-Kranti: Electronic delivery of services; Information for all; Electronics manufacturing; IT for jobs and Early harvest programmes. Speaking about the use of smart phones, mobile phones and Internet users in India, Dr. Verma affirmed that India has become the second largest market of smart phones

Prof. M. Jagadesh Kumar
in India and from June 2014 to May 2017 there has been a dramatic growth in smart phone users which has risen from 22 crore to 40 crore; mobile phone users from 90 crore to 108 crore and Internet users from 24.3 crore to 50 crore. She said that Aadhar enrolments (Digital Identity) have increased from 63 crore in 2014 to 114 crore upto May 2017. She said that libraries could use a community’s portal to give access to global information, knowledge, cultural and leisure resources. She affirmed that through the resources and services, libraries could create opportunities for learning, support literacy and education, and help shape the new ideas and perspectives that are central to a creative and innovative society. She added that libraries held valued and trusted resources close to people in different social settings. Dr. Verma observed that libraries played an important role in education, especially in the dissemination of knowledge to the public. She acknowledged the role being played by public libraries and said that public libraries offered free access to all as did libraries in most academic institutions. She referred to the information explosion in the present day with particular reference to the digital content in the form of E-books, E-journals, E-reports, etc. She referred to the growth of broadband access in India besides open access and open source content. She commented on how mobile penetration in India could promote digital literacy and the use of social media and stressed that today’s world is a world of information explosion with all types of data. She informed the audience that globally, five exa-bytes of data were being created every day from a multitude of sources, within which Facebook processed 600+ terabytes of data daily; Twitter processed 12 terabytes of data daily besides other social media tools. She said that libraries needed to provide personalised services to people and emphasised that libraries could benefit from cloud computing in four basic ways:

1. Eliminate redundancy across distributed systems
2. Increase ability to collaborate
3. Reduce cost
4. Operate more efficiently and become “greener.”

She also referred to the use of E-Granthalaya library management software developed by NIC. She added that with the transition of libraries towards e-Libraries, many users would also transit to online platforms as physical infrastructure becomes available with the libraries. She said that libraries with proper infrastructure could be leveraged as digital empowerment labs for training and handholding for using digital services.
Expanding Horizons of Libraries: New Opportunities*

Vivek Patkar**

The economy and society at large in the 21st century is expected to be dominated by two things, namely services and information that would be piloted by advances in information and communication technology like the Internet of Things (IoT). In this light it is surmised that the horizons of the library will continue to expand because delivering services and dealing with information have always been the core activities of the library. In parallel, a new subject discipline called the “Service Science” has arisen to further the service sector through new concepts and models. Those can also be gainfully used by the library to enhance its utility. Another important development is the addition of the digital space for the library to project its new services to address the demands of the future generations. This paper is devoted to the discussion regarding opportunities arising for the library to play a commendable role in the forthcoming high-tech milieu by designing new services and managing the physical and digital spaces efficiently. A number of actions like adopting open service design, producing a T-shaped library and information science professionals and conducting transformative service research are outlined to take advantage of these openings.

1 Introduction

Thanks to the rapid developments in the digitally operative information and communication technology (ICT) in the last few decades, all the facets of the information sector have undergone deep-seated changes. That is, generation, search, acquisition, processing, dissemination and preservation of information in the digital form dominates the scene and more and more information is now produced and handled in the digital form alone. The library, which all along had played a pivotal role in the print-based information management operations, is thus finding it necessary to assimilate this new disruptive change to remain relevant. Being a resilient entity, it is trying to cope with this storm and re-charting its role in the ‘digital’ environment. The rise of the electronic library, virtual library, digital library and hybrid library is undoubtedly the manifestation of this effort.

It is however notable that the new ICT products are accelerating the service sector of the economy and the service sector has globally surpassed the agriculture and industrial sectors in terms of value addition and wealth creation. This, in one sense, is viewed as a boon to the library because it is basically a service providing organisation. It is imperative that if a pragmatic approach is employed to adopt and implement suitable ICT-driven processes the library can sustain and enhance its standing in societal affairs with renewed vigour. In this background huge opportunities are seen for the library if it can make a difference as we enter the parity economy era, where most of the information services can be seen as equal.

Changes in the library functioning can be shaped by many forces in practice. For instance, the library’s future collection development can happen by demand-driven acquisition (DDA) of the material as per the users’ exigency (Carr 2014), or by print-on demand model. Expanding horizons of the library can therefore be perceived from various angles as shown by a sample of dimensions in Figure 1. This is in line with the Fifth Law of Library Science that had originally projected ever increasing books, physical infrastructure, staff and readers in the library (Ranganathan 1931). Another significant effort in this direction is the initiative by the American Library Association (ALA) to form a ‘Centre for

---

* Invited paper presented at NACLIN 2017
** Independent Researcher, Mumbai and former Professor, ICFAI Business School, Mumbai
the Future of Libraries’ in 2013 precisely with the idea of assessing the wide-ranging trends that could collectively impact the library sector (www.ala.org/libraryofthefuture).

In this paper however only two dimensions across all types of libraries are considered. One is the service and the other is the space. Advancement of the library services will keep pace with the changing demands of the users who will arrive on the scene with different perspectives and skills. For example, they will arrive with new kinds of media literacy and should be served with the matching library services and options. In that situation evolving technological developments will also play a crucial role in sculpting the role and performance of the library in its given sphere of clientele and mandate.

With this objective the evolution of the service sector is presented with the help of a few models in Section 2 of the paper. It also highlights the important aspect of sustainability of the library service. Development of the library as a service system and how “Service Science” that has newly emerged can help in this regard are discussed in Sections 3 and 4, respectively. Section 5 is devoted to the upcoming powerful technology, namely, the Internet of Things (IoT) with possible applications in the library. In Section 6 the digital and physical space management by the library is discussed in detail. Reorganising the library structure to address the forthcoming challenges in the framework of ‘new institutionalism’ is outlined in Section 7. The next two Sections suggest various actions by the library to harvest the arising new opportunities.

2 Services Evolution

The service sector in general has evolved extensively over the last few decades. Several models have characterised that development. A brief review of them is made here. It can guide the future library services because providing relevant documents and access to information both in the print and digital form constitute the core service of the library. The sustainability of information service is another major aspect that is also addressed.

2.1 The IHIP Service Model

Since the service sector has become the major contributor to the economy of most countries a number of definitions or descriptions about the concept of service have arisen in the fields like banking and finance, marketing, tourism, health and information technology. It is only natural that a slight variation exists in detailing the service considering the specific features of the field under consideration. In short, services are application of skills, knowledge and technology for mutual benefit among the involved stakeholders.

A service can be ascribed according to its main attributes. For example, the following IHIP scheme is suggested to describe the activities involved in service provision (Lovelock and Gummesson 2004):

I : Intangible (i.e. a transaction incapable of being perceived like physical good exchange, which is experienced by actual touch).
H : Heterogeneous (i.e. a transaction is unique every time even with the same user and varies with the user type).
I : Inseparability (i.e. user and provider are simultaneously present to complete the transaction).
P : Perishable (i.e. produced service cannot be stored and is lost if not used and on the other hand, if the available capacity is not used now it will not be available in future).

However, due to advances in the
ICT some of the IHIP service model attributes stated above no longer hold true. For instance, the library Web OPAC can be searched by the user from any place and time and independent of dealing with the library staff in person. A client-based relationship that is, the contact factor, which is traditionally considered to be of great significance in promoting the service patronage is also losing its importance. The ICT-based service transactions have ushered a new delivery and consumption pattern.

That is why a different ‘customer-supplier service’ or ‘Uniform Services Theory’ model is proposed. Here the involvement of users in production processes by giving inputs to the supplier is shown to be more suitable in practice (Sampson, 2001, 2007).

2.2 Service-Dominant Logic Model

In the light of the techno-economic changes the concept of service-dominant logic is now used to view the service. To maintain and increase well-being and viability, the user and provider involved in the service are interdependent and both can benefit by service exchange is its basic premise. The service-dominant logic is founded on the following three ideas (Vargo and Lusch 2004; Lusch and Vargo 2014):

1. The user is the co-producer of the value of the service transaction.
2. A long-term relationship with the user is helpful in customising the service with value addition.
3. The user determines the quality maintenance of a service and designing new services.

The ICT, particularly the social media platform plays a major role in this changed scenario. Under the service-dominant logic view the library has to monitor the comments and suggestions about its services expressed on various social media platforms, and plan refurbishing its services periodically. It can also make use of the media to announce its new services apart from seeking ideas for upgrading the existing ones. The massive digital-networked forum is driving such a service monitoring process.

This model is still evolving and the LIS professionals can contribute to it.

2.3 Self-Service Model

The concept of self-service is at least one hundred years old. Self-service grocery shopping started in 1916 in a store named Piggly-Wiggly in Memphis, Tennessee, USA. Self-service cafeteria is another old example. As the electronics-based technology in general advanced during the 1970s, the idea of emergence of a ‘self-service’ society gained popularity. It was, for instance, envisaged that more efficient, cheap and reliable services would be the demand and the likely advances in automation, intelligent electronics, and computerisation will fuel the process of services decentralisation and self-service promotion (Zeleny 1979).

This expectation has come true in quite a few sectors even in India as a result of the multifaceted ICT developments. A massive transformation in service delivery in travel, tourism and retail shopping to name a few sectors has come about. Many self-service technologies (SSTs) are supporting it. They can be telephone-based (for inquiry), Internet-driven (for exploration and transaction) or self-help type (for distance learning). SSTs provide channels to users to produce a service without direct involvement of any person from the supplier side.

Automated teller machine (ATM), Internet banking, online auctions, E-learning and the global position system (GPS) are a few prominent SSTs. The user gets greater access and control, while the service provider can use its human and other resources so saved, to further developmental activities besides the services maintenance tasks. Moreover, a quality measurement framework using the SSTQUAL scale is developed to assess the performance of SSTs by considering the parameters of functionality, security, design and customisation (Lin and Hsieh 2011); (Considine and Cormican 2016).

In line with this thinking many libraries have installed technological contrivances for activities like self-operated photocopied of the desired library documents and self-charging and discharging of the library books by the users. The library should expand this approach to make its services more attractive for the users and get involved with the library more often. For that matter some of the traditional library practices may have to be modified to suit the capabilities of the user (Anderson 2006; Mossman 2006). Making a list of library services and activities and periodically mapping them with the emerging SSTs that can be easily operated by the users and staff would be helpful in this regard. Suitable training and orientation programmes are to be organised regularly to reduce the anxiety on the part of the users to handle the SSTs provided by the library.

2.4 Super Service Model

In contrast to the self-service model the provider can be engaged by the user to provide a service called super service. In this case the service provider performs certain activities that are normally done by the user, like a chef coming to the house to cook the dinner or an airline picking up the passenger from home. Cloud computing service is basically designed in this fashion where computing is delivered as a service
and not as a product. Various models are available in this setting.

Compiling a bibliography for a given topic is a traditional library service, whereas, formatting it for the specified end-document for the user is a super service, for example, in the library environment.

The evolution of the service as shown in Fig. 2 holds quite well for the library and information sector in general.

![Fig. 2 : Shift in the Service Delivery](image)

2.5 Service Sustainability

The importance of sustaining a service should not be undervalued. It is proposed that a sustainable service has two values. One is the core value and the other is the super value (Wolfson et al. 2012). These are created jointly by the user and provider in the process. It can be viewed as a combination of self-service and super service in general. The offering of free plugging facility and power supply or wi-fi connectivity by the library can encourage the users to bring in their own digital devices and thereby the pressure on the corresponding library resources is reduced illustrates this idea in the library context.

In fact, sustainability as a service is the emerging paradigm (Wolfson et al. 2010). The focus moves from the economic consideration to the environmental and social benefits. This is in line with the general sustainability perspective where the whole process is expected to be viable holistically and not alone in its economic aspect. For the LIS sector offering sustainable information infrastructure and services to all types of users is of prime importance. A practice like pricing out certain sections of the users should therefore be curbed is one important implication in this regard (Nathan 2012). Moreover, the ease in technical access, environmental-friendly processes and preservation of digital information for a fairly long term will need careful consideration. The concept of the green library is also incorporated in this thinking.

With reference to the digital information-based services, fresh issues like digital assets management and digital heritage conservation would be of a vital nature for sustaining the scholarship in future in many subjects. Expressly, the economic, environmental and social aspects of information sustainability are to be examined and addressed adequately (Chowdhary 2013, 2014). Each library has to plan and evaluate its services from this viewpoint.

3 The Library as a Service System

A service system is basically a combination of people, technology, information and organisation. It is viewed as a dynamic configuration that delivers value to the user in different sectors like education, research, business and government (IfM and IBM 2008). A service system is divided into three broad categories: i) Meeting basic needs for survival, ii) Promoting developmental activities, and iii) Organising efficient governance. Who are the users and what do they think and need, what kind of technology and infra- and super-structure is suitable, what genre of information would address the users’ needs and what is the best way to organise these components to deliver the service optimally are the questions deliberated for a service system design in practice. With globalisation and ICT proliferation the choices for each of these elements are undoubtedly constantly evolving.

So, for the library a typical service system can be framed incorporating the aspects given below:

- Number and type of users (judged say by their literacy level)
- Kind of hardware and software infrastructure (affordable and easy to use)
- Form of information (pertinent production mode and delivery facilitation format)
- Space and staff grouping (physical or digital space and suitable human resource allocation)
- Risks involved (likely violation of the copyright law or information wastage)
- Safeguards (like ‘view only’ access)
- Value addition (like ‘also see’ type additional resources guidance)

This concept is now extended to what is called holistic service systems where completeness, independence and specified duration of the service for the identified group of users are ensured. Libraries can plan their operations on these guidelines. It goes far beyond normal services emanating from information management (Grandbois 2016). A landmark study of one public library service system design in Canada illustrates the importance and richness of this approach (Bouthillier 2000). The study describes how the promotion of library services is closely linked to the culture, history and social development in the surroundings in which the library is located.

In this direction a new approach called ‘apomediation’ for extending the library services to the user is also suggested (Kwanya et al. 2015). Here, providing the information and its varied experiences to the users in a subtle way is the key. As a strategy, apomediation stands between the
extremes of the intermediation (i.e. positioning between the user and resource) and disintermediation (i.e. standing detached from the user). It means standing by the user and supplying the filtered information or the relevant sources without the user seeking them explicitly. To get information validated by the experts before passing onto the users can be a useful extension to this service.

4 Service Science Approach

Historically, most of the developments in natural science and associated technologies took place to understand the natural sources like metal ores, water and gases and develop processes to harness them optimally. The aim was to produce a variety of goods for consumption by an individual or industry. Since this manufacturing dominant economy is largely replaced by the services economy, the establishment of “Service Science” has happened quite recently that is, in 2004. It envisages a multi-disciplinary approach to study various components of a given service.

Undoubtedly this development is of great significance for the LIS sector, which is primarily devoted to the services provision. For the library, information is the basic resource to deal with. It is therefore important to draw upon the advances in the service science to adopt for the library and information services organisation and break new grounds. For instance, the issues to be explored by the library could be:

- How to save time in information search and delivery?
- How to use data mining, text mining and Web mining techniques and technology to acquire better and deeper knowledge?
- How to design and use service-oriented architecture (SOA), social media as a service (SMAAS) and Web-enabled services to enhance value-addition to the user?
- How to measure perception about the library and its services as expressed by the users say through social media?
- How to create and maintain a service culture both in offering services outside and inside the library premises by promoting learning, mentoring and developing focused teams?
- How to design service that responds to emotional needs and enhances service experience to the user?
- How to measure the value of service and service productivity more truthfully by developing suitable metrics?

Attention is drawn here to a recent Indian study using this approach (Date and Mallik 2017). It dovetails how systematic development of team building, training and promoting embedded librarianship within the parent corporate organisation have contributed to the conversion of information into intelligence on a regular basis. This is supporting the diverse business segments of the company quite gainfully. As a result the conventional library is transformed into the ‘information resource centre’ (IRC) in the true sense and it is valued and well supported by the management.

Similar efforts are necessary by the other types of libraries to implement relevant services and practices. That is the way to sustain in the new era.

Since service science combines several disciplines it needed a new academic home. To that end development of information school or iSchool has taken place in a few quarters. The traditional LIS departments should take a closer look at some of the existing iSchools to draw upon the in-depth study of the interaction between information, technology and people pursued in their curricula. Service science is expected to benefit and advance by the studies and researches by iSchools (Lyons 2010). One should not overlook the fact that the library has been studied from some of the service science techniques for a long time, especially since the seminal study of the MIT Library undertaken by Philip Morse (Morse 1968). More studies of that type are essential with regard to Indian libraries.

5 The Internet of Things (IoT) Implications

The next ICT advance round the corner is called the “Internet of Things” (IoT) or “Responsive Technology”. It is basically a seamless combination of embedded intelligence, ubiquitous connectivity and deep analytical insights that creates unique value for organisations, individuals, and societies. The ability of tagging and tracking of objects by RFID like technologies, accurate sensing by sensors, miniaturisation of gadgets by nanotechnology applications and development of entities possessing computing power akin to thinking are the major developments of the IoT that have been reported. More advanced products would follow in due course in the form of haptic devices.

IoT will bring about far-reaching changes in the perception about the human and object relationship. For example, body area network (BAN) flows to provide an optimal person specific hearing aid capability, new local area network (LAN) supplying a smart meter to monitor the use of all the household or workplace utilities and very wide area network (VWAN) supporting consumption of most of the...
services from any location are envisaged (Srivastava 2011).

Taken to its roots, the IoT translates everything into information systems. This naturally implies managing the information which has been the core business of the LIS profession. At least, the library has to start thinking about the IoT application avenues to upgrade the service experience to the user say of a document or piece of information. Sending the description data by the Internet to produce it physically using the 3-D printing technology can be one such service.

IoT implementation offers the following major challenges:

1. Being a wireless sensors network (WSN) connectivity, basically an IoT is not something that is available off the shelf but is to be created and scaled according to the demand and local situation.

2. Building an IoT application requires the selection and integration of multiple components like sensors, communication modules and networks.

3. Turning the collected data into something useful involves cloud computing, analytics, integration with core systems and process changes.

The third point in the list above needs careful attention because as more and more persons and activities are linked through the IoT system apart from the rising social media, the volume of data that will be generated is mind boggling. “Big Data” analysis that goes by the term “Analytics” will assume prime importance in this milieu. Its predictive and prescriptive powers offer immense potential to improve and design services in any field.

In the library, for example, it can be applied to inventory management tasks that usually involves extensive manual work. An IoT solution can automate this process through intelligent bookshelf layouts and a layered application framework. It is also envisaged that the library shelves can be made responsive to users’ preferences and circulation history to promote relevant content to them in real-time (http://acrl.ala.org/techconnect/?p=474). Furthermore, the library can keep track of the number of visits to different parts of the library during specific time periods; items consulted by the users by such technology embedded monitoring systems. Several strategic decisions about the library space allocation and revising the rules to help performing more creative operations can be helped by analysing the digital footprint data so collected.

6 Space Dimension

6.1 Space Continuum Implications

The other dimension of the library expansion is in the space. Traditionally, making the best use of the available physical space to present an ambient environment to the users and visitors and the front and back office staff was the focus. Now, in addition, it involves competent handling of the digital or virtual space. That means the library has to be actively present in such a space whose creation is propelled by the ICT headways leading to social media and allied platforms. Such digitally created space is bound to magnify and diversify in future.

In fact, as shown in Fig. 3, a space continuum has emerged with different combinations of physical and digital spaces (Milgram et al. 1994).

Here the territory between the extremes of real and virtual environment is called mixed reality. It has two major elements, namely augmented reality (AR) where virtual supplements the real and augmented virtuality (AV) where real supplements virtual. This shows how the communication, presentation and actions are happening with the help of advances in the ICTs. Augmented reality in particular offers an experience where the users are aware of computer graphics as a medium. Virtual reality, which is a part of cyberspace, is a computer simulation of the real or imaginary system by which users can perform operations in virtual spaces and obtain or experience effects in real world.

Intensive study of virtual reality has led to the following rules of virtuality (Woogler 2002):

1) The impact of media and technology on people depends on their demographic and socio-economic status.

2) Risks and fears in respect of new media and technology are not evenly distributed socially.

3) Advancements in media and technology extend rather than supersede existing activities in reality.

4) The more virtual, the more real it becomes.

5) New media and technology lead to the tendency of creating new kinds of localism rather than furthering globalisation.
All these developments imply adoption of different strategies by the library for designing and monitoring its digital technology-based services. A few successful strategies are available to engage the library users through social media (Ramsey 2014). There is a shift from the physical user or visitor to the remote user of the services without ever visiting the library physically. He or she would like to have hyper-mediated experience of the library document or a specific information query session with the library staff through augmented reality devices and systems. A holographic image of such an entity would be provided to the distant user in a real-time mode. This possibility was named “Telepresence” (Minsky 1980) and is now within the realm of realisation. It is considered more effective than the video-conferencing because a complete image of the remote real or virtual entity is reproduced at the user’s location that looks natural and technology intermediation is not felt.

It follows that the library will have to design its digital spaces starting from the website to a higher augmented reality spaces meticulously. For instance, creating virtual exhibition of the library collection like rare books, manuscripts, maps and other artefacts periodically would be welcome. To provide a sense of direction, variable navigation schemes and at the same time to support the creativity on the part of the user in accessing and interacting with such information is therefore expected. Numerous technologies are available for such purposes and they are constantly evolving. Fortunately, basic principles to guide such a design process are available (Story 1998). They are: a) equitable use, b) simple to use, c) flexibility in use, d) effective in use, e) error tolerant, f) needing minimal physical efforts, and g) manipulation by the user should be permitted. However, the library will have to avoid the so-called ‘P.T. Barnum’ effect whereby showmanship dominates the scholarship (Beacham 2011). A proper balance would be necessary to maintain the credibility of the library in all such endeavours.

Attention is also drawn to the key principles propounded by the London Charter for the computer-based visualisation of cultural heritage (http://www.londoncharter.org/). According to them computer-based visualisation should be used only when it is most appropriate, the sources used for it should be properly documented to clarify the context and strategies to preserve it for future access, use and understanding to build cultural heritage should be in place (Denard 2009). These principles are useful for designing digital spaces and navigation of knowledge by any institution.

6.2 Reorganising the Physical Space

‘Centralised Information Commons’ means putting the reference desk and materials near the computer workstations and thereby creating one central area for research and inquiry and ‘Social Gathering Centre’ means provision of exclusive space for the interaction among the users and with the library staff can be considered as two guiding principles for reorganising the physical space of the library. If a new design can assemble the physical space, the social space and the information space together to enhance collaborative learning and other activities, then the whole library perspective is transformed to serve various categories of users pointedly. Flexibility is the key in this respect that is, to be able to rework the space suit the demand without disturbing the other users and library operations. Installation of location intelligent technologies can facilitate the navigation within the library and help the users.

Some public libraries have redesigned or refurbished their interior to create possible spaces for providing the non-traditional services like running computer training courses, advice centres, careers guidance, drama and band practice rooms and homework centres without compromising the security and neutrality. People of all age groups prefer visiting them quite often because their varied needs are addressed by such libraries and they see them as cooperation-fostering places. ‘Information Commons’ or ‘Learning Commons’ spaces, for example, are provided in several school and higher education libraries abroad. These collaborative spaces facilitate information consumers to interact with the library and information science professionals directly.

The library space can be viewed as a hierarchy of four needs, namely access, use, sociability and comfort. A space which combines attributes from all these levels would be an ideal learning space. However, the library will have to ensure that different privacy and security levels are provided in its physical and even in digital space. The library space offering collaboration, creation and contemplation is the key for binding the users to the library.

A framework emphasising the following design aspects is recommended for organising and assessing physical space in libraries as well as their digital installations, E-branches, and website-based interactions (Norman 2004; McArthur 2015):

- Visceral (first impression about the appearance or surroundings),
- Behavioural (effectiveness of use), and
- Reflective (building a long-term relationship).

In short, combine usefulness and
elegance in organising physical and digital spaces is the message.

7 New Institutionalism Approach

A study of an institution from a sociological view called the 'new institutionalism' has gained currency of late due to economic liberalisation and globalisation. According to its theory since almost every institution now gets influenced by the other institutions that are similar, complementary or remotely connected, it becomes necessary to assert its status periodically. In essence the institution has to open itself to new working methods and become a multifunctional forum. This underlines the need for the library to re-establish its legitimacy within the world of institutions that would be dealing with different aspects of information. So the library will have to self-examine its role and functions in the framework of new institutionalism (Montmann 2009).

To that end the library will be required to reflect and respond to the shifting techno-economic landscape and wider information environment. On the one hand creating novel encounters of the information to the user and on the other hand revising the library governing rules and regulations and organisational structure are thus expected. For example, a user may wish to have ‘experiences’ like rafting a river or going into space rather than issuing out books and that should be supported as far as possible by the library. This is because to create meaning for users by the library is implied by the new institutionalism.

It is fancied that with the increasing presence on the mobile phone, Web World and several social media we are extending ourselves throughout the virtual space. In other words, we are living in physical and virtual worlds at the same time. We have become ‘phyrtual’ (Kuksa and Childs 2014).

This development needs to be considered by the library to redesign its operations and services in line with new institutionalism.

An idea of an M-Library providing customised information services to the user on his chosen mobile device points to new styling of the library operations (Ally and Needham 2013). Establishment of a digital heritage archive will also be a part of the proposed library reshaping the net under this approach.

8 Select Actions

8.1 A Service Development Programme

It is clear that the library services will have to innovate in the new knowledge-driven economy and intensely competitive service environment. In that context a recent survey-based study in service science identified 12 priority areas for the research and training in general is pertinent (Ostrom et al. 2015). Amongst them the following are considered more relevant for library services:

1. Affecting service modernisation
2. Leveraging service design
3. Understanding value creation
4. Enhancing the service experience
5. Drawing on technology to advance services

Obviously, the above calls for combining the research in two main sectors, namely service design and information management to advance the LIS practices. It is high time that an open service design with an open innovation process is implemented (Chesbrough 2003). That means the user is involved in designing the library service right from the beginning. Trials on this line by the libraries in India to gain more insights are recommended.

8.2 A New Profile for the LIS Professional

What is envisaged in the forthcoming information and knowledge economy is “T-shaped” professionals. Such professionals have a deep knowledge and related skills in a single field that is represented by the vertical bar of the alphabet T, whereas the ability to collaborate with experts across several disciplines and to apply knowledge in areas other than one’s own is represented by the horizontal bar of the T as shown in Fig. 4. In other words, T-shaped people have both depth and breadth in their skills. They are also known by terms such as Versatilist, Generalising Specialist, Technical Craftsperson, Renaissance Developer and Master Generalist.

In case of the LIS professional the vertical bar represents traditional skills and the horizontal bar represents the capacity to interact in the language of a broader range of disciplines (Bell and Shank 2007).

Currently most of the LIS education and training institutions in India are producing I-shaped graduates or postgraduate students while the need would be to have T-shaped professionals who are competent in communication and collaboration with people from different disciplines too. In particular the ability to manage information from multiple sources, work in the inter-disciplinary internal and external teams, contribute to organisational activities by innovative ideas, and communicate with all types of users’ need for inculcation.

![Fig. 4 : T-Shaped LIS Professional](image-url)
To develop suitable instructional courses and implement them competently to produce such T-shaped LIS professionals is a huge challenge for the institutions engaged in the LIS education and training.

T-shaped information scientists is one more opening. In a globally interconnected and constantly changing world driven by smarter technologies, the new LIS professionals will have to build their careers by re-skilling and up-skilling.

8.3 Transformative Service Research

As the name suggests, the idea is to transform the service from the current level to address the new and broader issues coming up in future in any sector. In particular, the transformative service research (TSR) examines the social and ecological consequences of the delivered services in the field that are in addition to the tangible direct benefits to the users (Ostrom et al. 2010). A study of connection between service and different aspects of well-being of the individual and community at large is its distinguishing feature (Kuppelwieser and Finsterwalder 2016). Strategies emanating from the TSR covering the quality, productivity and delivery of the library services will therefore be most effective.

In this framework issues like increased access to valuable sources and services, joint design of new services and evaluating the experiences of the services offered are some of the topics that need investigation in the emerging Indian library setting. Designing measures to reduce the stress caused by the information overload, for example, is a fruitful area of research that falls under the TSR. How to reduce the carbon and greenhouse gases (GHG) emissions caused by the library operations and users’ inefficient information handling style is another aspect worth investigating. Suitable library training programmes can emerge by such studies.

9 Additional Recommendations

The following action points, not necessarily in that order, are to be considered in addition:

a) To develop the art of apomediation among the library staff to build a healthy relationship with users.

b) To decide what part of the library operations is to be considered for crowdsourcing (both non-paid and paid) instead of conventional paid outsourcing.

c) To plan and provide facilities and services for special users, that is those with different abilities.

d) To evaluate the performance of self-service avenues provided by the library through user feedback and independent monitoring.

e) To promote outreach contributions by the library staff, say by encouraging them to be writers for Wikipedia and a multitude of other social media to increase the visibility of the library collection and services.

f) To design and implement sustainable digital preservation strategies and acquire and manage the digital assets that would be vital for academics, polity and research in the forthcoming era.

g) To design strategies to use robots and IoT products in the library for the optimal division of the work.

10 Conclusion

It is clear that humanity will face an information and knowledge burden of enormous magnitude in the coming decades. There will certainly be a rising demand to sieve and manage it from all sections of the library users. That is why the library has an opportunity to expand the boundaries of its operations and services to match those expectations. To undertake these responsibilities the concepts, models and technological tools from the service science offer a useful support is what we have seen above. It is therefore suggested to explore the relation between the library and information science and service science to come out with new designs for the library to help elevating its services and delivery systems in the new digital environment. Shaping the library as a service system should get due disciplined consideration.

Sight should not be lost of the fact that the capability of the technology to manage the digitally born material like efficiently indexing the full content will be far greater than the human professional. That means emerging semantically based systems, say under the Web 3.0 and its further versions would be able to make the content searchable, analysable and functional automatically and thereby the core traditional work of the LIS professional is likely to be eroded (Weinberger 2007). Under such circumstances in order to increase the share in attention the library will have to intensify its visibility (e.g. disseminating information within and outside the library by library’s Twitter account) and unique capabilities in serving both the online and physical patrons (e.g. assisting the user personally in formation of a proper search query, a service which no search engine provides).

In the forthcoming epoch handling real and virtual spaces and converting...
them into creative domain by the library is also seen as a crucial task. The library can perform the act of leading the digital citizenship and thereby sustain its importance.

It is submitted that broadening the horizons of thinking supplemented by fresh insights can help an LIS professional to seize the opportunities that are forthcoming with the advancing technologies. All such actions are necessary to promote the library as an important institution and LIS as a thriving profession. The emerging era of the IoT and cognitive computing, for instance, where the computer is embedded with more and more processing power to perform the tasks of engagement, decisions and discovery of new things offers exciting possibilities. That means humans and computers will jointly achieve the solutions that neither can achieve alone. This combined human-machine intelligence can be productively harnessed for raising the library service system performance in the expansive information field and support the culture of lifelong learning that would be critical in the new age.

References


23 Kelly Lyons, ‘Service Science in iSchools,’ iConference 2010, Urbana-Champaign, IL, February 3-6, 2010.


45 Adi Wolfson, Dorith Tavor and Sholmo Mark, ‘Sustainability and Shaping from a ‘Person to Person’ to a Super- or Self-Service,’ 2012, httm://www.webcitation.org/6abM38dkp.


DELNET - The Milestones in Sharing Knowledge: Celebrating its Silver Jubilee

1 The Beginnings

DELNET is a major Resource Sharing Library Network in South Asia connecting more than 6000 libraries. It was started on the recommendation of a panel discussion organised at the India International Centre on January 7, 1988. The Delhi Library Network (DELNET) was established to promote sharing of resources among the libraries in Delhi by collecting, storing and disseminating information and by offering computerised services to users. DELNET began its functioning as a project at the India International Centre Library with the initial support from the National Information System for Science and Technology (NISSAT), Ministry of Science and Technology, Government of India. In 1992, DELNET started receiving financial support from the National Informatics Centre, then under the Planning Commission, Government of India. DELNET was registered as a Society under the Societies Registration Act of 1860 on June 30, 1992. It began serving libraries and their users in Delhi with success. Soon demand grew for accessing DELNET resources from libraries outside Delhi and outside India.

Libraries found DELNET’s resources and services very useful. As the scope and coverage of DELNET expanded, on popular demand, on September 13, 2000 its name was changed from Delhi Library Network (DELNET) to DELNET – Developing Library Network by the Registrar of Societies.

The union catalogue resources of DELNET began growing rapidly as did its membership. DELNET, with its determination to serve many users and researchers in and outside the country through libraries, have been making concerted efforts to improve the infrastructure and information facilities at DELNET. Perfecting its technologies and upgrading them from time to time has been done to serve a diverse range of users and their simple and complex demands. In 2017, DELNET offers access to more than two crore and fifty lakh catalogue records of books, besides another half million records of periodicals, articles, theses and dissertations among other resources including E-books and E-journals.

2 Objectives

DELNET was initially registered as a Society under the Societies Registration Act of 1860 as Delhi Library Network (DELNET) with the following main aims and objectives:

i. To promote sharing of resources among the libraries in Delhi by developing a network of libraries, by collecting, storing and disseminating information and by offering computerised services to users.

ii. To undertake scientific research in the area of information science and technology, create new systems in the field, apply the results of research and publish them.

iii. To offer technical guidance to the member libraries on collecting, storing, sharing and disseminating information.

iv. To coordinate efforts for suitable collection development and reduce unnecessary duplication wherever possible.

v. To establish/facilitate the establishment of referral and/or research centres, and maintain a central online union catalogue of books, serials and non-book materials of all the participating libraries.

vi. To facilitate and promote delivery of documents manually or mechanically.

vii. To develop specialised bibliographic databases of books, serials and non-book materials.

viii. To develop databases of projects, specialists and institutions.

ix. To possess and maintain electronic and mechanical equipment for speedy communication of information...
and delivery of electronic mail.

x. To coordinate with other regional, national and international networks and libraries for exchange of information and document.

3 Building for DELNET

Jawaharlal Nehru University (JNU) had allotted one acre of land to DELNET for its building in its mini campus in 1994. In 1997, we selected M/s. C. P. Kukreja and Co. who were also the official architects of JNU. In May 2001 when we wrote to JNU and appraised them about our plans to construct the building at the earliest and requested them to help our architects in putting up fence marks for identification and the development of the land for construction purposes, the University informed Director, DELNET that JNU had identified another site on Nelson Mandela Road for the construction of the building for DELNET. DELNET took possession of one acre of land on the new site identified by JNU on December 21, 2001. On December 23, 2002 the foundation stone for the construction of the building was laid by Hon’ble Shri Jagmohan, Union Minister for Tourism and Culture, Government of India. Dr. Karan Singh, Hon’ble Chancellor, Jawaharlal Nehru University presided over the ceremony. Among the speakers at the function were Shri N.N. Vohra, Director, India International Centre, Shri Soli J. Sorabjee, President, India International Centre, the late Prof. M.G.K. Menon, Trustee, IIC; Dr. N. Vijayaditya, Director-General, NIC; Prof. G.K. Chadha, Vice-Chancellor, Jawaharlal Nehru University, among others.

Owing to limited funds available for the construction of the building, Mr. C.P. Kukreja, the architect agreed to tailor the work and construct the building in phases and take his fee after sufficient funds became available to DELNET. The Department of Culture, Ministry of Tourism and Culture, Government of India sanctioned Rs. one crore for the construction of the DELNET building. We are indeed grateful to the Department of Culture for the support for a very genuine cause of offering information to students, teachers, researchers and the public. Our thanks are due to Shri Jagmohan, the then Hon’ble Union Minister for Tourism and Culture for his vision and support. The architects M/s C.P. Kukreja & Co., under the direct guidance of Mr. C.P. Kukreja prepared the architectural plans and estimates for the first two floors of the building. Mr. Rajesh Pandita of C. P. Kukreja & Co. supervised the construction work along with Shri K. D. Saddi, the former Chief Engineer of JNU who after his retirement began advising us on construction-related issues on the building.

Work on the building started with the construction of the road from Nelson Mandela Marg to the site which was rocky in nature. Tender notices were issued and the builder was selected. While the plans were approved for four floors initially by DDA, we decided to construct two floors in each block, viz. the Administrative Block and the Hostel Block. The Administrative Block has a Conference Room, Training Centre, Meeting Room, Electronic Library and Recording Room on the Ground Floor, while on the First Floor and other floors space for offices, Board Room, Server Room, etc. was planned. The Hostel Block included the facility for Dining Hall/ Multipurpose Hall, Lounge, Committee Rooms, Store Rooms, Pantry, Kitchen, Director’s Flat, fifteen double rooms, etc. The proposed covered area on the Ground Floor is about 960 sq. m. and about 870 sq. m. on the First Floor.

The Governing Board of DELNET expressed their gratitude in 2005 to the Board of Trustees, the President Mr. Soli J. Sorabjee and the Director Mr. N.N. Vohra for granting permission to DELNET to function from the IIC Library until October 6, 2005 when DELNET staff shifted to its building on the JNU campus on Nelson Mandela Road. IIC’s support has gone a long way to establish DELNET in its present form which is now vibrant and holds promise for the users of information in South Asia.

DELNET completed 25 years of its existence on June 30, 2017. The Silver Jubilee Year celebrations commenced on June 30, 2017 and will continue until June 30, 2018. On this important occasion, we are pleased to give you an overview of DELNET’S activities.

4 Finance

In the initial years, DELNET functioned in the project mode with the project grant from National Information Systems in Science and Technology (NISSAT), Ministry of Science and
Technology till 1996. We received a project grant from the National Informatics Centre of the Ministry of Communications and Information Technology from 1992 to 2006. The annual membership fee collected from member-libraries has been the main source of financial support to DELNET. We are indeed grateful to the National Informatics Centre (NIC), Ministry of Communication and Information Technology, Government of India for the technical and financial support it gave to DELNET periodically. We are thankful to Dr. Neeta Verma, Director-General, NIC and former Directors-General of NIC including Dr. N. Seshagiri, the founder Director-General of NIC, Dr. N. Vijayaditya and other officers of NIC including Mr. R.S. Mani for their support, guidance and help from time to time.

5 The Government Recognitions

5.1 DELNET as a SIRO

The Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology, Government of India recognised DELNET in 1993 as a Scientific and Industrial Research Organisation (SIRO). This recognition was extended up to March 31, 2004.

5.2 The Working Group Report of the Planning Commission

The Working Group on Libraries and Informatics of the Planning Commission for the Ninth Five Year Plan (1997-2002) recommended as follows:

"Among the different city networks, it has been found that DELNET has emerged as an operational library network in India with 60 libraries in Delhi and six states as its members. It has developed online Union Catalogues of books and periodicals. It is recommended that DELNET be supported to create a National Database and develop on the OCLC pattern covering all subjects."

5.3 Report of the National Knowledge Commission, 2007

The National Knowledge Commission in its report entitled Libraries – Gateways to Knowledge published in February 2007 recommended that networking of public libraries should be undertaken in a phased manner. Out of about 54,000 public libraries existing in India, DELNET should network about half the public libraries in three phases. The implementation of the recommendations are yet to be approved by the government.

6 Membership

6.1 Overview

Access to DELNET resources and services are available at nominal membership charges which are annual in nature. Institutions/libraries that need to use it should become members of DELNET. The membership of DELNET is based on a few important guiding principles:

i. An institution desiring to use DELNET resources and services should have a library, however small it may be.

ii. All institutional members of DELNET, small or big pay the same annual membership fee besides the same one-time admission fee.

iii. Each member-institution enjoys equal rights to access information and use DELNET resources and services.

iv. Each library of a member-institution has to share its catalogue information and library resources with other member-libraries of DELNET. And, for this purpose it has to send its catalogue resources to DELNET for merging them into its union catalogues, union lists and other databases.

v. DELNET makes efforts to keep its annual membership fee as low as possible in order to help more and more institutions to benefit from its resources and services. This is for information that DELNET did not increase its membership and ILL fee since 1999, except it merged ILL and membership fee in 2015. Thus the annual institutional membership fee of Rs. 11,500 per year and one-time registration fee of Rs. 5,000 has not been increased. The GST is applicable since July 1, 2017.

6.2 Membership Growth

DELNET’s membership grew slowly and steadily after 1992 but since 2011-2012 it increased substantially. The following chart describes the yearly growth in its membership. It stands at 6045 on December 31, 2017.
6.3 The Uniform Spread

The membership of DELNET is very promising in nature as it covers different types of libraries and diverse subjects the libraries specialise in. It also has a uniform spread in different parts of India. Institutions from eight foreign countries also use the DELNET services.

6.4 Membership Benefits

The following are the benefits the institutions/libraries get after becoming members of DELNET:

i. Access to selected international full-text journals in various fields, including the Arts, Science, Commerce, Education, Social Sciences, Management, Engineering and Technology, Dental and Medical Sciences.

ii. Access to more than two crore and sixty five lakh catalogue records of books, journals, articles, etc. with the facility to borrow books on Inter-library Loan and get copies of journal articles through DELNET.

iii. Can get DELPLUS, Library Management Software free of charge for automating library services.

iv. Can help students and academic staff to improve the quality of their study and research by having access to quality resources.

v. Can use consortia facilities for subscribing to various Indian and foreign periodicals in different disciplines from reputed foreign and Indian publishers at reduced subscription charges.

vi. Library staff can get training in the latest Information and Communication Technology (ICT) applications in libraries at the tutorials, workshops, lectures and training programmes organised by DELNET in various parts of the country from time to time, besides the National Convention on Knowledge, Library and Information Networking (NACLIN).

vii. The academic institutions and colleges can fulfill many requirements of accreditation bodies concerning libraries.

viii. In case of loss of data in a member-institution for any reason, DELNET can offer the copy of the data from its archives back to the institution.

ix. Libraries can save substantially by not purchasing such publications or subscribing to such journals whose use will be limited and they can acquire such publications through DELNET.

x. Reference Service using DELNET resources and services becomes more professional and pin-pointed. Thus a number of the users’ needs are satisfied without much delay.

We are convinced that libraries are unable to buy every book, journal or a document they need and its use may be limited to a few users in each library at times. Accessing shared resources is the best way to gain access to extensive resources at the lowest possible annual membership fee.

7 Networked Resources

DELNET provides access to its online resources comprising more than 2.65 crore bibliographic records with locations through the Web for libraries desiring to access through Internet. We began initially our network operations in 1992 with a local dial-up server for the libraries in Delhi and neighbouring satellite cities with 11 telephone lines which was effectively used by the member-libraries. Initially NIC also supported DELNET by providing the 64 kbps RF link at the IIC. It was upgraded to 11 mbps and in 2006 when we shifted from the India International Centre to our building in

<table>
<thead>
<tr>
<th>Number of Member-Libraries as on December 31, 2017 - 6045</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andaman and Nicobar Islands</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
</tr>
<tr>
<td>Arunachal Pradesh</td>
</tr>
<tr>
<td>Assam</td>
</tr>
<tr>
<td>Bihar</td>
</tr>
<tr>
<td>Chandigarh</td>
</tr>
<tr>
<td>Chhattisgarh</td>
</tr>
<tr>
<td>Delhi</td>
</tr>
<tr>
<td>Goa</td>
</tr>
<tr>
<td>Gujarat</td>
</tr>
<tr>
<td>Haryana</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
</tr>
<tr>
<td>Jammu &amp; Kashmir</td>
</tr>
<tr>
<td>Jharkhand</td>
</tr>
<tr>
<td>Karnataka</td>
</tr>
<tr>
<td>Kerala</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
</tr>
<tr>
<td>Maharashtra</td>
</tr>
<tr>
<td>Manipur</td>
</tr>
<tr>
<td>Meghalaya</td>
</tr>
<tr>
<td>Mizoram</td>
</tr>
<tr>
<td>Nagaland</td>
</tr>
<tr>
<td>Odisha</td>
</tr>
<tr>
<td>Puducherry</td>
</tr>
<tr>
<td>Punjab</td>
</tr>
<tr>
<td>Rajasthan</td>
</tr>
<tr>
<td>Sikkim</td>
</tr>
<tr>
<td>Tamil Nadu</td>
</tr>
<tr>
<td>Telangana</td>
</tr>
<tr>
<td>Tripura</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>Uttarakhand</td>
</tr>
<tr>
<td>West Bengal</td>
</tr>
<tr>
<td>Bhutan</td>
</tr>
<tr>
<td>Nepal</td>
</tr>
<tr>
<td>Oman</td>
</tr>
<tr>
<td>Pakistan</td>
</tr>
<tr>
<td>Philippines</td>
</tr>
<tr>
<td>Sri Lanka</td>
</tr>
<tr>
<td>United Arab Emirates</td>
</tr>
<tr>
<td>USA</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
JNU Campus, the RF link was established with NIC. This has now been upgraded to the leased line connection between NIC and DELNET.

7.1 Union Catalogues and Bibliographic Databases

Special efforts are being made to collect and merge the records created by the Member-Libraries located in Delhi and outside Delhi in different states. Visits by our staff are being arranged and librarians are also being provided with the know-how for sending records online or through E-mail. A separate booklet entitled Guidelines for Contributing Bibliographic Records to DELNET was distributed to libraries for this purpose.

Online demonstrations are made by DELNET staff during their visits outside Delhi. The size of the Union Catalogue of Books along with the other databases has eventually increased with diverse locations of member-libraries across different states in the country. Every day new additions are made to the union catalogues. This continuing process enriches the content on a daily basis.

The following is a list of union catalogues, union lists and other databases currently provided by DELNET:

### DELNET Databases as on 31-12-2017

<table>
<thead>
<tr>
<th>Database</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Union Catalogue of Books</td>
<td>2,53,80,450</td>
</tr>
<tr>
<td>2. Union Catalogue of Periodicals</td>
<td>20,235</td>
</tr>
<tr>
<td>3. Union List of Current Periodicals</td>
<td>38,184</td>
</tr>
<tr>
<td>4. Articles Database</td>
<td>9,84,809</td>
</tr>
<tr>
<td>5. E-books Database</td>
<td>1,613</td>
</tr>
<tr>
<td>6. CD-ROM Database</td>
<td>58,831</td>
</tr>
<tr>
<td>7. Union List of Video Recordings</td>
<td>6,000</td>
</tr>
<tr>
<td>8. Union List of Sound Recordings</td>
<td>1,025</td>
</tr>
<tr>
<td>9. Database of Theses and Dissertations</td>
<td>1,02,096</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,65,93,243</strong></td>
</tr>
</tbody>
</table>

7.2 DELNET Consortium

DELNET Consortium was started in 2010 on the demand of many DELNET member-libraries. It took the following measures in this connection:

1. A certificate from the vendor was obtained certifying that the rates offered to consortia members were the lowest in the country.
2. Each member-library would get uninterrupted and constant access to resources for the period for which they had subscribed.
3. This service was optional. Libraries could use it if they so desired.

Access is offered to E-books and E-journals in the fields of Engineering, Technology and Allied Sciences, Management, Pharmacy, Medicine, Health Research, Information Technology, Computer Applications, Business and Humanities. At present, DELNET offers the following products through its consortium:

1. DELNET Gale Cengage Consortium
   1. InfoTrac Engineering, Science & Technology Collection (IESTC)
   2. InfoTrac Management Collection (IMC)
   3. InfoTrac Medical Collection (IMedC)
   4. InfoTrac Pharmacy Collection (IPC)
   5. Health and Wellness Resources Centre (HWRC)
   6. InfoTrac Educator’s Reference Complete (ERC)
### 7. Business & Company Resource Centre (BCRC)

- Business Insight Global (BiG)
- Global Reference on the Environment Energy, and Natural Resources (GREENR)

### 8. Services and Support

#### 8.1 First-Time Access Through Web

DELNET started access to its union catalogues and databases through World Wide Web from June 1, 2000, using Basis Web Server.

#### 8.2 Discovery Services

The records of DELNET’s union catalogues and union lists were transferred to the Knowledge Discovery System of DELNET in January 2017. A number of library professionals were asked to offer their views on the Knowledge Discovery System. After receiving the inputs the Discovery Portal was made operational since January 2017. It is a simple, single window discovery layer which encourages the users to explore the networked library resources offered through DELNET in a feature-rich environment. We are certain that the discovery services will help the member-libraries and their users in better usage of DELNET resources and services. The access is made through the IP authentication. The usage report statistics, ILL book status, date of membership expiry, etc. can also be known through this portal by the member-libraries.

#### 8.3 ILL/DDS

DELNET’s Inter Library Loan (ILL) and Document Delivery Services (DDS) are expanding and becoming popular both within and outside the country. We had wanted to make ILL operational by every library using ILL software like Ariel. But it was noticed that in India there is a greater need to offer personalised services not only to library users but also to library professionals who are working in our member-libraries. On the Web Server we introduced automated registration of requests in the Union Catalogue of Books and Database of Articles as the requests for specific items in these two databases were growing in number. That service continues. The requests for books and articles are entertained from member-libraries located both across and outside the country. Requests are also entertained from research scholars of member-libraries and we encourage them to use the services. We have been able to get photocopies of articles not traceable in India from outside India for the benefit of the researchers. Our services, offered at a low cost, are well appreciated.

#### 8.4 Users’ Support

DELNET provides support to users through E-mail and other modes of communication. A brochure containing the Guidelines for Accessing DELNET Online Database was prepared and distributed among the institutions. DELNET posters are sent to member-libraries periodically for promoting the use of DELNET resources and services among faculty, students and the public.

#### 8.5 Survey

In 1998 we conducted a random survey of 19 libraries in order to find out their preferred requirements through DELNET. It was noted that the demand for books, periodical articles, latest publications along with Internet and e-mail were on top of their demands. Again in December 2008, DELNET conducted a survey among member-libraries to obtain suggestions from them on various issues regarding automation and networking and the services DELNET should be offering to them. The suggestions were appreciated and we upgraded our services keeping the suggestions from members in mind.

#### 8.6 Coordination Units

DELNET established its Coordination Units in Bangalore (2003), Hyderabad (2012), Pune (2015) and Hamirpur (2016) in order to serve member-libraries better. These units assist in Inter-Library Loan work, collection of data from libraries, hands-on for librarians that need training in using DELNET resources and services, promotion of DELNET among non-member libraries, etc.
9 Network Development and Research

In order to promote network operations effectively, DELNET has decided to promote research and study on the specialised issues concerning Library and Information Science and Networking. The following topics were initially identified for study and research:

1. Network Development and Operations
   1.1 Planning and Coordination
   1.2 Network Systems
   1.3 ILL Research
   1.4 Network Communications

2. Content Management
   2.1 Union Catalogues and Bibliographic Databases
   2.2 Full Text Databases
   2.3 Image Control
   2.4 Publicity and Survey
   2.5 Users’ Support

3. Software Research

4. Training and Publicity

5. Retro-Conversion of Records

One of DELNET’s main objectives is to promote resource sharing among libraries. To do so users need to know what information resources are available in which library. This work was initiated by DELNET by compiling union-catalogues, union lists and databases of resources available with its member-libraries and some non-member-libraries and making this information available to member-libraries online. This made the resource sharing effective and manageable.

9.1 Software Research

In 1996 we received Basis Plus software from the National Informatics Centre. On July 2, 1996, DELSIS – DELNET System for Information Services was launched by Dr. N. Seshagiri, Director-General, NIC. In 1999 NIC offered Basis Web Server software to DELNET. DELNET has been receiving requests from member-libraries and non-member-libraries in the past for software for library management and database creation purposes. The libraries wanted standard software at a low rate with free updations. Many libraries in India could not afford to buy expensive library management software. We were deeply concerned about this problem and tried to find solutions to help our libraries. Our efforts of partnerships with commercial software agencies did not work as the priorities of DELNET and software agencies were dissimilar in nature in many respects. It was with this concern that we opened a Software Unit in DELNET in 1997. We began with the creation of software for books, bearing in mind the necessary features that are common to most of the libraries. Our efforts resulted in the creation of software for three purposes:

DELDOS, for creating MARC records. This software has been used for retro-conversion purposes and for creating catalogue records for the National Bibliographic Database; DELWINDOWS which was later modified to DELPLUS, stand-alone library management software for small libraries up to a collection of about 100,000 books in their libraries; and DELMARC, LAN-based library management software for big libraries with more than 100,000 collection of books.

All the three software are compatible with MARC 21 and are used at present in some of the member-libraries. We however, upgrade them constantly. The member-libraries that opt for these software get upgraded versions free of charge periodically. They also give us inputs for introducing new features. We welcome all suggestions and the software team that works on these software work regularly to upgrade them.

In 1997 we introduced DELSEARCH, an off-line remote data access system through e-mail. It was the first of its kind in the world, which was user-friendly and economical.

10 International Initiatives

In order to promote DELNET services outside India, the first step DELNET took was to maintain the same fee structure of Indian libraries for libraries in other SAARC countries. As a result, a few libraries from Nepal and Sri Lanka started using DELNET. To promote the use of DELNET by libraries outside SAARC the fee structure was kept very low. The charge of $100 as admission and $500 as the annual membership fee are very low and reasonable. Four libraries from USA, the Philippines and Oman have joined so far. Also, special efforts were made at international conferences to promote DELNET services outside India. Some of them are given below:

February 5, 1996
DELDOS in collaboration with NBT and RRRLF organised the South Asian Librarians’ Conference on Networking of Public Libraries in South Asia in New Delhi.

February 18, 1997

March 12, 1997
Organised the Seminar on Policy for Evolving the Global Information Infrastructure in collaboration with the American Centre Library, New Delhi.

1999
Dr. H. K. Kaul, Director, DELNET gave online demonstrations of...
DELNET from Lahore and Islamabad in April 1999 and from Colombo in October 1999.

May 17, 2003  
A brainstorming meeting was held at IIC to discuss the production, distribution and use of E-book devices in developing countries. The meeting was attended by President, Scrimgeour Inc., Washington and a Former Vice-President, World Bank, among others.

March 15-16, 2004  
Dr. H. K. Kaul, Director, DELNET and Member, the Board of Management, National Library, India was nominated as Coordinator of the International Conference on National Library Services ICONLIS which was organised in Kolkata with the support of the Ministry of Culture, Government of India.

February 12, 2007  
Organised an ‘Interactive Seminar on Advances in Australian University Libraries’. The panel comprised experts from the University of New England, Charles Sturt University, Macquarie University, University of Sydney and Australian National University.

November 5, 2014  

November 3, 2015  
Organised the International Symposium on Digital Knowledge Repositories at the India International Centre, New Delhi. Speakers included experts from Wenzhou-Kean University, Wenzhou, Zhejiang Province, P. R. China; Virginia Tech, USA; Coalition for Networked Information, Washington, DC, USA; State Library of Queensland, Queensland, Australia and the British Library, London.

11 National Initiatives and Projects

11.1 National Bibliographic Database

The Working Group on Libraries and Informatics of the Planning Commission for the Ninth Five Year Plan (1997-2002) recommended that: “Among the different city networks, it has been found that DELNET has emerged as an operational library network in India with 60 libraries in Delhi and six states as its members. It has developed online Union Catalogues of books and periodicals. It is recommended that DELNET be supported to create a National Database and develop on the OCLC pattern covering all subjects.”

Following up on this recommendation, DELNET submitted a proposal to the Department of Culture, Government of India. The Department of Culture had approved the project as a Pilot Project. Under the Pilot Project, DELNET created 75,000 catalogue records at Punjabi University Library, Patiala; International Institute of Tamil Studies Library, Chennai and Andhra University Library, Visakhapatnam. Subsequently the Department of Culture, Government of India approved the creation of 25,000 MARC records each at the Asiatic Society, Mumbai and the Asiatic Society, Kolkata. The work at the Asiatic Society, Mumbai and at the Asiatic Society, Kolkata was also completed. These included catalogue records generated in Tamil, Punjabi, English and Bengali. In pursuance of these projects, we also created about 22,000 MARC records of books in English at the Sahitya Akademi Library in New Delhi.

11.2 Indian Digital Library Initiative [IDL]

In order to create appropriate digital resources using international standards we needed the infrastructure both for creating new works in digital form and convert the old works of excellence into digital form. DELNET undertook the study on this project in 2000 and completed the Feasibility Report of the Indian Digital Library Initiative for ERNET, Ministry of Communications and Information Technology in 2001.

11.3 AICTE - DELNET MOU

The All India Council for Technical Education (AICTE) and DELNET signed an MOU in 2001 to network the libraries of the technical institutions approved by AICTE. AICTE and DELNET greatly appreciated the importance of the availability of the appropriate information infrastructure in libraries of Technical Institutes. It was with these concerns in mind that AICTE decided to network the libraries of Technical Institutes in India through DELNET. While the MOU remained in operation for a few years, AICTE approved and accredited institutions
have been using DELNET services. In 2011-12 the use of DELNET was recommended by AICTE in their handbook. In 2017 AICTE has recommended that technical institutes should use DELNET resources and services. It is hoped that the use of DELNET by technical libraries will go a long way in offering quality content to students and staff of the technical institutions, in introducing resource sharing among the libraries, in obtaining the latest technological inputs for modernising libraries and in reducing expenditures on collection development.

### 11.4 National Conventions on Knowledge, Library and Information Networking (NACLIN)

DELNET started the organisation of the National Convention on Library and Information Networking (NACLIN) in 1998 in order to offer technical guidance and the latest know-how to library professionals in collecting, storing, sharing and disseminating information. Along with the National Convention, tutorials are organised every year on specific themes. These help participants to acquire in-depth knowledge on a subject of current importance in library and information technology. So far, DELNET has organised 19 National Conventions in different parts of the country. The following are the details. Nineteen volumes of proceedings of these national conventions have also been published.

<table>
<thead>
<tr>
<th>Date</th>
<th>Convention Date</th>
<th>Location</th>
<th>Inaugurated By</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 15-18, 1998</td>
<td>1&lt;sup&gt;st&lt;/sup&gt; National Convention (NACLIN 1998)</td>
<td>at the India International Centre, New Delhi. It was inaugurated by Dr. N. Seshagiri, Director-General, National Informatics Centre.</td>
<td></td>
</tr>
<tr>
<td>October 11-14, 1999</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt; National Convention (NACLIN 1999)</td>
<td>at the India International Centre, New Delhi. Inaugurated by Shri M. K. Kaw, Secretary, Department of Education, Government of India.</td>
<td></td>
</tr>
<tr>
<td>December 22-25, 2000</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt; National Convention (NACLIN 2000)</td>
<td>at the Indian Institute of Technology, Madras.</td>
<td></td>
</tr>
<tr>
<td>November 6-9, 2001</td>
<td>4&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2001)</td>
<td>at the University of Hyderabad, Hyderabad.</td>
<td></td>
</tr>
<tr>
<td>October 21-24, 2002</td>
<td>5&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2002)</td>
<td>at Cochin University of Science and Technology, Cochin.</td>
<td></td>
</tr>
<tr>
<td>October 14-17, 2003</td>
<td>6&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2003)</td>
<td>at Jadavpur University, Kolkata. It was inaugurated by Prof. Satya Sadhan Chakraborty, Minister-in-Charge, Department of Higher Education, Government of West Bengal.</td>
<td></td>
</tr>
<tr>
<td>November 23-26, 2004</td>
<td>7&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2004)</td>
<td>at the University of Pune, Pune. It was inaugurated by Padmashree Dr. Vijay Bhatkar.</td>
<td></td>
</tr>
<tr>
<td>August 22-25, 2005</td>
<td>8&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2005)</td>
<td>at PES University (formerly the PES Institute of Technology), Bangalore. It was inaugurated by Prof. A. Neelameghan.</td>
<td></td>
</tr>
<tr>
<td>September 27-30, 2006</td>
<td>9&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2006)</td>
<td>at the University of Jammu, Jammu.</td>
<td></td>
</tr>
<tr>
<td>November 20-23, 2007</td>
<td>10&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2007)</td>
<td>at the India International Centre, New Delhi. It was inaugurated by Dr. Karan Singh, M P.</td>
<td></td>
</tr>
<tr>
<td>November 4-7, 2008</td>
<td>11&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2008)</td>
<td>at the Karunya University, Coimbatore.</td>
<td></td>
</tr>
<tr>
<td>September 22-25, 2009</td>
<td>12&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2009)</td>
<td>at Panjab University, Chandigarh.</td>
<td></td>
</tr>
<tr>
<td>June 15-18, 2010</td>
<td>13&lt;sup&gt;th&lt;/sup&gt; National Convention (NACLIN 2010)</td>
<td>was organised at Panjab University, Chandigarh.</td>
<td></td>
</tr>
</tbody>
</table>
November 15-17, 2011 14th National Convention (NACLIN 2011) was organised at Visva Bharati, Santiniketan, West Bengal.

November 20-22, 2012 15th National Convention (NACLIN 2012) was organised at the Maharaja Sayajirao University, Vadodara.

December 10-12, 2013 16th National Convention (NACLIN 2013) was organised in collaboration with the Malaviya National Institute of Technology, Jaipur at Hotel Clarks Amer, Jaipur.

December 9-11, 2014 17th National Convention (NACLIN 2014) was organised in collaboration with the French Institute of Pondicherry, Puducherry. It was inaugurated by Hon’ble Dr A.P.J. Abdul Kalam, Former President of India.

October 26-28, 2016 19th National Convention (NACLIN 2016) was organised at Tezpur University, Tezpur. It was inaugurated by the former Hon’ble Vice President of India Shri M. Hamid Ansari. The programme was presided over by the Hon’ble Governor of Assam Shri Banwarilal Purohit. The guests of honour included Hon’ble Shri Ranjit Dutta, Minister, Dept. of Irrigation, Handlooms, Textiles and Sericulture and Hon’ble Shri Ram Prasad Sarmah, Member of Parliament from Tezpur.

November 28-30, 2017 20th National Convention (NACLIN 2017) was organised at India International Centre, New Delhi.

11.5 Convention on Modernisation and Networking of Libraries

In collaboration with Andhra University, Vishakhapatnam DELNET organized the Convention on Modernisation and Networking of Libraries’ on January 20, 2001. The convention was the first of its type in Andhra Pradesh.

11.6 National Round Table on Modernisation and Networking of Libraries in India

The first National Round Table on Modernisation and Networking of Libraries in India was organised on January 5, 2002 by DELNET with the support of the Department of Culture, Government of India. It was inaugurated by Shri
Jagmohan, Union Minister of Tourism and Culture, Government of India. The National Round Table discussed the issues concerning modernisation and networking of libraries in India.

11.7 National Seminar on Electronic Libraries in Rural India

DELNET organised a national seminar on ‘Electronic Libraries in Rural India’ on May 11, 2002 to celebrate the National Technology Day. It was inaugurated by Shri Jagmohan, Hon’ble Minister for Tourism and Culture.

11.8 India Public Library Conference

1st India Public Libraries Conference – IPLC 2015 was jointly organised from March 17-18, 2015 by DELNET and Digital Empowerment Foundation in association with a number of institutions including the National Mission on Libraries, National Book Trust, Raja Rammohun Roy Library Foundation, National Library, Pratham Books, NASSCOM Foundation, IPSOS, Read Global, Sri Ratan Tata Trust, M. S. Saminathan Research Foundation, RRRLF and IREX among others. The conference was supported by the Bill and Melinda Gates Foundation. The theme of this conference was Transforming Public Libraries in India: Envisioning the Future.

2nd India Public Libraries Conference was organised by DELNET in collaboration with the NASSCOM Foundation and Bill and Melinda Gates Foundation (BMGF) from March 7-8, 2016 at the India International Centre.

11.9 National Symposium on Libraries of the Future

DELNET organised the National Symposium on ‘Libraries of the Future: The Great Expectations’ jointly with IGroup and Balani Infotech at DELNET on November 18, 2016.

12 Education and Training

12.1 DELNET Annual Lectures

DELNET instituted Annual Lecture Series in 1998. The lectures were delivered by the following experts:

- January 5, 1998: 1st Annual Lecture was delivered by Mr. N. Vittal, Chairman, Public Enterprises Selection Board entitled ‘Information Technology and Library Networking: The Challenges Ahead’
- July 21, 1999: 2nd Annual Lecture was delivered by the late Prof. M.G.K. Menon, President, India International Centre, New Delhi entitled ‘The Technological Underpinnings of the New Information Society’
- December 8, 2000: 3rd Annual Lecture was delivered by Dr. V.S. Arunachalam, Distinguished Service Professor, the Robotics Institute, Carnegie Mellon University entitled ‘Information Technology: Is it a True Industrial Revolution?’
- November 29, 2001: 4th Annual Lecture was delivered by Prof. N. Balakrishnan, Head, Supercomputer Education and Research Centre, Indian Institute of Science, Bangalore entitled ‘Digital Library: Technology, Law and Society’
- January 4, 2002: 5th Annual Lecture was delivered by Dr. R. Natarajan, Chairman, All India Council for Technical Education, New Delhi entitled ‘On the Emergence of India as a Knowledge Super Power’
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 7, 2003</td>
<td>6th Annual Lecture was delivered by Dr N Seshagiri, Former Director-General, National Informatics Centre, New Delhi</td>
<td>entitled ‘Digital Libraries For Distance Education’</td>
<td>Dr N. Seshagiri, Former Director-General, National Informatics Centre, New Delhi</td>
<td></td>
</tr>
<tr>
<td>December 17, 2004</td>
<td>7th Annual Lecture was delivered by Dr. N. Vijayaditya, Director-General, National Informatics Centre, New Delhi</td>
<td>entitled ‘Facing the Citizen Turning G to G by 180’</td>
<td>Dr. N. Vijayaditya, Director-General, National Informatics Centre, New Delhi</td>
<td></td>
</tr>
<tr>
<td>May 4, 2005</td>
<td>8th Annual Lecture was delivered by Prof. Paul Sturges, Editor of International Encyclopaedia of Information and Library Science, Deputy Head, Department of Information Science, Loughborough University, Leicestershire, UK</td>
<td>entitled ‘Copyright in the Digital Era’</td>
<td>Prof. Paul Sturges, Editor of International Encyclopaedia of Information and Library Science, Deputy Head, Department of Information Science, Loughborough University, Leicestershire, UK</td>
<td></td>
</tr>
<tr>
<td>December 4, 2006</td>
<td>9th Annual Lecture was delivered by Prof. P.M. Bhargava, Vice-Chairman, National Knowledge Commission, Government of India</td>
<td>entitled ‘The Relation Between the Arts and Science’</td>
<td>Prof. P.M. Bhargava, Vice-Chairman, National Knowledge Commission, Government of India</td>
<td></td>
</tr>
<tr>
<td>August 3, 2007</td>
<td>10th Annual Lecture was delivered by Prof. V.S. Prasad, Director, NAAC, Bangalore</td>
<td>entitled ‘Quality of Library and Information Services’</td>
<td>Prof. V.S. Prasad, Director, NAAC, Bangalore</td>
<td></td>
</tr>
<tr>
<td>November 28, 2008</td>
<td>11th Annual Lecture was delivered by Mr. Stephen Abram, President, Special Libraries Association (SLA), USA</td>
<td>entitled ‘Libraries and the Global Technology Forecast’</td>
<td>Mr. Stephen Abram, President, Special Libraries Association (SLA), USA</td>
<td></td>
</tr>
<tr>
<td>March 5, 2009</td>
<td>12th Annual Lecture was delivered by Professor S. V. Raghavan, Network System Laboratory, Department of Computer Science and Engineering, IIT, Madras</td>
<td>entitled ‘Information Dissemination in Next Generation Networks: Opportunities and Challenges’</td>
<td>Professor S. V. Raghavan, Network System Laboratory, Department of Computer Science and Engineering, IIT, Madras</td>
<td></td>
</tr>
<tr>
<td>May 11, 2010</td>
<td>13th Annual Lecture was delivered by Professor S. S. Mantha, Chairman, All India Council for Technical Education, New Delhi</td>
<td>entitled ‘Robotics and Artificial Intelligence’</td>
<td>Professor S. S. Mantha, Chairman, All India Council for Technical Education, New Delhi</td>
<td></td>
</tr>
<tr>
<td>March 19, 2012</td>
<td>14th Annual Lecture was delivered by Mr. Brent Mai, President, Special Libraries Association, USA</td>
<td>entitled ‘The Library in the Cloud’</td>
<td>Mr. Brent Mai, President, Special Libraries Association, USA</td>
<td></td>
</tr>
<tr>
<td>December 5, 2012</td>
<td>15th Annual Lecture was delivered by Dr. Gulshan Rai, Director-General, I-CERT (Indian Computer Emergency Response Team) and GC (Cyber Laws and Security), Department of Information Technology, Government of India</td>
<td>entitled ‘Cyber Laws and E-security’</td>
<td>Dr. Gulshan Rai, Director-General, I-CERT (Indian Computer Emergency Response Team) and GC (Cyber Laws and Security), Department of Information Technology, Government of India</td>
<td></td>
</tr>
<tr>
<td>February 8, 2014</td>
<td>16th Annual Lecture was delivered by Prof. Sandeep Sancheti, President, Manipal University, Jaipur</td>
<td>entitled ‘Personalising Libraries and Their Access’</td>
<td>Prof. Sandeep Sancheti, President, Manipal University, Jaipur</td>
<td></td>
</tr>
<tr>
<td>March 17, 2015</td>
<td>17th Annual Lecture was delivered by Mr. Brian Gambles, Executive Director, Library of Birmingham Trust, Birmingham</td>
<td>entitled ‘The Power of Libraries: Building the Memory Machine’</td>
<td>Mr. Brian Gambles, Executive Director, Library of Birmingham Trust, Birmingham</td>
<td></td>
</tr>
<tr>
<td>December 11, 2015</td>
<td>18th Annual Lecture was delivered by Prof. Subrata Chakraborty, Former Dean and Director-in-Charge, Indian Institute of Management, Lucknow; and Former Director, Jaipuria Institute of Management, Lucknow at IIC, New Delhi</td>
<td>entitled ‘Functioning in Challenging Times : Bridging the Expectation - Fulfilment Gap in Libary &amp; Information Services’</td>
<td>Prof. Subrata Chakraborty, Former Dean and Director-in-Charge, Indian Institute of Management, Lucknow; and Former Director, Jaipuria Institute of Management, Lucknow at IIC, New Delhi</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Other Lectures

The following lectures were organised by DELNET besides the Annual Lectures:

July 22, 1993 | Prof. Gary Marchionini, Assistant Professor at the University of
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Presenter/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 27, 1994</td>
<td>Lecture on ‘American Libraries’ by Dr. David Magier of the Columbia University Library.</td>
<td></td>
</tr>
<tr>
<td>December, 1994</td>
<td>Lecture on ‘Library Networking: Problems and Prospects’ by Mr. Bruce Royan, Director, Information Services &amp; University Librarian, University of Sterling, UK.</td>
<td></td>
</tr>
<tr>
<td>August 29, 1995</td>
<td>Lecture demonstration on the ‘Use of GIST in Libraries’ by Mr. Mohan Tambe, Executive Director, Language Technology Mission of Department of Electronics, Government of India.</td>
<td></td>
</tr>
<tr>
<td>January 2, 1996</td>
<td>Dr. N. Seshagiri, DG, NIC delivered a talk on ‘Networking in India: A National Perspective’.</td>
<td></td>
</tr>
<tr>
<td>March 1, 1996</td>
<td>Lecture on ‘Vision for a Universal Library’ was delivered by Prof. Pradeep Khosla, Director, Advanced Manipulators Lab, The Robotics Institute, Carnegie Mellon University.</td>
<td></td>
</tr>
<tr>
<td>September 30, 1997</td>
<td>Lecture on the ‘Role of EDI in Publishing and Library Networking’ by Mr. Julian Hardinge, General Manager, International Library Services, John Smith &amp; Son, UK.</td>
<td></td>
</tr>
<tr>
<td>August 8, 1997</td>
<td>In collaboration with IGNCA organised a lecture on ‘Extension of Network Services to Libraries in Maine (USA)’ by Mr. Paul Shroeder, a doctoral scholar at the Department of Spatial Information Science and Engineering, University of Maine.</td>
<td></td>
</tr>
<tr>
<td>January 8, 1999</td>
<td>Lecture on ‘Information Networks’ in collaboration with INSA by Dr. Wendy White, Director, Division of International Organisations &amp; Academy Corp, National Academy of Sciences, Washington.</td>
<td></td>
</tr>
<tr>
<td>March 16, 1999</td>
<td>Lecture on ‘Sankhya Vahini: The Data Network for India’ by Dr. V. S. Arunachalam, Distinguished Services Professor and Dr. Raj Reddy, Dean, both from Carnegie Mellon University, Baltimore, USA.</td>
<td></td>
</tr>
<tr>
<td>March 19, 1999</td>
<td>Lecture on ‘Multimedia in Libraries: Some Recent Developments and Solutions’ by Dr. Anthony Hugh Thompson, Managing Director, Multimedia Information &amp; Technology, UK.</td>
<td></td>
</tr>
<tr>
<td>January 8, 2001</td>
<td>Lecture on ‘Attitudes and Skills for Information Managers in the Digital Age’ by Mr. Edmund Marsden, Director, British Council Division, British High Commission, New Delhi.</td>
<td></td>
</tr>
<tr>
<td>May 12, 2003</td>
<td>Lecture on ‘Next Generation Internet’ to celebrate National Technology. The lecture was delivered by Dr. S. Ramakrishnan, Senior Director and Head, Software Development Division, Department of Information Technology, Government of India and Executive Director, CDAC.</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Location</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>May 11, 2004</td>
<td>On National Technology Day DELNET organised a lecture on ‘New Trends in IT: Content Creation’ by Dr. V.N. Shukla, Director, Special Applications, Centre for Development of Advanced Computing (CDAC), NOIDA.</td>
<td>Science, University of Southampton, UK.</td>
</tr>
<tr>
<td>July 3, 2004</td>
<td>Lecture on ‘TQP-Total Quality Person’ by Prof. (Dr.) C. V. Ramanan, Director, Sri Singieri Institute of Management, New Delhi.</td>
<td>Lecture on ‘Knowledge Management: The Indian Context’ by Prof. Robert Newton, Associate Dean (Research), Aberdeen Business School, The Robert Gordon University, Aberdeen, Scotland, UK at DELNET.</td>
</tr>
<tr>
<td>January 3, 2005</td>
<td>Lecture on ‘UNESCO: Communication and Information in Asia’ by Dr. Susanne Ornager, Advisor for Communication and Information in Asia and the Pacific.</td>
<td>Lecture by Dr. Ajit Pyati on ‘Public Library Revitalisation in India: Visions and Possibilities’.</td>
</tr>
<tr>
<td>January 31, 2005</td>
<td>Lecture on ‘ISO 9001: Applications in Libraries and Information Centres’ by Dr. Harish Chandra, Librarian, Indian Institute of Technology, Madras.</td>
<td>Lecture by Prof. (Dr.) C. V. Ramanan, Director, Sri Singieri Institute of Management, New Delhi.</td>
</tr>
<tr>
<td>February 18, 2005</td>
<td>Lecture on ‘Public Library Services in the United States and India’ by Dr. Shameem J. Syed, Associate Branch Manager, Fairfax County Public Library, VA, USA and Dr. H. K. Kaul, Director, DELNET.</td>
<td>Lecture by Janice R. Lachance on ‘Advocating for the Value of Information Professionals in the Workplace in collaboration with the Asian Chapter of Special Libraries Association (SLA), USA.</td>
</tr>
<tr>
<td>May 4, 2005</td>
<td>Lecture was delivered on ‘Copyright in the Digital Era’ by Prof. Paul Sturges, Author of Encyclopaedia of Librarianship and a Senior Professor at the Loughborough University, Lichestershire, UK.</td>
<td>Lecture on ‘Four Pillars of Knowledge’ was delivered by Dr. Karan Singh, MP.</td>
</tr>
<tr>
<td>December 5, 2006</td>
<td>Lecture on ‘Who Guards the Guards?: Challenges and Strategies for Digital Preservation’ by Heather Brown, Asstt Director, Paper, Artlab Australia and Project Officer, State Library of South Australia, for University of South Australia Business RFDX Information Centre.</td>
<td>Lecture on ‘Digital Content: Strategies for the Future’ by Dr. Ajay Kumar, Additional Secretary, MeitY, Government of India. This lecture was organised keeping in mind that the librarians were interested in knowing about the Government of India’s policies about the promotion of digital content.</td>
</tr>
<tr>
<td>February 23, 2007</td>
<td>Organised in collaboration with the British Council, lecture on ‘Towards a Science of the Web’ by Prof. Wendy Hall, Prof. and Head, School of Electronics and Computer Science, University of Southampton, UK.</td>
<td>Lecture on ‘E-waste Management in Institutions: Rules and Guidelines’ by Dr. Sandip Chatterjee, Director &amp; OSD, Ministry of Electronics and Information Technology, Government of India.</td>
</tr>
<tr>
<td>September 15, 2016</td>
<td>Lecture on ‘Crowdsourcing, the Issue of Common Concern to LIS Professionals’ by Dr. Mausam, delnet Newsletter 38 Vol. 24, Nos. 1 &amp; 2, December 2017</td>
<td>Lecture on ‘E-waste Management in Institutions: Rules and Guidelines’ by Dr. Sandip Chatterjee, Director &amp; OSD, Ministry of Electronics and Information Technology, Government of India.</td>
</tr>
</tbody>
</table>
Associate Faculty in the Department of Computer Science and Engineering, IIT Delhi and Affiliate Faculty, Department of Computer Science and Engineering, University of Washington, Seattle.

October 21, 2016
In collaboration with the American Centre Library, New Delhi DELNET organised a lecture on ‘Global Trends in Libraries’ by Dr. Christopher Dunnett, Director, Office of American Spaces, Bureau of International Programmes, US Department of State, Washington, USA.

June 30, 2017
DELNET Silver Jubilee Lecture delivered by Dr. Neeta Verma, Director-General, National Informatics Centre, Ministry of Electronics and Information Technology. Chair: Prof. M. Jagadesh Kumar, Hon’ble Vice-Chancellor, JNU.

12.3 Workshops, Discussions and Training Programmes

DELNET has been organising training programmes for Library and Information Science Professionals in the country. Most of these training programmes have been organised in collaboration with reputed institutions across the country.

1993 The National Workshop on Library Network Services organised in collaboration with DRTC, Bangalore.

January 26-28, 1995 In collaboration with IIT Delhi organised a training programme in CDS/ISIS.

Jan. 30-Feb. 3, 1995 Training programme in E-mail and Online Services.

August 13, 1996 In collaboration with the US Information Service organised a panel discussion on ‘Electronic Publishing and Intellectual Property Rights’ at IIC.

September 9-11, 1997 A three-day workshop on ‘Access to Internet’ in collaboration with the Indian National Science Academy (INSA).

September 10, 1998 Interactive workshop in collaboration with Katha entitled ‘Libraries as Centres of Creativity: The Culture of Reading’.

May 11-12, 2000 Training programme in collaboration with ICAR on ‘Exploring Internet and Its Applications, Website Creation, etc.’ by Ms. Maureen Mahoney of CABI. Online access to DELNET resources and a demo on DELNET software was also given.

June 5, 2000 Meet on Modernisation of Oriental Libraries with the support of the Ministry of Culture, Government of India.

October 3-5, 2000 Two-day training programme at IIT Roorkee on IT Applications in Libraries.

July 8-10, 2002 DELNET training programme at Rajiv Gandhi University of Health Sciences, Bangalore.

August 19-21, 2002 DELNET training programme at the National Informatics Centre, Pune.

September 18, 2002 DELNET training programme at the Indian Institute of Technology, Madras.

Nov. 26-28, 2002 DELNET training programme at Jadavpur University, Kolkata.

December 2-4, 2002 DELNET training programme at National Informatics Centre, New Delhi.

January 21, 2003 DELNET training programme at the University Institute of Chemical Technology, Mumbai.


May 15, 2003 Seminar on DELNET was organised by the Punjab Technical University and DELNET at DAV Institute of Engineering and Technology, Jalandhar. The seminar was inaugurated by Prof. Y.S. Rajan,
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 19-20, 2004</td>
<td>DELNET training programme was organised at the National Informatics Centre, New Delhi.</td>
<td>March 27, 2008</td>
<td>DELNET Workshop at Kumaon University, Almora.</td>
</tr>
<tr>
<td>June 14, 2004</td>
<td>DELNET training programme at KLN College of Engineering, Madurai.</td>
<td>September 29, 2008</td>
<td>Orientation programme at Sarvajanik College of Engineering and Technology, Surat.</td>
</tr>
<tr>
<td>September 27, 2004</td>
<td>DELNET training programme at the Medi-Caps Institute of Technology and Management, Indore.</td>
<td>April 28-30, 2010</td>
<td>A workshop was organised at DELNET on ‘DSpace for Building Digital Libraries’.</td>
</tr>
<tr>
<td>March 15, 2005</td>
<td>DELNET training programme at Jadavpur University, Kolkata</td>
<td>May 3-5, 2010</td>
<td>A workshop on ‘Koha: An Open Source Integrated Library System’ was organised at DELNET, New Delhi.</td>
</tr>
<tr>
<td>April 16, 2007</td>
<td>One-day Orientation Programme was organised at Ravenshaw University, Cuttack.</td>
<td>July 9, 2010</td>
<td>Orientation programme at GLA IITM (now GLA University), Mathura, Uttar Pradesh.</td>
</tr>
<tr>
<td>September 3-5, 2007</td>
<td>Workshop on Building Digital Libraries: Application of DSpace organised at DELNET.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 27-29, 2007</td>
<td>Workshop on ‘New Trends in Library and Information Services’ organised at DELNET.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 18, 2008</td>
<td>Workshop at NRI Institute of Technology and Management, Gwalior.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Location</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>April 21, 2011</td>
<td>DELNET orientation programme at BIT Mesra, Ranchi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 27, 2011</td>
<td>DELNET orientation programme at the Indian Institute of Advanced Study, Shimla</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 16, 2011</td>
<td>DELNET orientation programme at Jaipuria Institute of Management, Lucknow.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 4-6, 2011</td>
<td>Workshop on ‘Building Digital Libraries Using Dspace’ at DELNET.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 8-10, 2011</td>
<td>Workshop on ‘Greenstone: A Digital Library Solution’ at DELNET.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 11-13, 2011</td>
<td>Workshop on ‘Joomla: An Open Source Content Management Software’ at DELNET.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 10, 2011</td>
<td>DELNET orientation programme at the Maharaja Sayajirao University of Baroda, Vadodara.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 17, 2011</td>
<td>DELNET orientation programme at MP Council of Science &amp; Technology, Bhopal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 28, 2012</td>
<td>DELNET orientation programme at Amrita Vishwa Vidyapeetham University, Kollam, Kerala.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 1, 2012</td>
<td>DELNET orientation programme at R.V. College of Engineering, Bangalore.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 16, 2013</td>
<td>DELNET orientation workshop at National Institute of Virology, Pune.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 19, 2013</td>
<td>DELNET orientation programme at KDK College of Engineering, Nagpur.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 20, 2013</td>
<td>DELNET orientation programme at Sri Sai Ram Engineering College, Chennai.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 22, 2013</td>
<td>DELNET orientation programme at the National Institute of Technology, Tiruchirappalli.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 4, 2013</td>
<td>DELNET orientation programme at the KLE Society’s College of Engineering &amp; Technology, Belgaum.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 7, 2013</td>
<td>DELNET orientation programme at the JSS Academy of Technical Education, Bangalore.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 15, 2013</td>
<td>DELNET orientation programme at the Central University of Himachal Pradesh, Shahpur Campus, Kangra.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 20, 2013</td>
<td>DELNET orientation programme at Amity University, Noida.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 10, 2013</td>
<td>DELNET orientation programme at the Synergy Institute of Engineering &amp; Technology, Dhenkanal, Bhubaneswar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 10, 2011</td>
<td>DELNET orientation programme at National Institute of Technology, Durgapur, West Bengal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 17, 2011</td>
<td>DELNET orientation workshop at O.P. Jindal Global University Library, Sonepat, Haryana.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 28, 2012</td>
<td>DELNET orientation workshop at K.S. Rangasamy College of Technology, Tiruchengode, Namakkal, Tamil Nadu.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 30, 2012</td>
<td>DELNET orientation workshop at K.E.S’s Institute of Management &amp; Research, Jalgaon, Maharashtra.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 1, 2012</td>
<td>DELNET orientation workshop at St. Joseph’s Engineering College, Mangalore, Karnataka.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 13, 2012</td>
<td>DELNET orientation workshop at Medi-Caps Group of Institutions, Indore, Madhya Pradesh.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 13, 2014</td>
<td>DELNET orientation workshop at Vignana Jyothi Institute of Management, Hyderabad, Telangana.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td>Date</td>
<td>Event Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>November 16, 2015</td>
<td>Academic Integrity Event: How to Stop Plagiarism in the Academic Environment at DELNET.</td>
<td>April 11, 2017</td>
<td>DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software &amp; Emerging Trends in LIS Services’ in collaboration with Christ University, Bengaluru held at Christ University, Bengaluru.</td>
</tr>
<tr>
<td>January 15, 2016</td>
<td>Symposium on ‘Igniting Young Minds: Digital Resources for School Libraries in India’ in collaboration with the National Book Trust at the World Book Fair, Pragati Maidan, New Delhi.</td>
<td>April 13, 2017</td>
<td>DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software &amp; Emerging Trends in LIS Services’ in collaboration with Christ University, Bengaluru held at Christ University, Bengaluru.</td>
</tr>
</tbody>
</table>
in LIS Services’ in collaboration with S. R. M. University, Chennai held at S. R. M. University, Chennai

May 5, 2017

Workshop on ‘DELNET - Resources & Services: Boundless Possibilities for Research and Reference’ organised jointly with Kamala Nehru College, University of Delhi, New Delhi.

May 10, 2017

Organised in collaboration with Institut Francais in India the Mediatheques XXI at DELNET including the panel discussion on ‘Building Collections, Connections and Collaborations for Enhancing Research Facilities for French Studies in India’.

July 29, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging technologies in Knowledge Management & Academic Integrity How to Stop Plagiarism in Academic Environment’ held at Dr. O. P. Bhalla Central Library, Manav Rachna International University, Faridabad, Haryana.

August 2, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Communication Skills for LIS Professionals, Emerging Technologies in Knowledge Management & Academic Integrity: How to Stop Plagiarism in Academic Environment’ held at Kerala University of Fisheries & Ocean Studies, Kochi on Wednesday.

August 5, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Communication Skills for LIS Professionals, Emerging Technologies in Knowledge Management and Academic Integrity: How to Stop Plagiarism in Academic Environment’ held at Thiagarajar School of Management, Madurai.

August 21, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging technologies in Knowledge Management, Communication Skills for LIS Professionals, Academic Integrity and Plagiarism’ held at I. T. M. University, Gwalior.

August 28, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging technologies in Knowledge Management, Communication Skills for LIS Professionals, Academic Integrity and Plagiarism’ scheduled to be held at Chitkara University, Solan has been postponed.

September 8, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging Technologies in Knowledge Management, Communication Skills for LIS Professionals, Academic Integrity and Plagiarism’ held at Jawaharlal Nehru Technological University, Hyderabad.

September 11, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging Technologies in Knowledge Management, Communication Skills for LIS Professionals, Academic Integrity and Plagiarism’ held at Aditya Engineering College, Surampalem.

September 16, 2017

DELNET One-Day Workshop on ‘DELNET Discovery Services, Open Source Software, Emerging Technologies in Knowledge Management, Communication Skills for LIS Professionals, Academic Integrity and Plagiarism’ held at D. A. V. University, Jalandhar.

13  DELNET Publications

The staff have been editing / writing books and papers on various themes connected with Library and Information Science and Networking. The details are available at DELNET.
Website. The following are reports and books (hardbound) produced by DELNET and its staff from 1990 to 2017:

1990 Feasibility Report on DELNET prepared by C. M. C. Ltd. Coordination Committee constituted by NISSAT with Dr. S. Varadarajan, as its Chairman and Dr. H. K. Kaul as its Member-Secretary.

1994 DELNET Newsletter was started. It is being published regularly since 1994.


Silver Jubilee National Paper Competition

DELNET – Developing Library Network has completed 25 years of its service to libraries since June 30, 1992, the day when it was registered as a Society. We are celebrating the Silver Jubilee Year of DELNET. As part of the celebrations, DELNET is organising the following competition:

LISCOMP-LP 2017-18

The National Paper Competition Among LIS Professionals

The best original and unpublished papers by library professionals on the theme “Transforming Library Services Through Networking Library and Information Resources” and/or its sub-themes including ‘Resource Sharing through DELNET’, ‘Quality Content for Libraries: Role of DELNET’, ‘DELNET: Bridging the Digital Divide’, ‘DELNET’s Contributions to Knowledge and Society’, ‘DELNET Training Programmes for LIS Professionals’ etc. will be given a certificate, statuette, and the following award money. The prize-winning and shortlisted papers will be published by DELNET.

First Prize: Rs. 30,000  Second Prize: Rs. 20,000  Third Prize: Rs. 10,000

The paper should not exceed 5000 words and Chicago Manual of STYLE be used for Referencing.

May 30, 2018 is the last date for receiving papers by Director, DELNET- Developing Library Network, JNU Campus, Nelson Mandela Road, Vasant Kunj, New Delhi-110070. Tel: 91-11-26741111, Mobile: +91-9891016667, 9810329992 E-mail: likkaul@gmail.com; sangskaul2003@yahoo.co.in
**Workshops**

DELNET organised a series of workshops during the year 2017 in order to promote the use of DELNET services in different parts of the country.

A one-day workshop in collaboration with INMANTEC, Ghaziabad, Uttar Pradesh was organised on March 4, 2017. Dr. Rajesh Kumar, Librarian, Integrated Academy of Management and Technology (INMANTEC) was the Local Coordinator of the Workshop.

A one-day workshop in collaboration with Christ University, Bengaluru, Karnataka was organised on April 11, 2017. Mr. Sree Kumar Nair, Librarian, Christ University, Bengaluru was the Local Coordinator of the Workshop.
A one-day workshop in collaboration with S. R. M. University, Ramapuram Campus, Chennai, Tamil Nadu was organised on April 13, 2017. Dr. K. Thandavamoorthy, Chief Librarian, S. R. M. University, Ramapuram Campus, Chennai was the Local Coordinator of the Workshop.

DELNET Workshop in collaboration with Kamala Nehru College, University of Delhi, New Delhi was organised on May 5, 2017. Dr. Geetesh Nirban, Coordinator, IQAC, Kamala Nehru College, University of Delhi, New Delhi was the Local Coordinator of the Workshop.
A one-day workshop in collaboration with Dr. O. P. Bhalla Central Library, Manav Rachna International University, Faridabad, Haryana was organised on July 29, 2017. Dr. Vikram Kumar Sharma, University Librarian, Manav Rachna International University, Faridabad was the Local Coordinator of the Workshop.

A one-day workshop in collaboration with Kerala University of Fisheries & Ocean Studies (KUFOS), Kochi, Kerala was organised on August 2, 2017. Mr. V.S. Kunjumuhammed, Assistant Librarian, KUFOS, Kochi was the Local Coordinator of the Workshop.
A one-day workshop in collaboration with Thiagarajar School of Management, Madurai, Tamil Nadu was organised on August 5, 2017. Dr. S. Sridhar, Librarian, Thiagarajar School of Management, Madurai was the Local Coordinator of the Workshop.

A one-day workshop in collaboration with ITM University, Gwalior, Madhya Pradesh was organised on August 21, 2017. Mr. Vikas Dwivedi, Head Library, ITM University, Gwalior was the Local Coordinator of the Workshop.
A one-day workshop in collaboration with Jawaharlal Nehru Technological University (JNTU) Hyderabad, Telangana was organised on September 8, 2017. Prof. N. Rupsing Naik, University Librarian, JNTU Hyderabad was the Local Coordinator of the Workshop.

A one-day workshop in collaboration with Aditya Engineering College, Surampalem, Andhra Pradesh was organised on September 11, 2017. Mr. K. Ashok Kumar, Chief Librarian, Aditya Engineering College, Surampalem was the Local Coordinator of the Workshop.
A one-day workshop in collaboration with DAV University, Jalandhar, Punjab was organised on September 16, 2017. Ms. Maninder Kaur Sood, Assistant Librarian and Ms. Amandeep Kaur, Assistant Librarian, DAV University, Jalandhar were the Local Coordinators of the Workshop.

Watch DELNET Silver Jubilee Documentary on Youtube
https://www.youtube.com/watch?v=Buz5n3YjHaM