



# NDLI TODAY

DIGITAL LIBRARIES FOR DIGITAL SOCIETIES: SOME LEARNINGS



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## DIGITAL LIBRARIES FOR DIGITAL SOCIETIES: Some Learnings

Since the inception of NDLI in 2015, much has traversed, and so have we.

For the past years, we have travelled to every state in India and spoken to users, librarians, IP lawyers, policy makers, students, edupreneurs, technocrats repeatedly. We presented papers and received friend requests, we held workshops and delivered numerous talks across various trans-disciplinary groups. NDLI today has a thriving community across online and offline channels thanks to social media and a tireless team of patrons and patriots who have supported the project with their undying belief and tireless contributions. We have attended over fifty international events with various digital libraries and related communities and unearthed various trails, trends and tools in the rapidly changing domain that is digital education technology.

The definition of a library has changed due to the strides in digital computing, as has the meaning of content. The possibilities of a digital amalgamation of learning resources in 70+ formats is a nascent yet important reality - how the youth of today access and process that information is another.

What users want from a library, or why they would visit a library are also some new questions faced by a digitized society - as is the role of modern librarians.

How we look at things, how we analyze content, how we evaluate information - have all evolved in this age of big data and multiple HD screens. Adding this to India's diversity mix which includes multiple languages, multiple geographies, multiple socio-economic groups of learners from multiple streams and levels of proficiency, we have a complex mix of learning needs and outcomes. At the same time, India houses one of the world's youngest working age populations. We have a large number of youth in need of skill-based training who could contribute to the functioning of our world. Thus, our quest and constant strive to create a single-source multi-access knowledge repository that is as diverse, as democratic and as dynamic as India itself.

This issue of the NDLI newsletter is a learner's issue where we have looked back at some of the major events in the digital library domain and what we have learnt from the same.

This is also a good opportunity to inform the NDLI community of our upcoming knowledge symposium - KEDL2019, the preparations for which are already underway. NDLI's flagship event brings together some of the best minds across the globe to India to discuss Knowledge Engineering in Digital Library Design. The 2019 symposium will be held in December at IIT Delhi and in collaboration with UNESCO. Further details can be found at: <http://kedl2019.ndli.gov.in>

I invite all of you to come forward and join hands so that together, we can collate our learnings to help not just some, but all of India learn, share and grow.

- Prof. Partha Pratim Das  
Joint Principal investigator, NDLI  
IIT Kharagpur.



**1.8 CR+  
CONTENT**



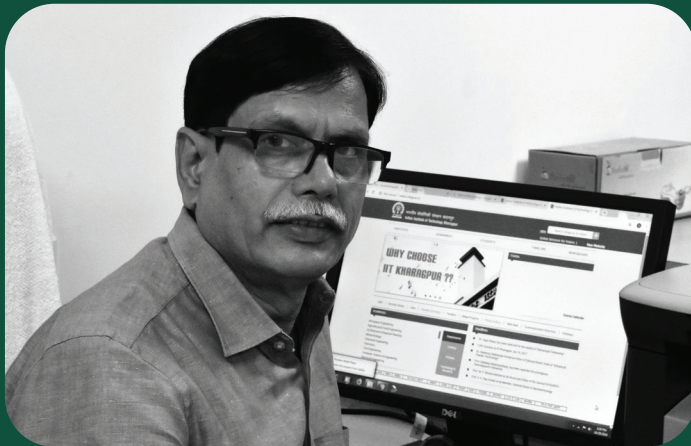
**180+  
CONTENT  
SOURCES**



**9,000+  
REGISTERED  
INSTITUTES**



**45L+  
USERS**



## FROM THE CHAIRMAN'S DESK

The mission to build one library for all of India must have at its centre one starting point from where the initiative can stem. For the National Digital Library of India, this came from IIT Kharagpur's own Central Library – a vast reservoir of techno-creative content that has been developed gradually for decades to reach the pinnacle where it stands at today.

Libraries are the cornerstone of any academic institution – a single resource that brings to learners the resources they need to enable growth and development. In this context, IIT Kharagpur's Central Library welcomed the idea of one library that can dedicatedly service the needs of every learner across India, with open arms. Not only did our Central Library offer its own contents to be integrated into NDLI's repository, but we were also happy to support the NDLI project with our technical expertise, infrastructure and faculty to realise the vision of a single integrated knowledge resource for all of India. To this end, our Central Library has partnered with the NDLI project to hold various events and short-term courses like OSSLM: Open Source Software For Library

Management – where we invite librarians from all corners of the world to enable them with the technical know-how to tackle the rapid digitization of knowledge.

We hope to be able to create a community of digital librarians who can then go back and further train their communities thereby spreading and growing our goals towards opening the gates of knowledge to one and all.

NDLI aims to develop a sustainable model for digital libraries centred around a folksonomic framework that actively invites collaborators from India and abroad to crowdsource metadata and content that can inspire all of India to learn, share and grow. To this extent, the project has already been successful in meeting its earlier set objectives. We at Central Library of our Institute are proud to partner with this initiative that is not only based within the walls of our library, but is also a drive to develop education in India by taking full advantage of the technological advances available today. Infact, this project would not have been possible without the vision and dedication of our current librarian, Dr. B Sutradhar, who had set up the initial framework of this treasure trove, and has been tirelessly serving the cause of NDLI since inception.

As the chairman of the Central Library, I thank Dr. Sutradhar, our Librarian and all staff members of our Central Library and the NDLI entire project team for this gargantuan effort. I look forward to National Digital Library of India's bright future, as well as that of its users who can empower their own lives through this initiative and drive forward the nation towards progress and prosperity.

- Prof. Suneel Kumar Srivastava,  
Chairman, Central Library,  
IIT Kharagpur.

## NDLI IN THE NEWS



**26<sup>th</sup> Apr, 2018**

National Digital Library centre inaugurated at IIT-Guwahati



**3<sup>rd</sup> Aug, 2018**

What is NDLI? Click here to know 5 top digital libraries of the world



**2<sup>nd</sup> Sep, 2018**

Make most of Swayam: AICTE chief to students



**3<sup>rd</sup> Aug, 2018**

National Digital Library To Collaborate With Top Digital Libraries Of World



**7<sup>th</sup> Oct, 2018**

Digital Library Inaugurated in Women's College



**15<sup>th</sup> Oct, 2018**

TTIS Cover Story: National Digital Library of India

## IFLA WLIC 2018: Transform Libraries, Transform Societies



Prof. Partha Pratim Das presenting on behalf of NDLI at IFLA WLIC 2018

The 84th World Library and Information Congress was held in Kuala Lumpur, Malaysia from 24th-30th August 2018. This year's theme, "Transform Libraries, Transform Societies" with the tagline: ' Reaching out to the hard to reach' was chosen in recognition of the critical role played by libraries in the development of a nation particularly in their ability to transform societies.

It was one of the headliner events attended by team NDLI this year, owing to the amount of knowledge we gathered, and friends we made. It was heartening to see international collaboration groups working on similar problems, and one of our key realizations were that the digital community as a whole is looking at impact measurement – the changing roles of libraries with the changing needs of society has given rise to new kinds of questions which can perhaps be solved better and faster only when we pledge to come together.

Team NDLI was a part of three particularly relevant panels:

- International Relations: How far have we come and where do we go from here? Progress, feedback and feasibility - National Organizations and International Relations SIG (SIGNOIR)
- Let's work together: collaborating and partnering to achieve IFLA's vision (Session of the President-elect, IFLA)
- IFLA Cultural Heritage in the Community: Assessing the Impact of Digital Libraries

The first session on International Relations that we attended was an eye opener. We came to know of the Silk Route International Library Alliance (SRILA), we re-associated with the members of the BRICS library alliance and made new connections with Russia and Brazil.

On collaboration and partnerships, IFLA laid out 10 charters which are very much aligned to NDLI's own motto of being open and inclusive. We hope to be able to join hands with IFLA further to strengthen our resolve and be able to establish more processes that aid NDLI to keep to these charters.

The third session was on impact assessment. Interestingly, digital libraries across the world are looking at impact assessment rather critically. Impact assessment is both necessary for evolution of our libraries and also for the practical cause of more funding. Digital Libraries itself being a nascent phenomenon, compounded by its wide scope and formative technology infrastructure poses many questions when it comes to impact at this stage. The session had tremendous learnings for an infant library like NDLI where we looked at case studies from more mature counterparts like Library of Congress, Qatar Digital Library and Trove.



The Conference of Directors of National Libraries at IFLA WLIC 2018

All in all, IFLA WLIC 2018 was a key milestone for the team to reassess its product and procedures with further learnings from across the globe, and the possible alliances make us feel really positive about our mission to democratize education. And we are not alone. Very capable teams from every part of the world are working towards a symbiotic knowledge future where anyone, anywhere can learn, share and grow.

### #NDLI SOCIAL



**ICRISAT** @ICRISAT · Mar 6  
 The National Digital Library of India @NDLIIndia has given a citation 2 @ICRISAT for its contribution towards content curation. Over 20,000 information resources including 8000 #publications by ICRISAT scientists and over 12,000 articles related 2 ICRISAT's mandate crops. #agri4dev

**abeer yusuf** @aboutabeer · Sep 12  
 A most excellent piece by @neilhimself on the need to defend #libraries. CC @VPL @pnm\_rasmi @NDLIIndia



## Where Digital Libraries and IFLA Global Vision intersect

The growth of national digital libraries is a response to the changing landscape of information seekers who expect a google experience when they look for content. This year I have become aware of a number of significant initiatives that will change users' concepts about what a library is as well as the way that libraries see themselves.

IFLA's (International Federation of Library Associations and Institutions) Global Vision Summary Report (<https://www.ifla.org/globalvision/report>) provides a vision for the library field and gives ten highlights and opportunities to meet the challenges of an increasingly globalised world.

A number of the themes intersect with digital libraries - access to information, staying relevant in a digital world, collaboration, cultural memory and challenging old ways of library practice.

At my President-elect session at WLIC 2018 in Kuala Lumpur, Dr. Partha Pratim Das highlighted the complexity of designing a digital library and he reflected that dealing with 20 different cataloguing protocols made his work significantly more difficult. To a non-librarian like Dr Das, it must seem very odd that libraries have not collaborated to standardise their resource descriptors in order to make their content more discoverable. Applications to interrogate catalogues have to be developed, further complicating an already complex process.

We all need to be invested in the development of digital libraries, especially those of national and regional significance. Whether the focus is on cultural heritage, such as the Bibliothèques d'Orient; or national and local history such as the National Library of Australia's Trove; or academic repositories and eJournals such as the National Digital Library of India and Indonesia One Search - all of these are making information accessible, keeping libraries relevant and preserving cultural heritage. And the developers of these libraries are working in new ways and in new collaborations to make them happen.

- Christine Mackenzie  
IFLA President-elect  
ALIA Fellow

## NDLI TECH TALK

Budapest Open Access Initiative (BOAI) defined OA as unrestricted and free scholarly accessibility of documents. Open access (OA) scholarly journals are the publications, which are open to all readers & without "any legal or financial barriers". Still, for publishing, the article there involves some cost, which is either borne by the journal publishing institute, organization or by the author. In the Indian context, these "Open Access Journals" are mostly invisible and un-indexed, henceforth many readers are unaware of the rich research content available.

The study found that there are more than 200 Indian OA journals of good quality which are published by organizations like DRDO, NISCAIR, etc. We have developed a model to harvest these OA scholarly journals using OAI-PMH protocol, web crawling, and using other web service tools & techniques. Semi-automatic java programs translate the harvested marc/ XML metadata into DC and LRMI metadata schema. The integration of OA journals to NDLI will not only increase the visibility of these contents in terms of

the h-index and citation index of the journals but will also encourage the researchers to publish their content in open access journals. Presently there are 18 million (1.8 Crore) content available at the NDLI portal. I hope the day is not far away when NDLI will be a central hub for all Indian OA scholarly content and will show a new path to society.

- Samrat Guha Roy  
Assistant Librarian  
Console Room, Central Library  
IIT Kharagpur, West Bengal, India



## EUROPEANA TECH 2018: Gorgeous Data, Glorious Technology - The digital face of culture



Team NDLI presenting on Aggregation in the Wilderness

EuropeanaTech 2018 placed tech firmly at the centre of the European Year of Cultural Heritage and brought together an international network of technical and R&D specialists from memory organisations, research institutions and creative industries to share innovative progress and forecast the technical future of digital cultural heritage. The event took place on the 15th and 16th of May, 2018 at the SS Rotterdam, The Netherlands.

Team NDLI was both a panellist as well as one of the representatives of the advisory board. NDLI presented on "Aggregating in the Wilderness" in the "Aggravated by Aggregation" session providing key learnings from the project on metadata aggregation. With the scale of data, the paradigms change for aggregation when it comes to content, and the 1.7cr+ content that NDLI has assimilated in the last two years contain many learnings on delivering the right content and API performance.

Europeana Tech 2018 was a phenomenal integrator which carved out multifarious scope for collaboration for various stakeholders of the digital library community. It provided us with invaluable glimpses of advances in the use of digital technology in learning pedagogies, knowledge dissemination, heritage preservation and cultural computing.



## “The Future looks fruitful as institutes become more closely linked technically

The EuropeanaTech 2018 Conference brought together over 250 representatives from around the world to showcase, discuss and reflect upon how technical developments within the cultural heritage sector can elicit, inspire and facilitate social engagement by making heritage items more easily shareable, interoperable, linked and uniquely presented.

From Rob Sanderson of Getty making a plea that LOD, should be LOUD (Linked Open Useable Data) to Laurie Arp of Lyrasis's It Takes a Village project, which produced the quintessential guidebook for how humanities and heritage institutes can better sustain open source software, EuropeanaTech 2018 put implementation and usefulness at the forefront, showing that institutes are no longer experimenting or developing in project or institutional silos but for shared initiatives and shared interests. The cultural heritage technical world is becoming more interlinked because of initiatives like IIF or Wikidata where shared interests and needs are explored in a communal way, open to influence, ideas and experiments that help serve the greater good. EuropeanaTech looks forward to helping

foster these communities and connect them to the Europeana Network Association.

The future looks fruitful as institutes' become more closely linked technically and our collections begin to seamlessly flow across the web, providing new insights and new connections.

- Gregory Markus  
Network Association Member  
EuropeanaTech Community Manager  
Netherlands Institute for Sound and Vision



# GALLERY



NDLI Club User Workshop at Virudhunagar Hindu Nadars' Senthikumara Nadar College



NDLI Club Launch Program at V V Vanniaperumal College for Women Virudhunagar Tamil Nadu



(L-R) Dr. B. Sutradhar, Dr .Mityunjay Anand , Dr Sanjoy Kumar Parida, Prof. Partha Pratim Das and Dr Manas Kumar Sarangi at IIT Patna (IDR Workshop (EAST IV))



(L-R) Prof. Partha Pratim Das, Dr. Lata Suresh and Prof. Navneet Sharma at IICA Manesar (IDR Workshop (North VII))



NDLI User Workshop in 68th Foundation Day of IIT Kharagpur



Students attending NDLI User Workshop at St. Agnes School, Kharagpur



Students attending NDLI User Workshop at DAV Model School



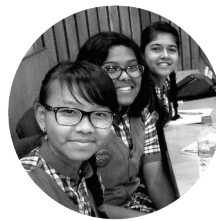
Students attending NDLI User Workshop at Splendour School Kharagpur

## GUESTS' QUOTE



"NDLI is a portal through which lifelong learning can be encouraged. As the first active partner involved in this National Mission Project, NDLI-NERC will work to bridge the education divide within the eight sister states".

– Prof. Gautam Biswas,  
Director, IIT Guwahati.



"We usually study at home from various online resources, so a library like NDLI is really exciting. We cannot wait to go back and introduce NDLI to all our friends at school!"

– Students from Kendriya Vidyalaya,  
IIT Guwahati.



"The explosion of knowledge over the past few decades, that print media alone could no longer keep up with, was where the seeds of digital libraries were sown. Today, it is the responsibility of NDLI-NERC, the first regional centre, to popularize this digital library for all stakeholders as well as take note of the fundamental prerequisites that determine the success of a digital library".

– Prof. Mihir Kanti Chaudhuri,  
Former VC, Tezpur University,  
Advisor, Education Department,  
Government of Assam.



"As research students we often find ourselves using online resources to progress our work. The availability of a portal like NDLI makes this process easier, more reliable, and most importantly, we don't even have to leave our rooms to go to the library anymore, it's in our pockets!"

– Research students,  
IIT Guwahati.

## PAST EVENTS

- Aug'18:** IFLA WLIC 2018, Kuala Lumpur, Malaysia
- Sep'18:** IDR Workshop (North VII) Gurgaon, IICA IMT Manesar
- Sep'18:** IDR Workshop (EAST IV) Patna, IIT Patna
- Oct'18:** FORCE 2018, The Future of Research Communication and e-scholarship, Montreal, McGill University
- Oct'18:** NDLI Club Launch and User Workshop at V V Vanniaperumal College for Women Virudhunagar, Tamil Nadu

## UPCOMING EVENTS

- Nov'18:** National Seminar on Digital Resource Management Technology, Kolkata
- Nov'18:** ICDT 2018, NLU Delhi
- Nov'18:** PLANNER 2018, Agartala Infflibnet & Tripura University
- Dec'18:** IDR Workshop (WEST V) NMIMS, Mumbai
- Jan'19:** India Public Library Conference 2019
- Feb'19:** IDR Workshop (NORTH VIII) BITS Pilani

## NATIONAL DIGITAL LIBRARY OF INDIA

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