ISSN 0972 - 4222

A Quarterly Publication of ADINET, Ahmedabad

alinet NEWSLETTER

Vol. 21 No. 4
Oct-Dec 2014

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Published by : Ahmedabad Library Network (ADINET)

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From Publisher's Desk

Dear Friends,

The present year twenty fourteen will soon be over and we will be entering into the New Year. May this New Year bring health and happiness

wealth and wisdom

peace and prosperity

and also love and laughter !

Most important may we have more faith and trust even the difficult situations, for they are necessary for our progress and growth.

"Faith sees the invisible

Believes the unbelievable

and

Receives the impossible"

This issue contains some interesting news and also very useful study conducted by Dr. Rashmi T.Kumbar on "Children's National Science Digital Library for India"

Children's National Science Digital Library For India : A Study

0. Introduction

Education is essential for all and is fundamental for holistic development of the future generation. Excellence can be achieved when there is quality infrastructure. In a globally integrated and highly competitive world economy, multi stakeholder partnership initiatives can be effective in supporting and even expediting the ongoing education reforms, especially developing quality infrastructure for a more sustainable education. Education has continued to evolve, diversify and extend its reach and coverage down the history, especially school education. The vision of school education is to ensure education of equitable quality for all and to fully harness the nation's human potential. The Right to Education Act 2009 became operational in 2010 which is a landmark year for education in India. This has now made education compulsory and free for children between the age six and fourteen years. At the secondary level, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) was also launched in 2009, which has helped to improve physical facilities in schools that include libraries and ICT among many others.

1. Introduction of ICT in School Education:

World is standing at the cusp of technology and pedagogy. Technology led innovation is leading in education space and is making the classroom more engaging for students. Majority of the schools recognised the advantages of ICT and have moved into digital environment.

The year 2011 saw India making a major push towards digitising education. Introduction of smart classrooms as ICT tool has enabled children to visualize various topics and offer open feedback. But lack of information, training, initial inertia has messed up the adaptation of these tools. With effective training at the initial stage, technology introduction will help in closing the gap between the available facility and its usage.

2. Notable Digital Library Initiatives in India:

In the recent past, India has taken number of proactive measures to promote Science, Technology, Engineering and Mathematics (STEM). Some important programmes that have made a mark are

- INSPIRE
- Kishore Vaigyanik Protsahan Yojana (KVPY)
- Homi Bhabha Centre for Science Education

Efforts have been made to create interest in pure sciences, infuse creativity and thus provide the required exposure. Prominent among them are National Council for Science and Technology Communication (NCSTC), Vigyan Prasar, National Science Museums, Science Centres, Science Cities, Community Science Centres and many others which have been contributing

significantly to promote science education among children. The NCSTC, for the last 19 years has been even holding 'Children Science Congress' where in school children participate in large number and present their innovations, ideas, experiments, experiences, etc.

Earlier most of the libraries used to contain information in the form of books, journal articles, photographs, etc. in printed form. With the onset of computers, came digital media like CD-ROMs wherein the voluminous information could be stored in an amazingly small space. A digital file can be used to create any number of copies without damaging the file. A large number of users can access the digital information simultaneously from remote location.

- One can build a digitized collection by any one of the three methods. viz, (1) by providing access to free or licensed electronic resources, (2) by digitization or (3) by creating library portals for valuable Internet resources. It has been observed that World Wide Web being a platform for publishing, delivering and providing access to information, has resulted in creation of plenty of scholarly content, useful to academic community. Some of the popular examples in this type of digital libraries are INFOMINE, INTUTE, Internet Public Library (IPL2), National Science Digital Library (NSDL), International Children's Digital Library (ICDL) and many others. Taking a cue from the happenings at the international level, India has also taken steps towards creating digital libraries. Some of the initiatives are
- Sakshat Portal (NME – ICT) which is considered a s a one stop education portal.
- National Science Digital Library (NSDL) at NISCAIR, India (NSDL India) which targets the higher education sector and mainly focuses on hosting under graduate and post graduate curriculum related text books.
- Digital Library created by Vigyan Prasar under DST, Government of India is hosting the books published by Vigyan Prasar.

India has a valuable collection of manuscripts reflecting the intellectual capital and contributions in different fields especially in science subjects, made by our ancestors. Libraries being repositories of knowledge are making their own contributions in collecting, organizing and preserving the valuable information for the benefit of the academic community.

3. Concept of Children's National Science Digital Library:

It is common knowledge that science resources required by school students, right from kindergarten to class twelfth are hard to find in Indian school environment. Lack of awareness and funding, many a times results in many scientific work of Indian origin never comes to the forefront and this may hamper the knowledge process. Moreover, access to international resources limits Indian children's understanding due to local variations. Non availability of science resources in regional languages is another issue for the rural students who want to pursue science and are unable to do so. So there is a dire need to identify, organize and give access to Indian science digital resources and research initiatives in Indian languages to give a wider choice to the school students. It was felt that a separate study is essential to understand this trend and also to find out the means to reach out to larger audience in inculcating scientific attitude among children at various levels. Hence this study was undertaken with the following major objectives:

- To assess and analyse the need for creating Children's National Science Digital Library for Indian Resources (CNSDLI).
- To design and develop a model of Children's National Science Digital Library for Indian Resources.
- To propose policy guidelines to identify, collect, organize and provide access to science digital information resources including resources of Indian origin.
- To examine whether the proposed digital library will serve as a platform for preservation and promotion of Indian science literature.
- To assess, whether the proposed digital library will be an effective pedagogic aid to enhance the science teaching and learning process in schools.

Considering the size and diversity of our country in all respects, the creation of a digital library for children at the national level is a mammoth task. This being an academic study proposes only a model and provides broad guidelines for creating Children's National Science Digital Library for India (CSDLI). The field of science is very vast and hence the study concentrated on basic sciences pursued at the school level. The study is limited to only digital resources which are made available in electronic format and that which are mostly in open access domain. This study does not cover the process of digitisation of existing print materials rather it focuses on identification, collection, organisation and providing access to available scholarly resources.

It is hoped that this study will compliment the efforts being made by the state and central governments in popularising science education among Indian schools.

4. Methodology :

4.1. Data Collection :

The study has used an unstructured open ended questionnaire method in which set of questions focussing on the roles and performances of the representative groups of samples were designed. The questionnaires were administered through the mail to the selected samples and answers were sought. Added to this, the

researcher has explored the opportunities of meeting directly the available samples and interacted with some of them. This was further consolidated with interaction with the librarians, teachers and students. This type of multipronged approach has given substantial evidences to understand the need and issues involved with the establishment of the Children's National Science Digital Library for India (CNSDLI). Few experts representing the working librarians, Library and Information Science teachers and directors or managers of the networks were identified and discussions were held. This paved way for getting clarity of the processes, modalities and other technical and administrative problems in establishing the Children's National Science Digital Library for India (CNSDLI)

4.2 Data Analysis:

The data collected through four different set of questionnaires from four different groups as stated above is consolidated to draw the conclusions. Opinions and experience of different category of samples are noted and analysed in detail. Some selected common features in their statements have been examined to formulate the necessary issues. Content analysis is done to identify opinions and experiences shared by different category of samples supporting the professional norms and guidelines. Direct observation of select library operations and interactions with professionals have added value to the analysis. Having the awareness of the structure and functions of the existing digital libraries, a serious attempt is made to integrate the ideas with the analysed inferences to develop the model of Children's National Science Digital Library for India (CNSDLI).

The vision of proposed CNSDLI is to be a state of the art national digital repository and gateway for preserving, promoting and accessing the Indian contributions in the field of Science and there by promoting excellence in teaching and learning science at the school level. The mission of the CNSDLI is to serve as a catalytic tool to preserve, showcase the Indian science literature in digital form. It will also serve as an aid to inculcate scientific temper among school going children through teaching and self directed learning.

5. Important Findings of the Study:

- Overall observation of the science education policy makers, digital library experts, school librarians and science teachers is that, there is a n immediate need for establishing a National Science Digital Library for Children in India.
- A school library has an important role in promoting science education and will act as a catalyst.
- Training and continuing education programmes i n ICT for empowering the teaching community at different levels is in a slow pace.
- Digital technology has made visible inroads in the Indian society and considerable amount of digital information resources are being developed in science arena.
- Teachers' exposure to digital information resources and the willingness to cope up with the complexities of emerging technology is a major constraint in developing school libraries.
- Collection development policy is yet to be developed and a national consensus is yet to be sought.
- There is a lack of initiatives to design and develop the standards and specifications required for redesigning the school libraries in tune with the emerging technology.
- This being a model to be adopted and implemented at national level, one of the established institutions can take the responsibility, co-ordinate the efforts and implement.
- There is an urgent need to identify, select, collect, organize and provide access to increasing amount of science literature generated in India even in regional languages.

6. Selected suggestions:

- There is an urgent need for a national policy covering every possible aspect to rejuvenate the school libraries.
- The recommendations of the National Knowledge Commission need to be considered in true spirit to develop a mechanism to support essential technological facilities.
- Training teachers to use the digital library and regularly update their skills
- EDUSAT facility to organize educational programmes by linking to the proposed National Science Digital Library.
- A national level committee consisting of experts from communication technology, networking technology, media, education policy formulators, including teachers should be constituted to guide and suggest effective implementation and thereafter its operation.
- In order to handle the complexities of copyright, Intellectual Property Rights, Digital Rights Management, etc, an expert committee should be formed.
- Digital information literacy programmes be organised from local, regional and national levels to empower the users.
- National Mission on Libraries needs to be re-aligned by allocating responsibilities of monitoring and guiding school libraries.
- Proper mechanism should be developed for promoting science resources in digital form over the mass media as well as social media.

7. Conclusion:

The education world is waking up to embrace digital technologies. Recent advances in technology infrastructure have led to unprecedented access to digital information resources in primary and secondary schools. Currently, schools in urban and semi-urban areas are preparing the solid ground for adopting technology based education using digital information resources. Increasing provision for separate audio visual rooms and Internet connectivity is increasing the number of students who indulge in self learning to become a part of the global community. The scholarly resources available on the web in their organized form (Digital Library) have become an integral part of school curriculum and serves as tool for enhancing quality education particularly in science.

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Useful Information

On 2nd December, Journal's publisher Macmillian announced that all research papers from Nature Publishing Group (NPG) will be made free to read in proprietary screen-view format which can be annotated but not copied, printed or downloaded.

The content-sharing policy, which also applies to 48 other journals in Macmillian's Nature Publishing Group (NPG) division, including Nature Genetics, Nature Medicine & Nature Physics marks an attempt to let scientists freely read & share articles.

ReadCube, a software platform similar to Apple iTunes, will be used to host and display read-only versions of the articles published by NPG in PDF's. Source: www.nature.com/news/nature-makes-all-articles-free-to-view

LIS Publication

ADINET has started the LIS News Digest in an electronic form both in (English & Gujarati) from the month of October, to announce the latest developments & current trends in the LIS field.

Use of Social Media by the Library

Social media has the potential to facilitate close relationships between libraries and their patrons, wherever they are based and however they choose to access library services and resources. A white paper has been researched and complied by Taylor & Francis to provide an overview of current practices relating to the use by libraries of Social Media, from a world-wide perspective, against which individual institutions can benchmark their own activities & be inspired to try new approaches. source:http://www.tandf.co.uk/libsite/whitePapers/socialMedia/

Forthcoming Event

INFLIBNET Centre in collaboration with Himachal Pradesh University and Indian Institute of Advanced Study, Shimla is organizing 10th International CALIBER 2015 at HP University, Shimla from 12th to 14th March 2015 on the theme Innovative Librarianship: Adapting to Digital Realities. for More details http://www.inflibnet.ac.in/caliber2015/index.php

Welcome

to New Members

ADINET welcomes new members into its growing community. Following professionals joined as Life Members of ADINET during this quarter:

1) Mr. Ranjan S. Makwana, Gujarat Vidyapith, Ahmedabad
2) Ms. Kokila R. Goswami, Gujarat Vidhyapith, Ahmedabad
3) Ms. Bhavana B. Makwana, Gujarat Vidhyapith, Ahmedabad
4) Ms. Kashmira K. Vyas, Gujarat Vidhyapith, Ahmedabad
5) Mr. Dinesh M. Patel, M. M. Chaudhari Arts College, Sabarkantha
6) Mr. Babu N. Patel, T. M. Shah Mahila Arts College, Sabarkantha
7) Ms. Bhakruti N. Rashtrapal from Ahmedabad
8) Ms. Sonali C. Parikh from Ahmedabad.
9) Ms. Anubha Arora from Ahmedabad.