Emerging Functions and Activities of Library Consortia with reference to Best Practices in LICs of Higher Education in Assam

Nabin Chandra Dey   *Sanjay Kumar Singh*   *Prasanta Kumar Deka*

Abstract

When the question of library resource sharing arises, it primarily indicates the books and journals, but why not share the other resources used for resource sharing. During the last century a lot of changes have taken place in the field of library cooperation starting with the production of union catalogues to shared integrated library systems. Library consortium is a terminology evolved to encompass all sorts of cooperative activities by modern libraries. Subscription of electronic resources is not the only function of a library consortium; it can provide many valuable and indispensable services to the member of libraries. A properly planned library consortium with good leadership can go a long way in serving the libraries by proving value added services. Many factors are responsible for consortia formation and many a times consortia are formed by the libraries by looking only on its benefits. The paper highlights the emerging areas of resource sharing among libraries through library consortia and discusses the issues and challenges faced by the library professionals of LICs of higher education in Assam in the digital era. It also highlights the application of ICT for digital library, the role of NAAC, NKC, and at the end a few suggestions are given for the betterment of college library services in Assam. It is the need of the hour that all college libraries of Assam must go for automation, which will lead towards the digital initiatives of Govt. of India towards Digital India movement.

Keywords: College Library, Consultancy Services, Digital Library, Digital Repository, E-Resources, ICT, INFLIBNET, Inter-library Loan, Issues and Challenges, Library Consortia, NAAC, NKC, Open Access Initiatives, Union Catalogue

1. Introduction

Today, is the age of explosion of literature, whether libraries and information centers have digital resources to make available accurate information to the users from several e-resources or not? Information in digital form has become mainly indispensable need of an academic fraternity. Users are nowadays demanding information in basically digital form. During the emerging process of digitization, printed resources are being transformed to electronic form and the new category of resources, so created is termed as e-resources. The accurate, fast access and delivery of digital information online directly to the individual's system save the time. Its 24x7 availability of e-resources, increase the usage at any point of time. For e-resource generation ICT is directly involved in the activities like composing, printing, scanning, imaging, storing, processing, retrieving and transmitting the information. E-

resources have better features over print resources viz easy to handle information explosion, easy to handle users' explosion, faster access to information, low maintenance cost, minimum storage space, better quality information, etc. For electronic resources usage study and requirement for accessing e-resources regularly are the need of the hour. As learning is a lifelong process, so time and experience of an individual will make the system gradually updated. It will develop its aptitude by sharing knowledge of human beings. To manage e-resources in the digital era has become a challenging task for all library professionals of Assam.

There are 7 Govt Colleges, 295 Provincialised Colleges, 10 Universities (2 Central Universities and 8 State Universities), 1 Agricultural University, 1 Medical University, 1 Technological University, 1 Women's University, 1 NIT, 1 IIT and 3 private universities in Assam. Gauhati University, Guwahati; Dibrugarh University, Dibrugarh; and Assam University, Silchar are the affiliating universities in Assam. The INFLIBNET Centre Gandhinagar is playing a major role in the development of college and university libraries of Assam. The role of INFLIBNET Centre is diversified in nature and it supports the college and university libraries of not only the state of Assam but the entire states of north eastern region of India by providing manpower training, e-resources, library automation software and other related activities free of cost under NERO scheme. It helps in the creation and management of Digital Library, Digital Preservation and Conservation of materials. This scheme is made available to only those colleges and universities of region, which are recognised by UGC under 12B and 2F section of the UGC act 1956.

The emerging area of resource sharing among academic libraries through library consortia is the need of the hour. Electronic licensing and negotiations are not the sole activities of a library consortium as understood by majority of us. Rather, a library consortium provides a host of other services in the form of union catalogue, inter library loan, open access, cooperative collection development, shared print storage and archiving, users and staff training, shared integrated library systems, shared discovery and delivery systems, shared digital repositories where technology plays a very vital role. Pandian and Karisiddappa (2003) suggests that in an ideal library consortia environment all the facilities provided to the patrons of each member libraries are to be through a single web enabled window system with access to the entire collection of consortium member libraries. Prasad (2007) citing the example of an open source software suit reSearcher states that the software suit was originally designed to be deployed by library consortia, allowing one installation to support multiple institutions thereby saving a significant cost of buying commercial softwares. reSearcher suite includes CUFTS (online serials management system), GODOT (an OpenURL compliant system) and dbWIZ (a federated search engine) and CM (citation manager) from Simon Fraser University, Canada. Library consortia are expanding and diversifying their activities to meet the changing needs and demands of the library fraternity.

2. Emerging Functions and Activities of Library Consortia

Library consortia might have originated for the purpose of electronic content licensing, but they have diversified their activities and functions by exploring the other areas of library operations to

provide complete facilities to the member libraries. Library consortia have started providing specialized services to the member libraries by hosting almost all the required facilities to run a library, be it a shared integrated library system or a shared print archive. Many of the outsourced library activities viz. IT applications, human resource development, consultancy services is being taken over by library consortia. The emerging areas where library consortia are providing active services have been discussed below:

2.1 Union Catalogue

Library consortia prepare traditional union catalogues by collecting bibliographic records in either MARC format or CCF format from individual member libraries and merging into their union catalogue database. These traditional union catalogues were made available online through consortia websites for inter-library loan, collection development, copy cataloguing and retro conversion. For example, INFLIBNET's IndCat: Online Union Catalogue of Indian Universities (1,39,91,556 books, 2,69,983 theses and 35,248 serials) and DELNET's Union Catalogue of Books (2,28,45,202 records). But one drawback of the traditional union catalogue is that the real time status of the availability of a book in a particular member library is not known. Cloud computing facilities have given an edge to the library consortia in hosting shared integrated library systems for the member libraries and now many libraries are using such systems, creating uniformity in bibliographic records and automatic creation of virtual union catalogues of all the member libraries which are updated in real time. Almost all the library consortia registered with the International Coalition of Library Consortia (ICOLC) provide union lists or shared online catalogs to the member libraries.

2.2 Inter-library Loan

Interlibrary loan (ILL) is one of the earliest forms of library cooperation and in the consortia environment it is getting more and more organized. Chen (2013, p. 61) states "Each ILL and document delivery transaction is an opportunity for the library to market its services". Chen demonstrated how the signing of an agreement between the Shanghai Library and CALIS consortium (the China Academic Library and Information System) to carry out interlibrary loan and document delivery services substantially increased the interlibrary loan requests and the number of requesting libraries. Echeverría and Jiménez (2011) found in their study that researchers in Spain prefer to use document supply services instead of using low rank e-journals. Arora and Agarwal (2004, p. 6) added "Since INDEST Consortium does not subscribe to all resources for all its members, the document delivery and inter-library loan is considered crucial to the success of INDEST Consortium and most electronic publishers allow inter-library loan wherein a library subscribing to a given electronic resource in full-text can take a printout of a paper and send it to the requesting library." The J-Gate Custom Content for Consortium (JCCC) designed especially for INDEST Consortium facilitates generation of automated inter-library loan requests directly by a user to one of the IITs, IISc and IIMs. Visakhi (2009) points out that the CeRA website has a special provision for ILL under JCCC service, where users can interact with consortium administrator through online chat to solve their problem. Many specialized softwares are available for handling ILL requests and document delivery. For example OCLCs ILLiad, an ILL request management software Program.

2.3   Shared Integrated Library Systems

According to Machovec (2014, p. 435) "Shared integrated library systems (ILS) have been the core service for many library consortia. In the first decades of integrated library systems the cost of servers and storage was a substantial portion of the cost of an ILS, whether standalone or shared. In many cases this cost alone encouraged libraries to work in shared systems". But with the recent developments in server technology, internet and next generation ILS, cloud based services have gained a momentum among the libraries. It is estimated that the entire library transactions of the whole world can be handled by a handful of high end servers in the cloud computing mode. Arora and Agarwal (2004, p. 8) opined that the consortium can help libraries to share expertise, save costs and enable library staff to concentrate on providing services to their users rather than developing computing infrastructure. Library consortia can host cloud based shared integrated library systems for its member libraries making them free from maintaining servers 24 X 7 in air conditioned rooms. This will save huge money in hardware infrastructure, manpower and server maintenance. Wiser (2012, p. 44) pointet out "that more resource sharing consortia do not exist is primarily a function of the variety of Integrated Library Systems (ILS) in the market. For many resources sharing consortia to function successfully, most libraries within those consortia have to agree to operate the same ILS". Machovec (2014, p. 438) further add that considering a shared integrated library system in a consortium is one component of budget reductions and long term sustainability. Koha, an open source integrated library management systems can be web hosted in a shared environment in the cloud.

2.4   Shared Discovery and Delivery Systems

Many libraries and consortia in recent years have developed web portals to provide a customizable interface to retrieve information aggregated from a variety of sources in a single window. Such library portals apply various discovery interfaces such as WorldCat Local from OCLC, Summon from Serials Solutions and EBSCO Discovery Service, etc. Library consortia can explore hosting of shared discovery and delivery systems for its member libraries. Pandian and Karisiddappa (2004) points out "Interoperability is a key issue for resource discovery in a library consortia environment." They have advocated for Z39.50 protocol for interoperability, which is an international standard protocol used by networked computer systems for information retrieval in a distributed environment. Recently, Triangle Research Library Network (TRLN) has announced replacing the existing Endeca-powered library catalogs and Search TRLN with a new shared discovery service aligned more closely with TRLN's current context either with Blacklight or VUFind. (www.trln.org).

2.5   Shared Digital Repositories

Every web based library services can be hosted in a cloud environment and digital repository is no exception. Many commercial and open source softwares are available for creating digital repositories. Hosting shared digital repository can be another consortia service to its member libraries relieving them from maintaining a local server and concentrating more on core library activities. The Colorado Alliance of Research Libraries host an Alliance Digital Repository powered by open source Fedora/Islandora service for its member libraries. (www.coalliance.org). The Washington Research

Library Consortium hosts the American University Digital Research Archive at its headquarter. (www.american.edu). The Texas Digital Library hosts secured and professionally managed DSpace powered digital repositories for its member institutions in the Amazon Cloud. (www.tdl.org/repositories/). INFLIBNET's Shodhganga is a shared platform for hosting the ETDs of the Indian universities powered by DSpace.

2.6   Shared Print Archiving

According to Machovec (2013, p. 201) in shared print archiving, libraries work together to determine what to retain and what to weed out as more numbers of journals and books are digitized and offered through different venues. It opens the door for libraries to consider what to do with their legacy print collections. Library consortia can collaborate with the members in tackling the problems of print archiving. Jilovsky (2013, p. 282) stated that, a shared print repository can act as a cost- effective solution in ensuring the retention of a "last copy" of lesser-used items from the member libraries. The Committee on Institutional Cooperation (CIC) a consortium of the Big Ten universities plus the University of Chicago launched the CIC Shared Print Storage project in July 2011 to centrally store back issues of Elsevier, Wiley and Springer journal volumes of CIC participating libraries. (www.library.wisc.edu). As of June 20, 2016, Center for Research Libraries (CRL) has created the JSTOR Print Archive with more than 88,071 volumes. (wwww.crl.edu). CAVAL, an Australian Library Consortium owns and operates the purpose-built CARM (CAVAL Archive and Research Materials) storage facility on behalf of its members, preserving and providing access to over a million research volumes deposited into a shared collection by member libraries for the benefit of future generations of scholars. (http://www.caval.edu.au/member-services.html).

2.7 Open Access Initiatives

Many library consortia (for example Boston Library Consortium, South African National Library and Information Consortium, Electronic Information for Libraries of Italy, Spanish National Research Council Library and Archives Network and many more) are now advocating for open access and other changes in scholarly communication to narrow the gap between information and users. There is remarkable progress in the open access movement after the suicide of an open access technology activist Aaron Hillel Swartz in 2013 who was facing prosecution for bypassing security blocks at M.I.T. to download more than four million articles from the online academic repository JSTOR (Grossman, 2013). Swartz also played a key role in defeating the controversial Stop Online Piracy Act (SOPA). Posner (2012, p. 122) adds "Publishers are using the advent of digital information to argue that they need greater protection from piracy, placing more liberal sharing of information by libraries (and fair use by the public) under attack. If publishers and governments limit or simply do not allow the sharing of digital information among libraries, and information becomes primarily digital, then there will effectively be no resource sharing. Therefore, in order to continue to connect information and people, librarians need to be aware of the license terms they are agreeing to, and work with publishers and legislators so that public rights are maintained and publishers can collect copyright fees as required."

The Sponsoring Consortium for Open Access Publishing in Particle Physics (SCOAP³) is one of the world's largest open access initiatives involving an international collaboration of over three thousand libraries, library consortia and research organizations. SCOAP³ enjoys the support of funding agencies and has been established in co-operation with leading publishers. The SCOAP³ model is based on a lightweight central administration, which arranges payment of Article Processing Charges at a competitive level, through funds made available from a redirection of former subscription money. Participating libraries redirect the money previously used for subscribing to the SCOAP³ journals into a common fund, from which the publication costs are paid. This redirection is possible as all publishers are reducing or eliminating subscription costs to the SCOAP³ journals and credit all their clients respectively (https://scoap3.org/what-is-scoap3/). Directory of Open Access Journals (DOAJ), Directory of Open Access Repository (DOAR) are other open access initiatives under the Budapest Open Access Initiative.

2.8 Professional Development

Library consortia are actively engaged in organizing seminars, workshops and training programs for overall development of library professionals as well as library users. Csajbók, Szluka and Vasas (2012, p. 338) pointed out that "the user's IT knowledge is not sufficient to use effectively the electronic resources in online databases, hence end-user training is much needed, and the responsibility for providing this training must also fall on the consortia." According to Arora and Agarwal (2004, p. 6), "Training programmes is a crucial requirement; a consortium has to fulfill to facilitate optimum use of subscribed electronic resources. Training programmes act as a bridge to facilitate better communication amongst members of the consortium and find answers to common problems." Users are given training in searching techniques and other features of the publisher's as well as consortia portals.

2.9 Software Development

Library consortia have not lagged behind in developing library softwares or customizing existing softwares to meet local requirements. DELNET has developed the DEL-PLUS library management software and is providing Koha customization services to the libraries. (http://delnet.nic.in/software-development.htm). Evergreen is an open source Integrated Library System (ILS), initially developed by the Georgia Public Library Service for Public Information Network for Electronic Services (PINES), a statewide resource-sharing consortium with over 270 member libraries (https://en.wikipedia.org/wiki/Evergreen_software). SOUL (Software for University Libraries) is an endeavor of INFLIBNET for automation of college and university libraries in India having installation in 2834 Institutes as on March 31, 2014. (http://www.inflibnet.ac.in/soul/)

2.10 Mentoring and Consultancy Services

Library consortia are providing consultancy services in library modernization, library digitization, re-engineering library services, performance evaluation of libraries and many more. DELNET has engaged many retired and experienced library professionals as consultants in its various coordination units to interact with its member institutions. (http://delnet.nic.in/coordination-unit.htm). CAVAL provides consultancy services in library reviews,

metrics and strategy, digitisation, storage and preservation. (http://www.caval.edu.au/training-services).

3. Issues and Challenges

The various common issues and challenges the library professionals are facing in performing day to day activities of a library in the digital era are shown below:

❖ Institutional Repositories (IR) of individual colleges of Assam.

❖ Copyright, IPR and Digital Right Management.

❖ Use of e-resources viz NLIST programme and open sources.

❖ Preparation of database and bibliography of individual colleges.

❖ Sending a prompt reply to any query or letter.

❖ Independent web page for individual college library.

❖ Regular updating of library websites.

❖ Hands on training in the use of the OPAC.

❖ A library brochure containing rules and regulation must be provided to the new user.

❖ Giving prizes for best library users every year.

❖ Internet connectivity rather wifi connectivity must be available in each and every college.

❖ Time Management should be priority of college.

❖ Application of TQM in College Libraries.

❖ Step motherly treatment should not be shown in case of library.

❖ If the college library is not properly developed, that college will never prosper in the academic society and never get better grade by NAAC.

❖ It is most important that the principal of a concerned college should take special initiative for the betterment of the respective college library.

❖ The Govt. of India, Assam, UGC, NAAC, NKC are seriously concerned as to how to improve standards of education and improve quality in the university and college libraries.

❖ College authority should give importance to their respective college library for the infrastructure and resources development.

4. Problems in College Libraries

The common problems faced by the library professionals of college libraries in Assam are highlighted below:

❖ Manpower

❖ Financial

❖ Administrative

❖ Infrastructure

❖ Managerial

❖ Copyright, Digital right, IPR

❖ Skill Development

❖ Information Literacy

❖ Status of College Librarians of Assam

5. Managing Library Resources in Assam

North East Region of India has attracted attention of the Govt. of India and the Govt. of Assam since

two decades for overall development of the region which consists of seven sister states and in 2001 Sikkim has been included in NER as the eighth state. The state has also experienced the changes in the library automation and networking activities, which are mainly due to inclusion of university and college libraries for financial assistance under INFLIBNET Programme. It is made possible by the initiations of information infrastructure development of college libraries, and database creation work for library automation and networking.

6. ICT Application for Digital Libraries

With the pace of technological advancement, the users are reluctant to visit the library rather they prefer that libraries should go to the door of the users. This can be achieved through digital libraries. Following are the application of ICT towards emerging trends in digital libraries:

* ❖ Explosion of Literatures
* ❖ Financial Crunch
* ❖ Viewed as outdated and under rated
* ❖ Technological Advancement
* ❖ Libraries should go to the door of users
* ❖ Specific information needs
* ❖ Global information hub
* ❖ New communication Technology
* ❖ Initiative by Govt. of Assam
* ❖ Society will witness a no. of Digital Libraries
* ❖ Designations of library professionals are changing

7. NAAC suggested a set of best practices for college libraries:

NAAC is regularly visiting college and university libraries of India at an interval of ten years and provides specific and pinpointed suggestions for its development. Following are some of the suggestions put forward by the NAAC as a set of best practices for college libraries:

* ❖ Computerization of library with standard software.
* ❖ Inclusion of sufficient information about the library in the college prospectus.
* ❖ Compiling student/ teacher statistics.
* ❖ Displaying newspaper clippings & maintained periodically.
* ❖ Career/ employment information services through Career Counseling unit.
* ❖ Internet facility to different user groups.
* ❖ Information literacy programmes.
* ❖ Suggestion Box.
* ❖ Displaying new arrivals.
* ❖ Conduct book exhibition on different occasions.
* ❖ Organizing book talks,
* ❖ Instituting Annual Best User Award for Students.
* ❖ Organizing Competitions annually.
* ❖ Conduct user survey periodically.
* ❖ Institutional Repositories (IR).
* ❖ Regular updating of web pages.
* ❖ Cleanliness in the Library and College.

8. National Knowledge Commission (NKC)

In 2005 the Govt. of India had set up a National Knowledge Commission (NKC) under the chairmanship of Sam Pitroda to find out knowledge strength. A few important recommendations of NKC are given below which are very much helpful for libraries:

❖ To set up a National Mission on Libraries.

❖ To prepare a National Census of all libraries.

❖ To re-access staffing of libraries.

❖ To set up a central library fund.

❖ To modernize library management.

❖ To encourage greater community participation in library management.

❖ To promote ICT application in all libraries.

9. Suggestions

Following are some of the suggestions which will be very much helpful and useful to the library professionals. Govt. of Assam must take special initiative to solve these issues which are related to the government at an early date for the smooth functioning of the college libraries.

❖ Library Automation must be initiated in the remaining College Libraries of Assam.

❖ Each college library should develop their own websites and also take part in the networking programme among them for resource sharing.

❖ Colleges may be provided with CC TV, RFID and other ICT devices for the better services.

❖ As on 14th May 2017 only 193 college libraries are subscribing e-resources provided by INFLIBNET centre, so it is the immediate need of the hour to provide maximum facilities in this regard.

❖ E-resources from open sources are also to be procured by each College Libraries of Assam.

❖ Orientation program on the basics of how to access the library must be conducted for every session for new students.

❖ Information Literacy as an information empowerment and how far a librarian contributes to the development of IL skills.

❖ A post of Assistant Librarian should be sanctioned by the Govt. of Assam, where more than 20000 documents are available for rendering most effective services to the users.

❖ If the college libraries are set up in different floors of a building, then the staff strength must be taken care for rendering effective services, so the library staffs need to be recruited wherever needed.

❖ Financial assistance from the concerned authorities to develop more infrastructure and well trained staff in a phase manner is highly suggested.

❖ A librarian should always be on time and ready to work with full dedication.

❖ Academic status for College Librarians of Assam must be accorded by the govt at par with Assistant Professor/Associate Professor.

❖ Professional ethics must be present in the College Librarians of Assam.

10. Conclusion

More and more information is being exchanged faster than ever before. Diminishing library resources have forced the libraries to explore more and more avenues for resource sharing and library consortia are increasingly penetrating more and more into the cooperative activities of the libraries. Cloud computing has opened enormous opportunities for library consortia. The bonding among libraries and consortia will grow stronger in the future provided both the stakeholders are mutually benefiting. The government funded consortia are experimenting with more services without considering much about cost benefit ratio; but in case of self-financed consortia, cost benefit analysis is a must before experimenting with any new idea. Library consortia are broadly categorized as buying club consortia and resource sharing consortia. Buying club consortia are under more stress to manage budgets, select appropriate resources and demonstrate their value, whereas a lot of opportunities are waiting for resource sharing consortia.

In Assam, slowly this culture is evolving. The college library professionals of Assam should make use of this modern technology like the Internet, Google, Web Technologies and many more such devices as a ladder in order to satisfy the high expectations of the users in this technologically changing world. For managing library resources in the modern era, the existing ICT facilities are not up to the desired level due to inadequate budget, unskilled staffs and lack of suitable policy in those college libraries which has not received the special grant by the state govt. Effective use of ICT improves the status of LICs and its services more efficiently. Today information is POWER and how should we provide power to users? Only quality information services through ICT can provide POWER in Digital Era to satisfy all categories of diversified users. Then only the issues and challenges of library professionals of Assam in the digital era will be fulfilled. The INFLIBNET Centre has already taken the initiative for the creation and management of digital library by providing various facilities.

It is the need of the hour that all LICs must automate their libraries at the earliest, which will lead towards the digital initiatives of Govt. of India towards Digital India movement. The Govt. of Assam should also expedite the process of Digital Assam.

References

1. Adloo, K. (2016). Replacing Endeca for shared discovery service. Retrieved August 20, 2016 from www.trln.org/2016/07/07/replacing-endeca/

2. Arora, J. & Agarwal, P. (2004). Building digital libraries in a consortium mode: Towards a national consortium. In: Madalli, D. P. (Ed.) Proceedings of the Symposium on Consortia Approach to Resource Sharing: Issues and Policies held at DRTC from October 6-8, 2004. Bangalore, Paper E, 29 p.

3. CAVAL. (n.d.). Member Services. Retrieved August 20, 2016 from http://www.caval.edu.au/member-services.html

4. CAVAL. (n.d.). Training and Consultancy. Retrieved August 20, 2016 from http://www.caval.edu.au/training-services

5. Center for Research Libraries. (2016). CRL JSTOR Print Archive. Retrieved August 20,

2016 from https://www.crl.edu/archiving-preservation/print-archives/crl-administered/jstor.

6. Chen, S. (2013). Promoting resource sharing through consortia: A case study of Shanghai Library. Interlending & Document Supply, 41(2), 59–61. doi:10.1108/ILDS-09-2012-0030

7. Coalliance. (n.d.). ADR Islandora Features. Retrieved August 20, 2016, from https://www.coalliance.org/adr-islandora-features

8. Csajbók, E., Szluka, P., & Vasas, L. (2012). Library Consortia in Hungary. The Journal of Academic Librarianship, 38(6), 335-339. doi:10.1016/j.acalib.2012.09.012

9. DELNET. (n.d.). Database Statistics. http://www.delnet.nic.in Retrieved May 14, 2017.

10. Echeverría, M., & Jiménez, S. (2011). Interlending and document supply in the context of Spanish library consortia. Interlending & Document Supply, 39(4), 190-199. doi:10.1108/02641611111187613

11. Evergreen (Software). (n.d.). In Wikipedia. Retrieved August 20, 2016 from https://en.wikipedia.org/wiki/Evergreen_(software)

12. Grossman, W. M. (2013). Digital Activist's Suicide Casts Spotlight on Growth of Open-Access Movement. Retrieved August 20, 2016 from http://www.scientificamerican.com/article/digital-activists-suicide-casts-spotlight-on-growth-of-open-access-movement/

13. INFLIBNET (n.d.). www.inflibnet.ac.in . Retrieved May 14, 2017 from http://shodhganga.inflibnet.ac.in/

14. Jilovsky, C. (2013). The CARM2 print repository: from planning to operations. Library Management, 34(4/5), 281-289. doi:10.1108/01435121311328627

15. Libraries-University of Wisconsin-Madison. (n.d.). Shared Print Projects. Retrieved August 20, 2016, from https://www.library.wisc.edu/collections/library-collections/managing/shared-print-projects/

16. Library-American University-Washington DC. (n.d.). AU Digital Research Archive (AUDRA). Retrieved August 20, 2016, from http://www.american.edu/library/collections/digital_repository.cfm

17. Machovec, G. (2013). Library consortia: The big picture. Journal of Library Administration, 53(2/3), 199-208. doi:10.1080/01930826.2013.853504

18. Machovec, G. (2014). Consortia and next generation integrated library systems. Journal of Library Administration, 54(5), 435-443. doi:10.1080/01930826.2014.946789

19. National Assessment and Accreditation Council (2006). Best Practices in Library and Information Services: Case Presentations. Bangalore: NAAC.

20. Pandian, M. P. & Karisiddappa, C.R. (2003).Technology Issues for Library Consortia in India. In Proceedings of 1ˢᵗ International CALIBER - 2003, held at Nirma Education and Research Foundation, Ahmedabad during February 13-15, 2003. Retrieved from http://ir.inflibnet.ac.in/bitstream/1944/204/2/03cali_35.pdf

21. Pandian, M. P. & Karisiddappa, C.R. (2004). Emerging role of Z39.50 for library consortia in India. In Proceedings of 2nd International CALIBER - 2004, held at Jamia Millia Islamia, New Delhi during February 11-13, 2004, 327-337. Retrieved from http://ir.inflibnet.ac.in/bitstream/1944/351/1/04cali_43.pdf

22. Posner, B. (2012). The ethics of library resource sharing in the digital age. Interlending & Document Supply, 40(2), 119–124. doi: 10.1108/02641611211239614

23. Prasad, A. R. D. (2007). 'reSearcher' an open source software suit for consortia. In Proceedings of 5th International CALIBER - 2007 held at Panjab University, Chandigarh during February 08-10, 2007, 323-329. Retrieved from http://ir.inflibnet.ac.in/bitstream/1944/551/1/323-329 (cal%2007).pdf

24. SCOAP3. (n.d.). What is SCOAP3. Retrieved August 20, 2016, from https://scoap3.org/what-is-scoap3/

25. Singh, Sanjay Kumar (2014). Impact of ICT on Management of Library Operations, New Delhi: Avon Publications.

26. Singh, Sanjay Kumar (2016). INFLIBNET at services of LICs in Assam. In: Lahkar, Narendra ed: Prospects of Consortia for North East India Libraries, Guwahati: DLIS, GU. Pp. 54-62.

27. The Texas Digital Library. (n.d.). Institutional Repositories: Share your research with the world.... Retrieved August 20, 2016, from https://www.tdl.org/repositories/

28. Visakhi, P. (2009). Consortium for e-Resources in Agriculture. DESIDOC Journal of Library & Information Technology, 29(5), 24-30. Retrieved from http://publications.drdo.gov.in/ojs/index.php/djlit/article/download/266/176

29. Wiser, J. (2012). "Playing Well With Others": New Opportunities for Library Consortia. Theological Librarianship: An Online Journal of the American Theological Library Association, 5(2), 43-47. Retrieved from https://journal.atla.com/ojs/index.php/theolib/article/view/237/573

30. www.ugc.ac.in

About Authors

Mr. Nabin Chandra Dey, Assistant Professor, Dept. of Lib. & Inf. Sc, Assam University, Silchar, Assam. E-mail: nabincdey@gmail.com

Prof. Sanjay Kumar Singh, Professor & Head, Dept. of Lib. & Inf. Sc, Gauhati University, Guwahati. India. E-mail: sksgu1@gmail.com

Dr. Prasanta Kumar Deka, Librarian, K C Das Commerce College, Guwahati, Assam. E-mail: dekapk@gmail.com