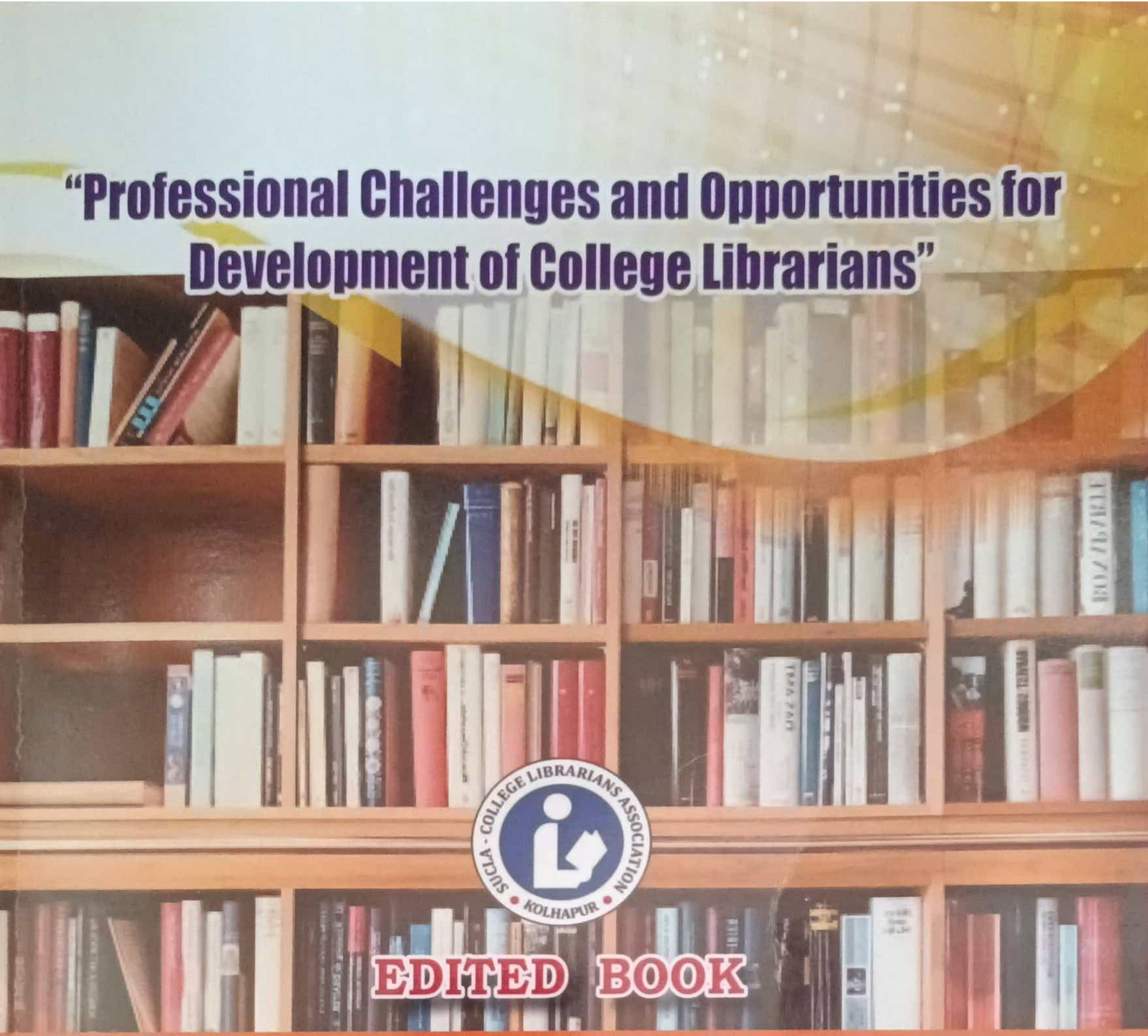
"Professional Challenges and Opportunities for Development of College Librarians"



SUCLA · COLLEGE LIBRARIANS ASSOCIATION · KOLHAPUR

EDITED BOOK

By

Shivaji University College Librarians Association (SUCLA), Kolhapur

"Professional Challenges and Opportunities for Development of College Librarians"

EDITED BOOK

ISBN : 978-93-81249-30-7

By

Shivaji University College Librarians Association (SUCLA), Kolhapur

Editorial Board

1. Dr. Ravindra Pandurang Adav	President, SUCLA
2. Mr. Prashant S. Kalloli	Vice President
3. Dr. Bhagavan Shamrao Padval	Secretary
4. Mr. Tanaji Laxman Kamble	Treasurer
5. Mrs. Urmila Rajendra Kadam	Member
6. Mr. Balaji Abhimanyu Kamble	Member
7. Mr. Mahesh Maruti Kamble	Member
8. Mr. Shivaji Pandurag Kamble	Member
9. Dr. Amol Devaji Khobragade	Member
10. Mr. Pravin Chandrakant Kumbhar	Member
11. Dr. Sudhir Ramdas Nagarkar	Member
12. Mr. Damodar Dasharath Waghamare	Member
13. Mrs. Sandhya Girish Yadav	Member

Contents

ISBN : 978-93-81249-30-7

ISBN : 978-93-81249-30-7

"Professional Challenges and Opportunities for Development of College Librarians"

ISBN : 978-93-81249-30-7

Cloud Computing and its impact on Library Services

Kamble Mahesh

Librarian

PVP Mahavidyalaya, Kavathe Mahankal, Sangli

Abstract *: In this paper, an attempt has been made to give an overview of how service, platform and infrastructure forms of cloud computing have been used to serve library needs. It is a style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service to the external customers using internet technologies. Cloud computing is a new concept in the services which are offered over the internet., It has completely changed the way of use of the power of computers irrespective of any geographic location. The biggest benefit for organizations and businesses is that it offers services using hardware or software or platform of third party sources. It is very economical as it saves cost and maintenance. Cloud computing comes in several different forms. In order to minimize the cost and avoid duplication of resources, infrastructure, software, hardware, manpower use of emerging technologies like server virtualization and cloud computing in libraries are increasing.*

Keywords *: Cloud Computing, SaaS, PaaS, IaaS, Components of Cloud, Libraries and Cloud.*

INTRODUCTION :

Cloud computing is making it possible to separate the process of building an infrastructure for service provisioning from the library of providing end user services. Cloud computing provides people the way to share distributed resources and services that belong to different organizations or sites. Cloud computing share distributed resources via the network in the open environment. It is a virtual pool of computing resources through internet. Cloud computing provides people the way to share distributed resources and services that belong to different Organizations or sites. Many companies, such as Amazon, Google, and Microsoft and so on, accelerate their paces in developing Cloud Computing systems and enhancing their services to provide for a larger amount of users. Cloud computing is broken down into three segments: "application" "storage" and "connectivity." Each segment serves a different purpose and offers different products for businesses and individuals around the world. Libraries are using computers for running services such as Integrated Library Management Software (ILMS), website or portal, digital library or institutional repository, etc. These are either maintained by parent organization's computer staff or library staff. It involves investment on hardware, software, and staff to maintain these services and undertake backup and upgrade as and when new version of the software gets released. Library professionals in most cases not being trained in maintaining servers find it difficult to undertake some of these activities without the support of IT staff from within or outside the organization. Now cloud computing has become a new buzzword in the field of libraries, which is blessing in disguise to run different ICT services without much of a problem as third-party services will manage servers and undertake upgrades and take backup of data.

Types of Cloud Computing :

1) Software as a Service (SaaS) :
2) Platform as a Service (PaaS):
3) Infrastructure as a Service (IaaS):
4) Storage as a service (STaaS)
5) Security as a service (SECaaS)
6) Data as a service (DaaS)
7) Database as a service (DBaaS)
8) Test environment as a service (TEaaS)
9) Desktop virtualization
10) API as a service (APIaaS)
11) Backend as a service (BaaS)

Advantages of Cloud Computing in Library Service:

1. Cost reduction - Ability to increase or decrease the consumption of hardware or software resources immediately and in some cases automatically.
2. Scalability - "Pay as you go" allowing a more efficient control of expenditures.
3. Lower investment, reduced risk - Immediate access to the improvements in the resource proposed (hardware and software) and debugging.
4. Support included - Enjoyment of the most advanced security procedures, availability and performance of providers with experience and knowledge in this type of service.
5. Greater security and accessibility - Access to resources

from any geographical point and the ability to test and evaluate resources at no cost.

6. Portability - since the service is available over the web, the service can be availed through browser from any part of the world.
7. Adjustable storage - In the traditional system, if the server is less than what we have. The server should be replaced with the new one. In this computing, the storage capacity can be adjusted according to the needs of the library, since the storage is controlled by the service provider.
8. Cloud OPAC - Most of the libraries in the world are having the catalogue over the web. These catalogues are available with their libraries local server made it available over the web. If the catalogue of the libraries made it available through cloud, it will be more benefit to the users to find out the availability of materials.

Drawbacks of Cloud Computing :

1. Privacy and security of Data
2. Network connectivity and bandwidth
3. Providers are supreme power
4. Flexibility is limited
5. Cost
6. Knowledge and integration

Cloud Com,puting: Application in Libraries :

There are some organizations and business houses who functions as cloud computing vendors for library software's, search engines and digital libraries etc and offer the use of cloud computing platform for these purposes. Some of these are:

1. OCLC's Web scale :

OCLC is perfectly using cloud computing for libraries and set an example for others. Years together OCLC has been functioning as a cloud computing vendor because they provide cataloguing tools over the internet and allow member institutions to draw on their centralized data store13. OCLC has implemented the plan of library management systems i.e. world share management services (WMS). This service has services for many areas like acquisitions, analytics, resource sharing, cataloguing and license management components. It offers the entire library collection management in a cloud-based application. The main purposes of web scale are that libraries can share their resources, data, and innovation with ease. To serve these purposes, it has some certain features that work together to provide its users better library services. In other words, this will generate cost benefits for libraries and efficiencies not possible when utilizing disparate, specialized systems13. The service promises to include privacy, security, scalability and technical support.

2. Ex-Libris Cloud :

Ex-Libris is a leading library software vendor from USA. It provides cloud based solutions to automate the library operations. It developed most products for locally implemented solutions and adapted them to a hosted environment later. Its website claims that over 5300 in more than 80 countries are deploying Ex-Libris solutions for automation of their library resources. It allows libraries to enhance their efficiency and lower the cost of operations and extend their value through launching new services. It has changed the way to provide traditional management of library resources through its library based system, Alma. It besides ensuring considerable savings in total cost, involved in the implementation of software and the use of a centralized cloud service enables libraries to easily influence the collaborative efforts of the library community to provide effective services for their users 14. To provide worldwide cloud-based services; it has opened data centers at various locations. The company promises to adhere to data security, updates, and standards in implementing cloud services to safeguard the interests of customers.

3. Duraspace's DuraCloud :

Duraspace provides open source repository solutions by undertaking turnkey projects for organizations and libraries to enable them to share scholarly literature using DSpace and Fedora Commons. It is particularly devoted to improve and sustain Fedora and DSpace. These open source repository solutions are very famous for IR solutions. Its new service Dura Cloud provides digital preservation support services in the cloud, which is cost effective and simple for libraries. Dura Cloud helps libraries to move content to the cloud and store it with different service providers to eliminate the risk of data loss.

The cloud solutions offered include online backup, preservation and archives, media access, online sharing, and cloud broker.

4. OSS Labs:

OSS labs from India is using Amazon's elastic cloud computing platform owing to the various capabilities of Amazon such as high durability of data, ISO standards based strong information security and flexibility. It is expected that the OSS labs will be able to provide robust open based solutions to demanding customers17. OSS Labs offer hosting and maintenance services for Koha ILS and DSpace IR. OSS Labs use Amazon's cloud services. Library operations have become very cost effective and the library staff needs not to worry about maintenance of software etc.

General use of cloud computing in libraries :

1. Automation of library activities using LMS
2. 24*7 access of library.
3. Creating Digital library to link the online databases using

ISBN : 978-93-81249-30-7

IP, institutional repositories, free¬ resources, e-learning and training materials, question papers, and archives uploading.

4. Library portal for new book request, queries, feedback, newsletter
5. Creating group e-mails to the users (via web mail)
6. Web OPAC, online renewal, reservations etc…
7. Federated searching
8. Large number of documents can be stored in a public server using Cloud
9. Online attendance monitoring, student's records maintenance, fine collections etc…
10. PO / PR requesting using internal software
11. Creating and uploading newsletter, new arrivals and forthcoming events for user community(CAS)
12. Creating alerts to the user community based on SDI¬

Enhancement of Library Services by the Use of Cloud Computing :

1. **E-books Lending Service**: Cloud platform is now becoming popular to lend the E-Books.
2. **Union /Shared Catalogue/OPAC**: Network libraries can use same platform and give access to their collection on one platform. Through cloud computing creation of union catalogue becomes very easy.
3. **Document Download Service**: One can download documents easily if permit access in the network.
4. **Digital preservation/Scanning Service**: Digitization and scanning work can be done centralized and so one can avoid duplication of such time consuming work. Libraries can preserve the collection is digital form in the form of archives.
5. **Article Delivery Service**: Cloud computing can be used for article delivery service to the patrons by the libraries. Publishers are already using this technology for providing access to libraries.
6. **Current Awareness Service**: To provide current awareness service to all patrons has become easy with cloud computing.
7. **Document Sharing**: Document sharing has become easy with cloud computing.
8. **Bulletin board service**: We can provide new services on bulletin board with this technology.
9. **Information Common**: Information common like bibliographical data, content pages, cover pages, question papers, syllabus, and other reading material we can share on one platform. It helps in improving economy of library and avoids duplication of library purchase.
10. **Collection Development**: Cloud computing is used for collection development. Duplications can be easily avoided and alternate resources can be located and made accessible to patrons.
11. **File sharing**: To share various files in electronic form become easy with the cloud computing.
12. **Information Discovery**: Cloud provides a platform to store all information that one can access anytime from anywhere; so information discovery and searching become easy and it is very useful for researchers.
13. **E-Learning**: In the E-Learning environment too, cloud computing is boon. Study material can be kept on the cloud for reference purpose and online examinations also can be conducted. Discussions, revisions can be done at a time from different places.
14. **Information Literacy/Orientation**: Libraries can conduct information literacy and orientation courses on the cloud. They can keep the tutorials, videos, presentations and files on the cloud for user's orientation.

Social Interactions with the users : Can be possible because of cloud computing.

Role of Cloud Librarian :

1. To track member information and transactions
2. To provide Access Pin to students and define validity. (Pin can be auto generated; Validity can be set in the software)
3. To communicate with the member libraries contributing their resources to cloud for resource sharing
4. To communicate with the Ebooks, Journals publishers& distributors, consortia, database providers
5. To discuss with faculty members and subject experts, librarians for preparing different packages for different faculties and classes.
6. To update technological skills
7. To give technological support to member libraries
8. To conduct training and awareness programs for readers
9. To provide interlibrary loan facility
10. To track usage record of cloud resources
11. To develop digital collection
12. To keep record of physical resources too for providing referral service
13. To deal with Cloud resource and players and select the best bargain.
14. To maintain own virtual profile by creating his or her blog or social network profile to interact with the user. The same platform can be used for providing
15. Reference services and educating the users on cloud resources or how to use the Cloud infrastructure.

16. To use his or her strategic planning and decision making ability at different stages of developing a Cloud library.

Conclusion :

Concluding it can be said that cloud computing technology provides libraries an opportunity to improve their services and relevance in today's information society. It can bring several benefits for libraries and give them a different future. It helps libraries to deliver its resources, services and expertise at the point of need, within user workflows and in a manner that users want and understand. It should free libraries from managing technology so they can focus on collection building, improved services and innovation. The cloud computing model will encourage libraries and their users to participate in a network and community of libraries by enabling them to reuse information and socialize around information. It can also create a powerful, unified presence for libraries on the Web and give users a local, group and global reach.

References :

[1] *Swapna G & Biradar B. S., Application of Cloud Computing Technology in Libraries, International Journal of Library and Information Studies Vol.7(1) Jan-Mar, 2017 P. 52-61*

[2] *Rekhraj Sahu, Cloud Computing: An Innovative Tool For Library Services, National Conference on Library Information Science and Information Technology for Education(2016)*

[3] *Radha L., Application of cloud computing at library and information centers, the international journal's Research journal of science and IT management, Vol. 2, (2013)*

[4] *Babu, Ganesh : http://www.axleration.com/facebook-vs-myspace/, April 12, 2011.*

[5] *Cloud Computing and Libraries by S. Y. Bansode and S. M. Pujar, DESIDOC Journal of Library & Information Technology, Vol. 32, No. 6, November 2012, P. 506-512*

[6] *Mahipal Dutt, Cloud Computing And Its Application In Libraries, International Journal of Librarianship and Administration, Volume 6, Number 1 (2015), pp. 19-31*

[7] *Hayes, B. Cloud computing. Communications of ACM, 2008, 51(7),P. 9-11.*

[8] *Wikipedia. Cloud computing. http://en.wikipedia.org/wiki/Cloud_computing*

Use of Open Source Software's in Library Automation

Mrs. Pratibha S. Kamble
(MA MLib & Isc NET) Librarian
CSIBER Trust's College of Non-Conventional
Vocational Courses for Women, Kolhapur

***Abstract** : In this era of digital transition from information age to knowledge society, the libraries are facing much greater challenges. The whole library operations have now changed to a single window knowledge bank. This paper discusses the definition and features of open source library management software, criteria of selection of best open source library management software, their advantages and limitations over Commercial Software's. Open source library management software is a solution to reducing that cost. Some small libraries in school or colleges have very narrow budget so they cannot afford Commercial/Paid Software's. In this case we can use Open Source Software's. Open Source Software's are efficient, accurate and easy to use as same as Commercial/Paid Software's. So I am trying to focus of Open Source/Free Software's in my Paper presentation.*

The paper describes in brief about the feature of some of the open source library management software like Greenstone Digital Library, DSpace, KOHA, E-Prints, NewGenlib, PhpMyLibrary, OpenBiblio, Avanti, etc., which are useful for developing digital library and institutional repositories.

***Keywords** : Greenstone, DSpace, KOHA, E-Prints, Avanti, New Genlib, ABCD*

INTRODUCTION :

Open Source Software means, software which is freely available to anybody and the source code (use to create a program) is free to view, use, modify and redistribute without any discrimination. It's a collaborative effort where programmers can make changes, improve the source code and share between peers, allow further modifications and incorporate changes within the community.

To support the development of GNU (General Public License), Richard M. Stallman founded the Free Software