The Impact of Information Communication Technology on Library Automation and Higher Education

Ipsita Panda[1] Jhasketan Hota[2] and Karan Singh[3]

[1]Ph D Research Scholar P.G. Dept. of Lib .and Information science Sambalpur University, Odisha, India

[2] Librarian, Vikash Junior College, Sambalpur, Odisha,.

[3]*Corresponding Author (Ph D. Research Scholar) of Sambalpur University, Odisha, India,

"As Technology advances, it reverses the characteristics of every situation again and again .The age of Automation is going to be the age of do it yourself "
By" Marshall Mcluhan"

Abstract: *The newer concept of library automation and Information Communication Technology as a tool of modern age is much newer in this part of developing world. The word Automation itself denotes the elimination of all manual labor through the use of automatic controls that ensure accuracy and quality. In this paper it clearly shows how it is useful in this library sphere and also influence in the higher education. On the contrary, developing countries are striving to take up the challenge to adapt these technologies into their higher education sector.*

Keywords : ICT, Information, Automation, Higher Education, Library

Introduction

The Information Communication Technology (ICT) plays a vital role in our lives, not only in educational sphere but also in socio, economic life. In this developed world economy many of the higher education institutions have automated most of their teaching learning process. The ICT could be used in education to improve administration efficiency and to enhance teaching and learning also use in the research productivity of the both faculty and students on the side by side it also helps in emerging the knowledge economy. In order to achieve the goal of transforming the modern educational system the institutions must achieve a minimum level of e-readiness.

The Information Communication Technology (ICT) has made considerable advances possible to the diversity of existing business, library and information science more specifically has been profiting from such advances which have promoted and increased efficiency. Knowledge or modern society is based on information so information is considered as a fourth resource after money, material and workforce.

The modern era is witnessing the information knowledge revolution. The information needs of the society are growing continuously at tremendous speed for sharing of information in a continuous flow to touch all aspects of human life's and their needs.

Meaning of Automation

Automation is the technology of automatic working in which the handling method, the process and design of professional material are integrated. According to Webster's International dictionary of English languages, Automation is the technique of making an apparatus a process or a system operates automation".

According to Encyclopedia of library and information science –"Automation is the technology concerned with the design and development of process and system that minimize the necessary of human intervention in operation."

Literature Review

There are certain authors who gave their views on information communication technology also on library automation are follows-

Manjunath in (2008)-views on to make a beginning CDS/ISIS was the best suited as it involved minimum investment on both h/w and s/w. Also he observed that with wide range of technology products in circulation, libraries must keep on the development as to choose appropriate technology depending on the needs. It is necessary for librarians to interact with computer professionals as the library automaton needs proper co-ordination among these professionals.

In 1985- UESCO came up with micro CDS/ISIS which was advanced non-commercial information storage and retrieval software. It must be stressed that CDS/ISIS software has undergone major development sincei980. There are different versions came in 1985 that is -1.0 march 1989-2.0 June 1993-3.0, Nov 1997-version 1.0 0f CDS/ISIS for windows, in Jan -1999 version 1.311, June 2000, Java ISIS 3.0, In jan-2001 official version of 1.4 CDS/ISIS for windows came which is helpful on library atmosphere on ICT environment.

Gapen in (2007)-defined virtual libraries as the concept of remote access to the contents and services of libraries and other information resource.

Ani in (2005)-identified three influencing factors which included staffing, human capacity building in ICT level of infrastructure in implementing library automation and virtual library project, a lot of challenges are faced by libraries.

Libraries in the ICT environment

Information communication technology (ICT) introduced in library as library automation tool which is linked with human socio-cultural development and introduction of computers in all around developmental activities. It brings a revolutionary change in libraries from collection management to delivery of service towards library users.

Many developing countries in Africa, South Asia and even some part of Europe were use of computer in the libraries revolutionized in the environment of developing countries libraries and also impacted their services. The ICT usage and library automation activities started in India during 1980s. In i980s as the joining of Universities in UGC and formation of INFLIBNET as the national agency for co-coordinating the library automation activities of Universities the flow of ICT brings a blow of automation in the library environment slowly and steadily. In due course of time the development of automation the library professionals and schools come forward to adopt computer technology for facilitation of their user's and to make their services accurate and fast. (Shafi-ullah.F, (2009).

Many of the library system vendors are moving to cloud based library services platforms through their routers to that end may differ. Library service platforms can no longer be considered next generation systems but rather be considered as the products that implementation in many of libraries. Librarians are taking much more positive approach to implementing new library systems. An analysis list of systems on higher education institutions have already decided to move to a library service platform. It is still early days but it is already clear the library service platforms will now move at an accelerated place to integrate more resource management silos in to a shared cloud based Eco system. Now libraries are looking for more coherent and efficient workflows for managing electronic and digital resources and this is hard to achieve with a legacy system. (Chad.K. 2015).

Advantages of using ICT in the library

-Information Communication Technology makes library work easier, faster, cheaper and more effective.

-helps in management of information in a computerized systems.

-Remote access is enable through networked systems.

-Computerization saves space and reduces paper work. (Sahoo.D. 2011).

Information and library Network (INFLIBNET) Its Role on Higher Education

INFLIBNET emerged as a front runner provide facilities automation and Networking of academic libraries for resource sharing its aim is to target to network all the academic libraries of higher education in India, also creation of union databases of resources of academic libraries promotion of information access and transfer supporting scholarship, learning and academic pursuits. This centre is a nodal agency for networking of higher education and research and development institution library and information centers to promote scholarly communication in India. It also imparting higher education, conducting research and interacting with individuals and institutions at different levels within and outside India, and universities are the major contributors to the generation and dissemination of knowledge. By the way INFLIBNET plays a great role in higher education in India in the modern day scenario. (Karn S.kumar, 2011).

Impact of Automation on library

More broadly the history of library Automation is an important area of library and information science research because of its impact on how librarians work to-day environment are the vital aspect that came out as a transformation of a man to machine that is the automation. Library automation transformed a completely manual library in to a machine-assisted one. However it transformed the library into a more efficient, cost-effective and potentially intellectually engaging operation. Although library automation evolved as the librarians to national and later international , which allowed librarians a more effective means to distribute limited labor and resources to increase access to collections. The library automation has largely defined the shape, the process and the identity of librarianship today.

Essentiality of Library Automation

-Library Automation relieves the library staff of their repetitive work.

-Staff training is essential aspect

-To share the resources with other libraries.

-It takes less time to process data and retrieve information for that saving the time of the users and staff.

-It also creates a good collection in the library.

-Adequate funds are also an important element of an library automation.

-It tries to overcome geographical and other barriers to communication.

- Provide better bibliographic control at local, regional, national and international level.

-Facilitate interdisciplinary nature of research and information.

-Economic implication of latest information technology.

Features of Library Automaton

1-Networking

2-It's a time shaving system

3-Trained staff requited

4-Accuracy in work

5-Availability of paper information

6-Standardization in library work

7-It is helpful to primary library service

There are certain advantages and disadvantages of library automation these are as follows-

Reduction in production of time

Less employee costs

Advantages of Lib Automation

Less human error

Increase in accuracy and repeatability

Less Versatility

Un predictable costs

Dis Advntages of Library Automation

Large initial investment

Increase in un employment

Lack of Trained Personale

Automation and Digitization of Library

The significant impact of technology is a great impact on libraries around the world. Automation indicates the usage of computers and related product and services in the performance of various library operations. Library automation is the most commonly used terms to describe the computerization of library activities with the help of computer. (Uddin.H. 2009).

However the digital libraries are differ from traditional libraries. Digital libraries could be considered as an organization that offers plenty of digital resources also the specialized staff to manage and pre-serve the integrity of digital data. Digital library also includes text, images, audio and video along with the means of accessing the digital data.

Indian libraries efforts to-wards Automation

Many Scientific and technical libraries working under such research and development institutions as –CSIR, ICMR, ICAR and DRDO have taken the lead in library automation. Among all many public sector libraries that –BHEL research and development and SAIL they also organized several training programmed and software development projects which create awareness among many libraries for the development of new technologies. But there seen some lacuna among the academic libraries to slow progress of automation that are-

-Academic libraries in India function in a relatively less automation environment.

-These are the smaller unit within large setups.

-Lack of training among the library staffs.

-Academic libraries are not under as much pressure to improve their services as are scientific and technical libraries. (Joshi.P., 2011).

As parker define-Automation as Library housekeeping as –opposed to theoretical or empirical research with in automation or information retrieval. (Parker.R.H, 2014).

Some Recommendations

The implication of automation/e-lib Project should not be restricted to any category of staff. So that they should be expose to training the automation software and internet operation in the library.

-The library users including staff and students should be trained and retrained in the act of utilizing automation involving internet facilities.

-The equipment should be consistently sustained by adequately providing for internet subscription and maintenance of the facilities of the library.

-Adequate funds should be provided from the concerned authorities to improve ICT services. (Gbadamosi.B.O,2011).

Conclusion

Many institutions are in the process of library automations are in the process of library automation and digitization but facing a lot many problems such as limited pedagogic training or experience for librarians, frequently changing technologies diversity in electronic resources service providers, adequate back up for electricity. The library automation is gradually taking shape. The library services to the users are gradually changing to internet driven and digital collections are given priority. Intellectually automation is easy and rather comfortable, even though it demands considerable management skills and technological judgment to implement. The UGC-INFONET digital library consortium provides as a boon to the library and information centers and higher education in India in modern age. No doubt ICT skills are very essential for the successful application of ICT in libraries. With the passing year we find that ICT has almost affected all sector of our life. So, it is a time to awaking and accept the presence of it sector and automated library concept.

Reference:

Ani, O.E. (2006).Evolution of virtual Library in Nigeria: Myth or reality? Journal of Information Science, 31 (1), p.66-70.

Chad. (2015). Library management system to library services platform, Resource management for libraries: New perspective, p.11.

Gapen, D.K. (2007).The Virtual library: knowledge society and the librarian, p.5

Gbadamosi.,B.O.(2

011),Accessing Library Automation and virtual library Development in four academiclibraries in Oyo state, Nigeria,U.S-china education Review, ISSN-1548-6613, Vol.8, No.5, P.711-717.

Karn. S.K.(2011),UGC-INFONET Digital Library Consortium: A Boon for higher education in India,Inflibnet,p.2,Dec-5.

Manjunath, G.K. (2008).Library automation: why and how? Retrieved April 18.

Parker. R.H.,(2014),Academic libraries and Automation: A historical reflection on Ralph halstead parker by C.Sean Burns Libraries and the Academy,V0l.14.14,No1,p.p87-102.

Sahoo.D.R.,(2011),Application of information and communication Technology in libraries: An overview,p.36.

Uddin, H., (2009) .Library automation: A study of the AIC, INSDOC and National libraries of Bangladesh, p.42,

Ullah.F.S.,(2009).Is ICT Infrastructure capable to accommodate standardized library management system?: Case studies of library automation from public sector universities in Islamabad (Pakistan),ICAL, technology, policy and innovation

www.inflibnet.ac.in

http://www.infosciencetoday.org

http://www.igidr.ac.in

http://www.haworthpress.com

http://heibtch.com

http://www.isrj.org