



SGPC's
Guru Nanak Institute of Management Studies

gnims
Business
School

International

 **e- journal** of Library Science

Volume No. 6
Issue No. 2
July - December 2018

ISSN No. 2319992X
Impact Factor IJIF (2017) 4.101
Impact Factor PIF (2018) 4.005

Editor-in-Chief

Dr. Dattajirao Y. Patil
Director (GNIMS)

Prof. Dr. Kuljeet G. Kahlon
Library Manager

EDITORIAL ADVISORY COMMITTEE

Dr. Ajit Singh
Director General - GNIMS
Matunga, Mumbai - 400 019.

Marc Goovaerts
Head Librarian
Hasselt (Bibliotheek Universiteit)
Belgium

Dr. A. Ganesan
Director Library
Prist University
Vallam, Tamil Nadu-613403.

Dr. Debra Wallace
Executive Director
Knowledge & Library Services
Baker Library
Harvard Business School
Boston, MA-02163.

Pieter Lernout
Librarian
Hasselt (Bibliotheek Universiteit)
Belgium

Dr. Diljit Singh
Associate Professor
Deputy Dean (Postgraduate)
University of Malaya
Kuala Lumpur,
Malaysia - 50603.

Dr. Radhakrishnan Pillai
(Eminent Author)

Jagmohan Bhave
(Eminent Author)

Dr. Akhtar Parvez
University Librarian
Maulana Azad National Urdu University
Gachibowli, Hyderabad - 500 032

Parag Warty
Sr. Manager
International Operations
EZEE Concepts
USA INC

Dr. H. Anil Kumar
Librarian and Head NICMAN
Indian Institute of Management
Vastrapur, Ahmedabad 380 015.

Dr. Sanadi Dinesh Annappa
Librarian, St. Joseph College of Arts & Commerce,
Satpala, Post - Agashi, Virar (W)
Tal. Palghar, Dist. Palghar - 401 301
Maharashtra State. INDIA.

Dr. Chandrashekhar D. Wani
Librarian,
KCE's Institute of Management And Research
IMR Campus, Behind DIC, NH 6,
Ganesh Colony, Jalgaon, Maharashtra - 425 001.

Address for communication

Guru Nanak Institute of Management Studies
Library Research Team, King's Circle,
Matunga-Mumbai — 400019.
Tel. 022-24043927/28, Telefax :022-24043933
Email: editor.elibrary@gnims.com
Website : www.gnims.edu.in
www.lib.gnims.com

Review Board :

- 1) **Dr. Sameer Phanse**
- 2) **Dr. Y. V. Kamath**
- 3) **Neeta Malik**
- 4) **Dr. Arvind Mittal**

Supported by :

Dr. Dinesh A. Sanadi
Rajendra S. Aher



International e-Journal of Library Science

Volume No. 6 • Issue No. 2 • July - December 2018 • ISSN No. 2319992X

Impact Factor IJIF (2017) 4.101 & Impact Factor PIF (2018) 4.005



Shiromani Gurudwara Prabandhak Committee's

Guru Nanak Institute of Management Studies

Kings Circle, Matunga East, Matunga, Mumbai-400019.

Email: editor.elibrary@gnims.com

Website: www.gnims.edu.in / www.lib.gnims.com

Contents

- 1. Innovation in Learning Environment: A New Perspective of Learning in Digital Era 04**
Dr. Vinita Jain
- 2. The Use of E-Resources in Government Law College Library in Maharashtra : A Study 12**
Dr. Subhash Dhule
- 3. Library User Engagement Strategies - A Study of GNIMS Business School, Mumbai 16**
Dr. Kuljeet G. Kahlon, Ms. Neeta D. Malik
- 4. Need for Innovation in College Library and Information Services 20**
Dr. Madhukar N. Shewale, Mr. Ganesh Ramdas Sanap
- 5. Scope of Artificial Intelligence (AI) in Library Systems 24**
Ms. Siddhi U. Jagdale
- 6. Internet of Things : An Overview 28**
Ms. Bhagyashree Vinit Tamhane

Innovation in Learning Environment: A New Perspective of Learning in Digital Era

Dr. Vinita Jain

Librarian, Maharshi Dayanand College of Arts, Sc. & Commerce, Mumbai

vdjain08@gmail.com

ABSTRACT :

Innovative learning introduces new possibilities to enhance the teaching and learning process and add value by providing new, more efficient opportunities for obtaining better results. The aim of this paper is to identify various innovative methods of learning apart from traditional learning to sustain in change environment. Paper highlights innovative tools that helps to update the knowledge in specific area where conventional knowledge is not sufficient or outdated. Self-paced learning is a good option to improve schedule issues and makes it possible to learn at your own pace. An innovation provides an alternative solution to a problem or creates a novel solution to meet needs for an individual group or organization. Professional development would be necessary to enable them to explore innovations effectively. Apart from Academic learning lot of other information / services we should learn which is required in today's scenarios like, mobile apps and their application, digi locker, e gazette, google maps, online payments, online travel booking etc.

Key words:

Online Learning; Innovations – learning; Self-learning; Innovative Services-Library; Learning-Digital Era

Introduction :

Innovation means introduction of something new or change towards transformation. Innovation can be derived from new thoughts or ideas, practices, research, methodology or from any resources. Innovations for any organization can be done by applying ideas for generating new products, using new methods for better productions and management, and also bringing change in the value s among the staffs. In the digital information age, we all need to learn how to use efficiently and effectively the huge diversity of information.

Learning occurs best when new knowledge is built upon prior knowledge. Innovations in learning solve problems and add value. They provide fresh solutions or remove traditional barriers to existing, articulated challenges in teaching and learning (and add value by building capacity for implementation). (David & Glenn, 2000).

It can identify a previously undetected need or barrier, then enhance the teaching and learning process with a novel solution (and add value by understanding the limiting factor in a new way and responding accordingly); Innovative learning introduce new possibilities to enhance the teaching and learning process and add value by providing new, more efficient opportunities for obtaining better results; and also allow the education system to adjust to new avenues through which students learn (and add value by capitalizing on and directing student use of technology) (Mahadeva & Karigowda, 2017).

Learning :

Learning is a positive change in the learner's cognitive, psychomotor, social, and/or emotional knowledge and skill as exhibited in the learner's behavior.

Innovation in Learning :

An innovation in learning occurs in a specific teaching and learning context, improving upon the implementation of the standard practice or introducing a new practice, thus achieving greater learning outcomes. Innovative practices may be ordered into processes and procedures, bundled into programs, and packaged into products.

Seeking innovation in learning we look into the technology in the age of information.

In education, an innovation is a deviation from the standard practice give equal (or lesser) amounts of time and resources. Innovation does not necessary involve a mechanical, electronic or digital device. Steve Jobs invented iPad, & educators made use of iPad in blended learning. If proved more effective than the standard practice of teacher –directed, face to face instruction blended learning (with an iPad) would be an innovation in learning. So, any device is really just an invention, and only the successful use of it. Its application for a specific purpose in a specific context, makes it an innovation. The innovation may be methodological, technological or both.

We argue that innovation is not necessarily technology but rather a better way of doing something. 'Innovation' in education seem to occur based on the educational demand placed on the educational system (Miles, 1964)

In education, innovation has been poorly or inconsistently defined, undermining our ability to harness and scale "it" for better, more efficient learning results. Without a standard for innovation, everything or nothing qualifies.

Learning starts with literacy :

The assumption seems to be that innovation is always a good thing and that it normally involves some new technologies can prove to be more trouble than they are worth.

Innovation is often seen in terms of technological change, of some new gadget or software that will transform learning and teaching.

Innovation in teaching and learning was most likely to take place when colleagues and people in authority showed an interest in disseminating the outcomes of innovation as reported by (Hannan, 2005).

Google Drive: Keep photos, stories, designs, drawings, recordings, videos, and more. Your first 15 GB of storage are free with a Google Account. Your files in Drive can be reached from any smartphone, tablet, or computer. So, wherever you go, your files follow. You can quickly invite others to view, download, and collaborate on all the files you want—no email attachment needed.

Self-paced learning: With self-paced learning, you can make your own decisions instead of answering questions within a certain amount of time, participants are able to answer questions within the time that is needed for them. Each participant can decide what time is needed to answer the questions. Now you know the definition of self-paced learning, let's take a look at the benefits of self-paced training. With self-paced learning students have the amount of time that is needed for them to answer the questions? Because participants have no time pressure, the memory performance will improve.

Quizzes, exams, assessments and courses can be self-paced with LMS. So, if you don't want to schedule a classical test,

self-paced learning is a perfect option. You can set a deadline for your participants in what amount of time they should finish their task. There is also an option to do your task multiple times. Self-paced learning is a good option to improve schedule issues and makes it possible to learn at your own pace. To sum things up: a solution for many problems!

Coursera: Coursera provides universal access to the world's best education, partnering with top universities and organizations to offer courses online.

Each course is like an interactive textbook, featuring pre-recorded videos, quizzes, and projects.

Connect with thousands of other learners and debate ideas, discuss course material, and get help mastering concepts.

Earn official recognition for your work, and share your success with friends, colleagues, and employers.

e-PG Pathshala is an initiative of the MHRD under its National Mission on Education through ICT (NME-ICT) being executed by the UGC. The content and its quality being the key component of education system, high quality, curriculum-based, interactive e-content in 70 subjects across all disciplines of social sciences, arts, fine arts and humanities, natural & mathematical sciences, linguistics and languages have been developed by the subject experts working in Indian universities and other R & D institutes across the country.

Every subject had a team of principal investigator, paper coordinators, content writers, content reviewers, Language editors and multimedia team.

Literature Review :

Innovation :

Innovation is the application of an idea or invention, adapted or refined for specific uses or in its particular contexts (Gertner, 2012; Manzi, 2012).

Innovation frequently requires an investment in human capital and tools.

Whatever the degree of change an innovation occasions, success depends upon the clear communication of purpose, the personal engagement of everyone involved, the attention to short-term and long-term progress, and the consolidation and institutionalization of the improvements (Kotter, 2012).

As defined by Rogers, 1983 an innovation is an idea, practice or object that is perceived as new by an individual or another unit of adoption (p.11)

An innovation provides an alternative solution to a problem or creates a novel solution to meet needs for an individual group or organization.

The 'newness' of an innovation does not just involve new knowledge, but also new ways to approach the problem (Rogers, 1983,2003)

Context and Problem Statement :

Online technology can change the way teaching learning process is organized in colleges and universities as it makes it possible to deliver customized personalized learning to individuals. Rich class people were educated through personal tutors. Personal tutors are too expensive today. Online technology can not only make personalized learning possible but also personalized evaluation.

Higher education is seen by individuals as a passport for better jobs and upward mobility.

The key to success in education lies in the ability to produce and disseminate knowledge. University may not be able to provide the diversity needed to satisfy particular educational needs of individuals. However, they can do it with the use of technology by offering a wide variety of sources not dependent on classroom teaching.

Professional development would be necessary to enable them to explore innovations effectively.

What opportunities and challenges face in non-traditional learning is a matter of discussion.

Types of Innovative Learning :

Innovative learning and the MOOC: Massive opens online courses are free course available for online to enroll. MOOCs provide an affordable and flexible way to learn new skills with no limit on attendance, advance one's career and deliver quality experiences. It offers a large number of students the opportunity to study high quality courses online with prestigious universities, often at no cost. MOOCs do not always lead to formal qualifications. There are no entry requirements. Video based, they offer interaction either through peer review and group collaboration or automate feedback through objective, online assessments. "Anytime, anyplace, any pace" are the watch words of online learning.

Digital Archives / Institutional Repository : IR plays an important role in the presentation and dissemination of the intellectual contents of institutions. Through IR scholars can disseminate or make available their intellectual contents to the widest audience with more easiest and economic way. IRs can manage the scholarly contents of institution in a cost-effective manner. The collection of repositories depends upon the scholarly output of institutions and collection development policies of the repositories. IR can be a rich source of online learning environment in today's time. (Mohamed, Jameela, & K, 2013)

Mobile learning : Using portable computing devices such as iPads, laptops, smart phones or tablet computers provide continuous access to the learning process anywhere, anytime.

Mobile Apps: Using your mobile browser, you can access a web site that acts or performs a specific function, acts as a app or a tool. Web Apps allow users to search for the latest data, track their progress, share or edit data and more.

The advantage of a web app, is that its controlled on the server so the same data is access via mobile devices and desktops. You can insure the user always has access to the latest data because they have to access via the server.

Color Note : Notepad is one of the many applications that exist on Android for virtual note taking. With it, we can fill our smartphone with colorful 'post-its' to make sure we don't forget anything important. The application, despite its simple function and small size i.e. less than 1 MB comes with a considerable amount of features that help it to stand out within its category.

It allows us to make notes in different colors so that we can differentiate between notes with just a glance. Similarly, it allows us to make notes in different colors so that we can differentiate between notes with just a glance. We can protect our notes by giving password to keep private.

Another interesting option is that we can synchronize our notes between devices, i.e. smartphone and tablet as well with the help of the app's 'widget'.

E-books: e-Books offer a great way to deliver content to a mobile device. eBooks can be created for the iOS platform

using iBooks Author a free download for your Mac. Sigil is a free open source mac and windows app that allows you to create eBooks, with some HTML knowledge, for any iOS and Android.

Whink App : The Whink App works on your iPhone or your iPad and is great for notes, sketching, and brainstorming. It has 3 modes from drawing, typing and recording elements as well bring in media from your camera roll.

Booklet App : This app has started by an IITian Mr. Amrut Deshmukh to cultivate the habit of reading amongst the youth of India. He makes short summaries of bestselling books & record them in his voice, so that you can read/listen to fat books in just 20 mins.

Magzter: Magzter is the world's largest digital magazine newsstand with over 5000+ magazines from around the world including 2000+ Indian magazines in English and regional language. It is not free, you will have to pay some nominal charges for accessing these digital magazines. Magzter can be accessed anytime, anywhere and across all devices (PC, Mac, iPad, iPhone, Android Tablet, Android phones). We can download the magazine to read offline.

Tablet computing: The portability of the tablets facilitates personalized learning environment, with all resources and tools on a single device. This portable PC with a mobile operating system and LCD touch screen display processing circuitry and a rechargeable battery is a gift of technology to learners.

3 D Learning : This is an exciting developing area of the e learning industry. This allows learning through practice. Students can visualize equipment, procedures and tasks in a unique practical way. This can make learning a fun.

NPTEL is an initiative of the seven Indian Institute of Technology (IIT Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras & Roorkee) and Indian Institute of science Bangalore (IISC) for creating video and web course contents in engineering and science. <https://onlinecourses.nptel.ac.in/> as on April 2018 more than 430 million NPTEL websites views and 300 Million+ you tube views are there.

SWAYAM platform is indigenously developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft and would be ultimately capable of hosting 2000 courses and 80000 hours of learning: covering school, under-graduate, post-graduate, engineering, law and other professional courses.

SWAYAM (Study Webs of Active-Learning for Young Aspiring minds) is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. <https://swayam.gov.in/>

The courses hosted on SWAYAM are in 4 quadrants : (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

RSS - RSS (Rich Site Summary; originally RDF Site Summary; often called Really Simple Syndication) is a type of web feed which allows users to access updates to online content in a standardized, computer-readable format. These feeds can, for example, allow a user to keep track of many different websites in a single news aggregator. The news aggregator will

automatically check the RSS feed for new content, allowing the content to be automatically passed from website to website or from website to user.

Spoken Tutorials :

The Spoken Tutorial project is the initiative of the “Talk to a Teacher” project of the National Mission on Education through Information and Communication Technology, launched by MHRD, Govt of India.

The spoken Tutorial Project aims to make spoken tutorials on FOSS available in several Indian languages, for the learner to be able to learn in the language he/she is comfortable in. Their goal is to enable the use of spoken tutorials to teach in any Indian language, and to be taught to learners of all levels of expertise- Beginner, Intermediate or Advanced.

Virtual reality : Virtual lab enable graphical representation of real world. Virtual and remote laboratories are boons to learners.

E newspaper : Almost all the papers are available online now. We just have to select the name and language and city we can read online every day.

Learning of Digital Information Services:

Apart from Academic learning lot of other information / services we should learn which is required in today’s scenarios. Some of the services we should know are listed below-

Travel guides / booking : TravelGuides.com is your comprehensive, one-stop source for the best travel guides, vacation brochures, maps and planning kits. Whether you want them in your mailbox or your email inbox, these travel guides and travel brochures help you plan the perfect vacation. The desire to travel can be spontaneous. But great trips are carefully planned.

Government gazette: Gazette of India notifications are published by department of publication and are printed by the government of India printing press regularly. This is an authorized legal document of government of India. All parts, sections and sub section of Gazette of India are uploaded in the e gazette website by the concerned govt of India printing presses which can be accessed free of cost by the public being available in public domain. <http://egazette.nic.in/>

Electronic payment through Paytm, Mobikwik, UPI, Phonepay etc.

Digi Lockers : Digi Locker is a platform for issuing and verifying documents and certificates digitally, thus eliminating the use of physical documents. Public who sign up for a Digi Locker account get a dedicated cloud storage space that is linked to their Aadhaar number. Organizations that are registered with the digital locker can push electronic copies of documents directly into individual lockers.

QR Code : A barcode is a machine-readable optical label that contains information about the item to which it is attached. A QR code uses four standardized encoding modes (numeric, alphanumeric, byte/binary, and kanji) to store data efficiently; extensions may also be used. QR codes storing addresses and URLs may appear in magazines, on signs, on buses, on business cards, or on almost any object about which users might want information. Users with a camera phone equipped with the correct reader application can scan the image of the QR code to display text, contact information, connect to a wireless network, or open a web page in the telephone’s browser.

Role of Librarians in Change Environment :

Librarians play a very important role in the academic sector. Here are some of the recommendations where he/she can contribute to the society towards digital India.

E-information literacy to the users is must specifically how to use online information, check authenticity of information before passing on to others.

Teach the local area people to use various mobile apps which helps them to ease their life like UPI, m-indicator, Booklet, m parivahan, digilocker, paytm, mobile recharge, utility bill payment, search the information on google, google map, e newspaper, various quizzes and mock exam portals etc.

Librarian can keep workshop on latest learning technology to make faculty understand its need.

Findings : Innovations in learning is need of the hour to sustain in change environment.

The online resources are several issues like a high-speed communication technology when one considers all the evidence of advancing technology, education reforms, social change, information literate customers and globalization of everything and their impact on hybrid learning.

Efforts have been made to blend online learning and conventional learning with a degree of success. This has improved access but not as many people as could have been expected.

The system of online learning is still not as efficient as the traditional learning, nor perhaps, is it as good. E learning is a boon to those young learners who are not in a position to undergo face to face learning.

Theoretical Implications :

Library professionals, Librarian or faculty members can use online programs like e-pg pathshala or Swayam by ministry of human resource development where all NCERT books have been digitized and made available on its web site and also on the mobile devices. Technology has changed the expectations of library patrons, people today expect to find and access information from wherever they are.

Conclusion :

The global requirement for higher education is growing at such a rate that online learning currently offers the only viable solution to meeting the needs of vast numbers of learners. These online services need to be managed across a wide range of delivery mechanism, from simple mobile devices to advanced computing facilities. Let us educate. Empower and enlighten every learner with an ideal combination of traditional and innovative approach of learning. In 2030, it has been estimated that India will adopt transformative and innovative approaches in higher education. India will be a single largest provider of global talent. With digital technology and online learning, we can come across one in four graduates in the world being a product of Indian higher education system.

References :

- David, S., & Glenn, H. (2000). E learning innovation through the implementation of an internet supported learning environment. *Journal of Educational technology and Society*, 422-432. Retrieved from <http://www.jstor.org/stable/jeductechsoci.3.3.422>

-
- Hannan, A. (2005). Innovation in higher education :contexts for change in learning technology. *British Journal of Educational technology*, 26(6). doi:10.1111/j.1467-8535.2005.00568.x
 - Mahadeva, S., & Karigowda, D. (2017). Innovative Library Services in the Modern Era. *ADINET2017 : Reimagining todays librarinaship* (pp. 29-32). Delhi: Bookwell.
 - Miles, M. B. (1964). Innovation in Education. In M. B. Miles, *Educational Innovation: The nature o fthe problem* (pp. 1-46). New York: NY Teachers College Press.
 - Mohamed, H. K., Jameela, P., & K, V. (2013). Institutional Repositories in India. *E resources & E learning: Challenges & Opportunities for Libraries* (pp. 22-24). Calicut: University of Calicut. Retrieved 10 10, 2018, from https://www.researchgate.net/publication/291831742_Institutional_Repositories_in_India
 - Rogers, E. M. (1983). *Diffusion of innovations* (3rd Ed.). New York, NY: Free Press.
 - Rogers, E. M. (2003). *Diffusion of innovations* (5th Ed.). New York, NY: Free Press.
 - <https://www.coursera.org/> accessed on 10/11/2018
 - <http://egazette.nic.in/> accessed on 15/11/2018
 - <https://onlinecourses.nptel.ac.in/> accessed on 11/11/2018
 - <https://www.magzter.com/> accessed on 01/12/2018
 - <https://epgp.inflibnet.ac.in/index.php> accessed on 05/12/2018
 - <http://mobileappsforlearning.com/> accessed on 30/10/2018
 - https://www.researchgate.net/publication/291831742_Institutional_Repositories_in_India accessed on 08/11/2018
-

The Use of E-Resources in Government Law College Library in Maharashtra : A Study

Dr. Subhash Dhule

Librarian, Government Law College, A Road, Churchgate, Mumbai-400020.(India)

yavatmal72@gmail.com

ABSTRACT :

This paper presents the use of E- resources in Government Law College, Mumbai, Library. It also discusses the purpose and uses of e- resources and legal database. Overall user satisfaction and problems that are faced during accessing e- resource and legal database. Government Law College (GLC), established in 1855, has the distinction of being the oldest Law College in Asia, dating even prior to the University of Mumbai, and enjoys a pre-eminent reputation for excellence in the field of legal education.

Keywords:

E- Resources, Legal Database, Digital Library

Introduction :

Government Law College, which has a rich heritage and pedigree, is the repository of erudition in the legal firmament and has had the privilege of guidance under eminent legal person such as Dr. B. R. Ambedkar, Lokmanya Tilak, Justice M. C. Chagla, Sir Motilal Setalvad (first Attorney General of India), Sir Dinshaw Mulla, Justice Y. V. Chandrachud, Mr. Nani Palkhivala and several others who have adorned benches of the Supreme Court of India and the Bombay High Court. The students who have passed out from the portals of GLC have distinguished themselves at the Bar, the Judiciary and the Academe. From these portals, have passed the likes of five Chief Justices of the Supreme Court of India, Ms. Pratibha Devisingh Patil, former President of India, and Mr. Lal Krishna Advani, former deputy Prime Minister of India.

Library is a knowledge resources centre of every institute. The library is known for its rare collection of books and treatises on various subjects not limited to law.

GLC library provides smooth and effective library services to every library user. Library has separate ERR room with 21 computers with high internet connection speed. GLC Library has subscribe various legal database such as LEXISNEXIS, MONOPATRA, SCC online, WESTLAW and NLIST.

The Paper describe available e- resources, legal database and use thereof in the library. it mentions suggestions and recommendations to improve library services for benefit of the user at large.

Objectives of the Study :

- To examine the user's extent of requiring various legal information.
- To find users purpose of searching e-resources.

- To study Users satisfaction and problems in accessing the e-resources.

Methodology :

The present study aims to use of e- resources in government law college library Mumbai, keeping in view the above objectives, a questionnaire is prepared to collect required data from the library user. The questionnaire contains various questions related to objectives. The sample selected for present study is Simple Random sampling method. The 100 questionnaires distributed among the library user of Government Law College, Mumbai out of which 85% questionnaires collected and then data is analysed.

Analysis and interpretation of Data :

The data is collected by questionnaire tool the same is analysed, interpreted and presented in following tables.

Frequency of Library Visit :

Table No. 1 :

Visitors	Daily	Thrice a week	Twice a week	Once in week	when required
Numbers (85)	42	8	9	17	8
Percentage (%)	49.41	9.41	10.58	20	9.4

Table no. 1 indicates that 49.41% library user are visited library daily, 9.4% user visited as and when required 20% user visited library once in a week and 9.41% thrice a week and 10.58% user visited library twice a week.

Information Searching Pattern :

Table No 2 :

Searching	Legal websites	Only legal database	Other source
Numbers (85)	15	60	10
Percentage (%)	17.64	70.58	11.76

From above table no. 2 It is found that most of library user use only legal database searching information pattern 70.58%. 17.64% user used legal websites and 11.76% use other sources for searching information.

Purpose of Using Electronic Information Resources :

Table No. 3 :

Searching	For study course work	For updating subject knowledge	For research purpose
Numbers (85)	58	20	7
Percentage (%)	68.23	23.52	8.23

Above table no. 3 shows that 68.23% users use e- resources for study course work, 23.52% for updating subject knowledge and 8.23% for research purpose.

Mostly Which Legal Database Used :

Table No. 4 :

Searching	SCC online	Lexis Nexis	Monoptera	West law	Other
Numbers (85)	15	14	41	10	5
Percentage (%)	17.64	16.47	48.23	11.76	5.88

Figure. No.1

Table no 4. found that most of law students used legal database MONOPATRA 48.23%, SCC online used 17.64% and LEXIS NEXIS used 16.47% and WESTLAW 11.76% and another legal database are used 5.88%.

Which Other E- resources Used :

Table No. 5

Searching	NLIST	Free Database	E- journal	E- books	Email	Other
Numbers (85)	12	30	15	13	7	8
Percentage (%)	14.11	35.29	17.64	15.29	8.23	9.41

From table no.5 it is found that most of students use other e- resources such as free database 35.29% and Email- 8.23% E- journals 17.64% N- LIST 14.11% E- books 15.29% and other e resources are 9.41% respectively.

Problems of Accessing Electronic Information Resources :

Table No.7

Searching	Internet issue	Lack of Training	Lack of Accessing Legal Database	Other
Numbers (85)	10	15	45	15
Percentage (%)	11.76	17.64	52.94	17.64

From above table no.7 it is found that most of students have problems in accessing legal database problem 52.94% and user has lack of legal database training 17.64% and any other problem 17.64% internate issue are 11.76% respectively

Satisfaction of Library User :

Searching	Satisfied	Partially Satisfied	Fully Satisfied	Not Satisfied
Numbers (85)	35	16	24	10
Percentage (%)	41.17	18.82	28.23.	11.76

Table no.8

It found that Satisfaction of online legal database that most of students are satisfied with online legal database 41.17% and 28.23% students are fully satisfied 18.82% students are partially satisfied and 11.76% students are not satisfied.

Findings :

- Most of the students of government Law College visit library daily and availing all the facilities available in the library.
- Few of them visit library for updating subject knowledge, to use e- resources and to complete subject work as per their requirements.
- Very few students use e-resources for research purpose.
- The students of Government Law College, Mumbai are of different Streams, like Art, Commerce, Science. hence, they are not aware of e- resources and legal database. Due to lack of training of using e- resources newly admitted students are mostly facing the problems.
- Most of students are satisfied with library e-resources and legal database
- Some students use free database for their course work.
- MONOPATRA , SCC ONLINE , LEXISNEXIS legal database are mostly used.

Recommendations :

Based on the findings of the study the following recommendation are made

1. Awareness should be created to use electronic information resources and online database to fulfil information need.
2. More computer terminals installed in the GLC college library for easily accessible e- resources for students.
3. Before subscription of legal database feedback from students and faculty members.
4. Bandwidth of internet connection must be increased for faster access, so that downloading time will be reduced.

Conclusion :

This paper concludes that large number of E- resources, legal database facilities and services available in Government Law College Library are availed by the user for learning, doing research and completion of course work purpose and user are satisfied with the same. however, Government Law College library also making efforts to organise legal database orientation programme for newly enrolled students.

References :

- Asefeh A Nosrat R (2007) Awareness and use of Digital Resources in the libraries of Isfahan University of Medical Science Iran' *The Electronic Library* 25(3):316-327.
- Chowkhande VG , Kumar PSG (2004) Analytical Study of information needs and use pattern of Faculty Members and Research Scholars of Amravati University. *ILA Bulletin* 40(3) 23-31.
- Kumar Arun (2009) Use and Usages of Electronic Resources in Business schools in India, *FIIB International Conference on Academic Libraries*, 46, 573-578.
- Miller R.H. (2000) Electronic resources and academic Libraries, 1980-2000: A historical perspective, *Library Trends* 48(4) ,645-670.
- Ramesh Kumar (2015) Evaluation Study of E-Resources in Law college, *International Journal of Academic Research*, vol2 issue.4.

Library User Engagement Strategies - A Study of GNIMS Business School, Mumbai

Dr. Kuljeet G. Kahlon

Library Manager,
Guru Nanak Institute of Management Studies,
King's Circle, Mumbai - 400019. India.

kuljit@gnims.com

Ms. Neeta D. Malik

Assistant Library Manager,
Guru Nanak Institute of Management Studies,
King's Circle, Mumbai - 400019. India.

neeta@gnims.com

ABSTRACT :

To be a Librarian is not to be neutral or passive or waiting for a question. It is to be a radical positive change agent within your community. R. David Lankes.

User Engagement is playing a dynamic role in today's digital society. New Trend of the Librarians is to use social media to connect with their Users. New generation Users requirements are assessed by the Librarians and by evolving new innovative concepts the Users requirements are meet.

This paper will discuss library transformation and creative approaches, to satisfy to the new generation of Users. One of the most important things that a good library can offer is a long-term relationship with the people who use library services. Library staff must satisfy all types of users and therefore they need to keep on updating their skills. The quality of services by a given library depends to a large extent on the quality of its staff.

Purpose : This research highlights the interaction of the users with library staff and how they utilize the library resources as well as the transformative and strategies undertaken to satisfy the new generation of users.

Design/Methodology / Approach : The library provides knowledge through books, magazine, online resources, newspapers, etc. and therefore, it plays a crucial role in everyone's life especially a User's, thereby making the User's engagement very important.

Originality : This research contributes to improving the efficiency, effectiveness and quality of the Library while addressing the requests of the Users and improving their satisfaction level. Users requirements were assessed by the Librarians and new innovative concepts were evolved to meet the user's requirements.

Keywords :

Interaction with Library Staff, Library Services, Library User Engagement and Social Media..

Introduction :

In this Social Age, Information flows freely and quickly. Social media has become a significant platform for libraries to

create their own participatory services emphasizing engagement with users. By having social media channels that are always open and participating in conversation with users, the library can constantly and effectively evaluate and refine its programs, products and services to ensure that the users are getting what they need. Library is a safe place to learn and grow.

Literature Review :

It is important to refer to previous studies done to know the background knowledge.

Hongbo Zou, Hsuanwei Michelle Chen and Sharmistha Dey (2015) has mentioned in their paper “A Quantitative Analysis of Pinterest: Understanding Library User Engagement Strategies for Effective Social Media Use” that Many businesses, cultural organizations, and social institutions are now seeking to leverage all aspects of social media to achieve their strategic goals.

Sharyna Shafawi and Basri Hassan (2018), in their research paper “User Engagement with Social Media, Implication on the Library Usage: A Case of Selected Public and Academic Libraries in Malaysia” discusses that the mainstream use of social media has impacted the library as it has been identified to be an efficient platform for libraries to foster networking and enhance engagement with their user community.

Research Methodology :

Problem Statement : Utilization of Resources has been slowly decreasing in the libraries, with the advent of the Social Media. Libraries should use different strategies to connect with the users and to increase the utilization of the Resources.

Objective :

The objective of the study is to investigate the factors that drive user’s engagement with social media and further examine the relationship of user’s engagement with social media and actual library use from both users and librarian’s perspectives.

GNIMS Library has also been using different strategies to engage with its Users.

The strategies applied by GNIMS Library to engage or connect the users with the library are as follows :

1. **Author Outreach Program:** This is an annual event of the Library where a Author is invited to give a talk to the students. Before the event, the students are eager to know what books the author has written. As per our past experiences, this strategy to invite authors to interact with the students have worked very well as more students are using the Library Resources.
2. **Business Situation Writing Competition:** Another annual event of the library. Students are motivated to take part in the competition. Certificate of participation and first three prizes are awarded to the students. Best two essays are also published in the Sansmaran Management Research Journal, a bio-annual Journal with Impact Factor. GNIMS is providing a platform and motivating students to write research paper.
3. **Book Review Competition:** Book Review Competition is held annually to encourage students to read and take part in the competition. Users select the books from the Library for the Book Review Competition.
4. **Connecting with the Users:** This event displays the Subject In-House Books and Journals so that the Users are aware of the Resources and they in turn can get them issued. This display benefits all our users – Full time as well as part-time.

5. **Top 10 Users:** Every Month Top 10 Users of the library are displayed on the Notice Board and this encourages the other students also to read and come in the next Top 10 List. This list is also uploaded on the Library Website and forwarded on the Class Representative WhatsApp Group.
6. **Library Website:** The user's experience of the library website should be ideal, and easy to use. Library homepage should focus on top user tasks and quickly and easily lets students know what services and resources the library can provide, both online and on campus.
7. **Book Exhibition:** GNIMS Library organizes book exhibitions where the users are invited to recommend books for the library collection. This helps in the growth of the Library collection as well as motivates the Users to utilize the resources selected by them.
8. **WhatsApp Group:** Class Representative WhatsApp Group is created for all the new batches, where information regarding Library Services, Events, New Arrivals, etc. are passed on to the Users regularly.
9. **Social Media:** Library Events (Post -Pre-Events) are posted on Social Media like Facebook, Twitter and LinkedIn and inform the students about the same.
10. **Feedback:** Regular feedback is taken from the Users and their suggestions are implemented as soon as possible. Implementation of the Users suggestion is a great strategy for User engagement. Library communicate to the Users regarding the Implementation.
11. **Life-Time Members :** Our users are also taking the Life-Time Membership of the Library after they finish their course. During their course, they get attached to the library and are satisfied by the Library Resources and the services provided to them, hence they take the Life-Time Membership of the Library.
12. **DEAR (Drop Everything and Read):** A monthly event of the Library, where all the members of the GNIMS Family read for at least half an hour. The reading is done in the library or in their respective classes. They read any things besides their course work – Novels, Light reading, newspapers, etc.

GNIMS Library have the following criteria to give the best library user award :

1. Transactions of the users for the during of the course.
2. Library keep the record of the students who are regular in DEAR.
3. Students taking part in the different activities organized by the Library.
4. Volunteering / coordinating for the library activities.

Keeping the above parameters in mind, the Best Library User is selected and given the award during the Farewell Program.

13. **Library Session:** Library session is conducted for the PGDM Batch every Wednesday. We conduct Business Quiz, ask students to give review of the book they have recently read, have discussions on current awareness topics, etc.
14. **Orientation:** Orientation to the new batches is given in the library itself, so that they are aware of the library resources. A practical orientation is given to them for better engagement with them.
15. **Training Programs:** Library also provide the Users with the training Programs for Using the e-resources. Training programs are organized regularly for staff as well as students. The new batches are given training during the

orientation week itself.

Conclusion:

First Impression matters a lot. Library Staff must make a great impression on the User, so that the user is happy, satisfied with the services offered and will use the library resources regularly. The ability to discover User interests can greatly help libraries to engage more Users through precise strategic interactions. Social media has become a significant platform for libraries to create their own participatory services emphasizing engagement with users. The relationship between the library staff and users can bloom based on the establishment of a good communication that takes place between the two.

The scope of this research is to employ more strategies to engage with the users. GNIMS Library is planning a small kid Zone for the Life-Time Members. We plan to engage the kids with some educational activities, so that their parents keep coming to the Library and utilize the resources. This will in future create more users for the library.

References:

- Anne Edwards, Judy Sebba, and Mark Rickinson, (2011), *Improving Research Through User Engagement*, Routledge, 10-12.
- Dinesh A. Sanadi and Kuljeet G. Kahlon, “Perceptions of Service Quality in An Academic Library: A Case Study of User Friendly Librarian, in UGC sponsored one-day National Conference on LIS Professional in Emerging Technologies, December 30, 2015, 301-305.
- Dunn, J. “20 Ways Libraries Are Using Pinterest Right Now,” March 13, 2012.
- Gill Kuljeet J. Harbans Kaur and Dinesh A. Sanadi, “Role of Internet in Management College Libraries in Mumbai”, in International Conference on Digital Governance – Innovation Information and Libraries, Organized by MANLIBNET, April 14-16, 2016, 299-301.
- Kahlon, Kuljeet G., Malik, Neeta and Kaur Baljit, “Marketing of Library and Information Services: Study of GNIMS Business School, Mumbai”, in NIFT – BOSLA National Conference on Modern Librarianship: Opportunities and challenges NCLM-2018, 192-197.
- Kahlon, Kuljeet G., Sanadi, Dinesh Mayekar Archana and Malik, Neeta, “Developing Library Services According to Changing Needs of the Users, in Gyankosh, Vol.8, No. 2, July-December 2017, 1-6.

WEB Bibliography:

- www.lib.gnims.com, accessed on September 3, 2018.
- www.gnims.com, accessed on September 6, 2018.
- <http://search.ebscohost.com>, accessed on September 6, 2018.
- <http://search.proquest.com/business/131417>, accessed on September 3, 2018.
- <https://librarysciencedegree.usc.edu/resources/articles-and-blogs/6-library-leaders-who-made-a-difference/>, accessed on September 6, 2018.
- <http://www.edudemic.com/20-ways-libraries-areusing-pinterest-right-now/>, accessed on September 3, 2018.

Need for Innovation in College Library and Information Services

Dr. Madhukar N. Shewale

Librarian, Yashwantrao Chavan Maharashtra Open
University, Nashik, Maharashtra.
m_shewale@yahoo.com

Mr. Ganesh Ramdas Sanap

Research Scholar, Tilak Maharashtra Vidyapeeth, Pune.
digilibtrend@gmail.com

ABSTRACT :

In the changing environment of Information Communication Technology (ICT) and related technology, the nature of information need of modern society have been changed. Due to the advancement of ICT tools, less usage of library resources and services is the big challenge for librarian in the present day. With the handling responsibility of promote to reading culture in the students, librarians need to identify their interest in terms of information seeking. College librarians need to rethink about the available library and information services as per the present demands of the user. In this paper, the author introducing the present as well as future challenges of college libraries and describing innovative or modern library and information services applicable to college libraries in present day.

Keywords :

Innovative Library Services, Challenges of Library, College Library Services, etc.

Introduction :

From the last decade, the Information Communication Technology became an integral part of library and information centres. Now days, most of the college libraries have automated library system. But still the automation and the application of ICT tools in the library services not enough. Librarians need to do research on the users trends periodically towards information requirement. As per the trend, library professional need to develop their services area. In the academic library, librarians are facing various problems such as lack of fund, lack of IT infrastructure, lack of skilled manpower etc. College librarians can't change the system easily without support from staff and the management. But if the library professional goes systematically, then the change will come in the system and it will overcome the challenges of libraries. The transformation of college libraries from traditional to digital is started early 1990. But still few of the libraries in India not able to change because of several problems as said above. Ebunuwele and Ola (2014) suggested in his article that and "The new manner of information handling requires that the librarians can no longer sit on the fence on professional spectatorship if he/she must meet the challenges of the changing environment. Therefore there must be incessant training for the librarians in the area of ICT". Some extent Open Source Software and Open Access Resources gives the solution on financial problems, but library professional need to rethink and develop the ICT skills to apply the technology in the library. Library professionals may provide better information services on the basis of Open Source library Software and Open Educational Resources. Now days, there are thousands of open access journals and e-books are available freely over the internet. These free resources can be used to provide modern information services to their user.

College Libraries :

According to Sehagal & Sethi (1998) a college library is a Library which is established, maintained and administrated by a college to meet the need of its students and faculty.” (Sehagal & Sethi, 1998)

The major objective of college libraries is to acquire course related information resources and manage the information resources as per service required by the user. College library is a supportive centre to the higher education system to achieve its objectives and also performs the important role in the perception of higher education, passing the cultural heritage to the next generation as well as develop reading habits among the youth.

Challenges of College Libraries :

Thamaraiselvi, G (2009) stated technological revolution in the field of higher education. He said that “Technological innovations have brought tremendous changes in the whole education process and have led to a paradigm shift from teacher based education to a learner based education system” as per the users trend towards the information seeking, following challenges have to face to the college librarian.

- **Changing Role of Academic Librarian:**

The role of academic librarian has been change in this digital era. Now the library professionals need to apply a set of skills for facing the present challenges of web technology. In this e-learning environment library professionals have to perform new roles such as role of great leadership, proactive role in the professional activity, act as a master of web, information scientist, information analyst, role of digital resource manager etc.

- **Trend in Digital Form of Information :**

Many organisations in India created digital library and provide open access to the digital content. It is because of the trend among present users about finding information in digital form. Therefore library professionals need to develop the nature of library services as per the present trend of the user. The famous example of digital initiative is National Digital Library on India which is created by IIT, Kharagpur (<https://ndl.iitkgp.ac.in>).

- **Develop Library And Information Science :**

Earlier, there was only library science in India but today, information science becomes an integral part of the library science. The library science contains theory and the technique of acquisition, organisation and distribution of printed resources to the user when they required. After 1990s the library science included information science which becomes great stream to make library professionals capable to face future challenges. But in this digital era, there is need of qualitative research in the field of library and information science which will be able to survive library professionals in the virtual age of the future.

- **Status of College Librarian :**

The college librarian’s role is behind the curtain which can be seen in the form of facilities and services. In India, most of the users of colleges are not aware about the librarian. Because they not in touch with the user. Librarian need to come forward and share the knowledge with the user about information finding, sharing and its management. So, in this era, college librarians should be recognised as information servant, knowledge manager, research officer, technological assistant etc. and they should act accordingly.

Innovative Services in Library and Information Services :

“In order to solve the problem a new technology of push is put to use in library. Its aim is to transform service mode of ‘users-look for-information’ into ‘information-look for- users’. Information will be delivered to users timely. Users may get the new information issued from the website without visiting it every time”(Jinmin, 2011).

The present college library must able to provide following innovative library and information services to the user.

1. Automated circulation based on software, RFID technology etc.
2. Circulation of electronic resources
3. Web OPAC for access remotely
4. Institutional Repository for college and syllabus related material such as college prospects, various reports, research articles, PPTs, Educational links, news clippings, etc.
5. Remote access to e-journals and e-databases
6. Library web page for virtual library and information services
7. Ask librarian facility
8. E-notes related to curriculum.
9. Information searching tools
10. Instant messaging
11. Translation services through software
12. Career related guidance
13. Research assistance and guidance
14. CAS and SDI through e-mail
15. Internet connection and Wi-Fi for personal devices.
16. Mobile applications for access library resources through mobile.
17. Blogs
18. Extension services such as study and career counselling through social media, conduct easy competition, debate competition and other competitions to attract users towards library.
19. Daily Book Review program through Social Media
20. Online application counter for competitive exam.

Most of the above mentioned services are in digital form and remotely accessible.

With holding the printed resources, academic library should provide these innovative services to the user in this digital era to face the present as well as future challenges. The decreasing ratio of library use will stop and these innovative services will help library to increase foot fall of the users. The traditional library and information services need to convert in the newer form as we can say “old wine in a new bottle”.

Conclusion :

As discussed above challenges of college librarian and the innovative library and information services are linked to the present trend of the user. In this era, most of the user prefer internet instead of library for finding information. Now, the college library should be ready for providing remote access library and information services available by 24×7. Therefore skilful librarian is needed in this digital era for facing the challenges. The open access initiative is also dawned. The college libraries need one time investment in the IT infrastructure. Electronic information services are less expensive than printed or conventional library services if the library having good IT infrastructural facilities.

References :

- Sehagal, R., & Sethi, S. (1998). *A to Z Library Professionals Dictionary*. New Delhi: Ess Ess Publications.
 - EBUNUWELE ESEOHE, G & Ola, Olalekan Simeon (2014). Application of information Communication Technology in academic libraries in Nigeria. *International Journal of Education and Research*, 2 (12), 423-436.
 - Thamaraiselvi, G (2009). Vision and the changing roles of the future academic library professional in the e-learning environment. *Vision and roles of the future academic libraries, ICAL 2009*, 139-143.
 - Jinmin, W. C. & H. (2011). Innovative information services in the digital environment. *World Library and Information Congress/ : 77th IFLA General Conference and Assembly*, 1–14. <https://doi.org/10.1111/j.1651-2227.2011.02506.x>, accessed on August 31, 2018.
-

Scope of Artificial Intelligence (AI) in Library Systems

Ms. Siddhi U. Jagdale

Librarian, Chetana's Institute of Management & Research, Bandra (East), Mumbai - 400051.

library@cimc.in

ABSTRACT:

This paper will explore the information about Artificial Intelligence concept and view of the scope for artificial Intelligence in Library Management Systems. Ai is branch of computer science could impact and improve all sciences which part of computer science. LIS could also get the benefit from AI in many areas. This Article is applications of AI in library and information science and introduce the potential of Library Management System to apply AI techniques.

Keywords :

Artificial Intelligence (AI), Library Management System (LMS), Expert System (ES), Data Mining, Exploratory Factor Analysis (EFA).

Introduction :

Artificial Intelligence (AI) has been established as a research area for some 35 years, at least since 1956. I am in the areas of Computer science focusing on creating machines that can engage on behaviors that humans consider intelligent. Now, in the 21st century, a new quasi- magical things has come in to our life: artificial Intelligence and just as it was in the early days of the electronic revolution, we are only beginning to grasp how completely this new technology will transform our daily lives. Every major technology company is betting on machine learning, hoping to be a player in the coming revolution by developing proprietary machine intelligences to perform tasks that used to require human intelligence.

AI is the of computer science focusing on creating machines that can engage on behaviors that human's behaviors that human consider intelligent. AI techniques has utilized in many areas such has business, management, medicine, military and etc. also has developed in using intelligent systems.

The Ideas of utilization intelligent system instead of classic system in libraries started from 1990. Intelligent library systems utilize AI technologies to provide knowledge – based services to library patrons and staff AI is a broad, complex area of study, which can be difficult for non- specialists to understand. This system is actually act like human intelligence, and this clearly has major implications for librarianship.

Objective :

To find out the Artificial Intelligence Effectiveness in Library Science.

Artificial Intelligence:

The before the understand “intelligent” systems, we have to understand the nature of intelligence. This lack of a widely

accepted definition of intelligence is an obstacle for AI researchers. AI is the science and engineering of making intelligent machines, especially intelligent computer programs. It is concerned with the study and creation of computer systems that exhibit some form of intelligence: systems that learn and study new things about the systems that can reason for useful conclusions about that world around us, systems that can understand and feel a natural language or perceive and comprehend a visual scene, and systems that perform other types of feat that require human types of intelligence.

It is the Application of Computer and utilization of computer based products and services in the performance of different library operations and functions or in the provision of various services and production of output products. Automating indicates extent of mechanizing where the customary or regular courses of procedures and the task or activity having quality of receiving are kept for performances of machine with negligible intervening by humans. Smaller the extent of intervening by humans, higher the extent of automating. That does not imply that automating replaces the need for humans. However, humans are realizing from day to day activity offering them more hours for work requiring brains.

For Example, at a station we might inquire: “What platform for the Delhi train?” and get the response: “The 10.30 has been cancelled. There has been a derailment at Vadodara. The 11.30 will probably be cancelled too.” This response depends on all kinds of knowledge about trains and follows extensive inference, for instance if someone asks about the Delhi train it means they want to go to Delhi is the 11030 but this is not certain knowledge and there is equally a quite long chain of reasoning between the question and answer.

AI and OR for Social Good :

The purpose of the AI for Social Good workshop was to explore and promote the application of artificial intelligence (AI) for purposes of social good. Historically the feeling of attention, Curiosity is having strength from Artificial Intelligence as well as Operations Research Societies on this area of knowledge with an explosion of AI Activities in immediate past in areas of knowledge like intelligence grids and optimized transportation systems (these two as command of higher efforts having ability to sustain that is parenting computation) at the same time the OR society has given support for prolong period in the dome like public sector. The concept of artificial intelligence (AI) is of great interest of attraction and sustainability full of infantine positional. It is oft charming to dream of the several attributes that computers driven by AI will give us in the future. This concept of extremely develop computers being capable of interacting with human begins producers meaning full opportunities for person engage in Library Services. Think about complete potentiation are waiting for us in the coming decade and years there after Using this new technology can provide a plethora of resources and services only portrayed before in fiction stories.

At Nova South-eastern University Law Library, is involved in a pilot project to do just that: They are introducing an artificial intelligence into our Web site to guide patrons in our Library, using our “Virtual Library Assistant,” called Page, is our latest effort to improve the services we provide to our patrons. For our Library staff, it is a matter of increasing patron accessibility to our resources and enhancing customer service.

Many technology-based tools exist today in our libraries. These tools in some way or another help us to complete our duties faster and more efficiently. From simple software programs such as PowerPoint to more challenging ones such as Flash MX, we benefit from their effectiveness and ability to help us complete our daily Library tasks. I believe that the use of innovative technologies such as AI is the logical next step for libraries. Artificial Intelligence is incorporating unique trend in technologies. So Library Professionals are keep continue to themselves for equal with technology and provide

better services. Since last few years back the (www)World Wide Web grip us to aware about the information. Know AI also applicable for providing right and accurate information to the society. This is service is called Artificial intelligence is used for helping to develop new technology and provide better services to society ? This introductory article will explain what AI is, what it can do, and who the vendors are today.

AI and Library Services:

Let us consider some history to recognize the conception of Artificial intelligence. In 1955, Stanford University's professor of computer science, John McCarthy, coined the phrase. John explains artificial intelligence as "the engineering and science of building brainy machines, particularly brainy programs to run computers. It is pertaining to the alike work of related the use of computers to perceive intelligence of human beans. however artificial Intelligence does not need to rustic itself to ways which can be observed biologically." Over the years, an expert in science have brought out the capabilities or possibilities of computers for carry out higher and higher complicated functions. The capability to carry out these functions could be persive as intelligence from a perception; consider it. If we put a question to your computer and we receive a right reply, i.e. is motivating. If we carry out communication with our computer, we would come to and conclusion that the computer has intelligent. That is the purpose behind AI technology. We can observe this "artificial intelligence" leading us as we browse our Web site. For example, it could give you verbal explanations on how to use the library catalogue.

The Interaction of new trends of software it will acquire software to allow to made necessary changes in interface of software to help to customer. Higher range of software are based on Artificial Intelligence. What you and I use to communicate is a natural language; computers utilize programming languages. So, you could say that an artificial form of intelligence would serve as the bridge between programming and natural languages, allowing us to communicate with our computers.

Conclusion :

1. We live in a world of algorithms. These days, we expect to get suggestions based on our past purchases or interests. The music streaming service use AI to suggest new music based on users' individual tastes—a tactic that libraries could take one step further. Using this technology, libraries could offer book recommendations, magazines, articles, authors, music, movies—any and all media the library offers could be promoted to enhance the user experience. AI could make finding new media more convenient for library patrons and introduce them to new material they may never have found otherwise. Aside from convenience and entertainment value, using AI to suggest similar materials could also help patrons who are doing research by combing the library database in an instant.
2. Libraries have the goal of serving as many people as possible, but funds are often limited. Increasing efficiency can help libraries streamline their operations and maximize impact in the community. Using big data, library managers and staff can gain more insight into user experience by quickly analyzing popular hours, popular books, and trending authors. These insights can then be used to make purchasing decisions and allocate resources where they will be most effective.
3. Big data has a long track record of cutting down on waste and increasing efficiency—smart routing, for example, Libraries have a lot of moving parts (including trucks that deliver books between branches), creating so many opportunities for big data to save precious resources.

-
4. Cybercrime is on the rise, and even organizations like libraries are potential targets for hackers. Individuals may try to hack anything from books, articles or even illegal music and video downloads. While library resources are generally free to borrow, some people want the materials permanently—and right away. New technologies that libraries are using add vulnerabilities—in the healthcare field, believe that mobile devices, the cloud, and the Internet of Things increase security risks.
 5. Librarians are skilled researchers, and usually know where to look for the book or information a patron is requesting. However, there is only so much a human can do to find relevant information, especially in large or academic libraries. For large collections or more esoteric request big data can make such and ultimately, more successful. Librarians can use the technology to track down information in minutes, getting patrons the information they need right away.
 6. Libraries may not use card catalogues anymore, but they use a blend of old and new methods to serve patrons. Big data is just another tool librarians can use to make sure they are offering what patrons really need. Some, including are already calling for libraries to become part of the big data conversation. Continuing to grow and change with technology, libraries continue to be a key part of strong communities—and big data can help them serve those communities even more.

References :

- Asemi, Asefeh (June 2018). Artificial Intelligence (AI) APPLICATION IN Library Systems in Iran: A taxonomy Study.
 - Bair, J. (1999). *Knowledge Management about Cooperation and Context*. Gartner Advisory Services Research Note, (May 14).
 - Binwal, J. C. (2011). *Knowledge Management IASLIC Bulletin*. June 46 (2). Gumaste, S. V., & Amdani, S. Y. (2007). Future Librarianship in Knowledge Society.
-

Internet of Things : An Overview

Bhagyashree Vinit Tamhane

Librarian, K.P.B. Hinduja College of Commerce, 315, New Charni Road, Mumbai 400004

Shreebala896@gmail.com

ABSTRACT :

The concept of a network of smart devices was discussed as early as 1982, with a modified Coke machine at Carnegie Mellon University becoming the first Internet-connected appliance, It was able to report its inventory and whether newly loaded drinks were cold. Mark Weiser's 1991 paper on ubiquitous computing, "The Computer of the 21st Century", as well as academic venues such as Ubi Comp and Per Com produced the contemporary vision of Internet of Things. Between 1993 and 1997, several companies proposed solutions like Microsoft's at Work or Novell's NEST. Present paper discusses about the Internet of Things and its benefits and risks.

Keywords:

Internet of Things, Global Connectivity, Computer Technology, Cloud Computing.

1. Introduction:

The term "Internet of things" was likely coined by Kevin Ashton of Procter & Gamble, later MIT's Auto-ID Center, in 1999, though he prefers the phrase "Internet *for* things".

Defining the Internet of things as "simply the point in time when more 'things or objects' were connected to the Internet than people", Cisco Systems estimated that Internet of Things was "born" between 2008 and 2009. The definition of the Internet of things has evolved due to convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems. In brief, the "things" in Internet of Things are the everyday objects in your house, only hooked up to the internet.

The implementation was developed by Kary Främling and his team at Helsinki University of Technology and more closely matches the modern one, i.e. an information system infrastructure for implementing smart, connected objects.

The definition of the Internet of things has evolved due to convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems. Traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and others all contribute to enabling the Internet of things.

More advanced examples that you may end up seeing in your home within the next few years are a fridge that reminds you to get milk when you're out by scanning the RFID chips in products or a garage door that opens when it detects you have driven onto your street.

There are almost endless examples to pick from when you start looking at Internet of Things projects under

development now and all of them have one thing in common: in all cases the devices in your home, at your office and in your pocket are able to “talk” to each other and make limited decisions based off that information.

Though the Internet of Things is a wonderful development that will bring a lot of improvement to both our lives as well as the way business is conducted, the risks associated with it should not be ignored.

2. How Does the Internet of Things Work?

Now that we’ve established what the Internet of Things is and the kind of cool stuff you can do with it, let’s take a look at how it works. In essence the Internet of Things is one huge cloud. Though the tiny chip in that teamaker is dumb as a rock, thanks to its WiFi connection with a proper computer. it’s as smart as any supercomputer, allowing it to do its thinking other than in its own brain. The tea pot in this scenario is the physical part of the Internet of Things, the one you physically have in your house. On top of comes the cloud, in which all these machines interact with each other. There are also communication protocols in place so your car can’t send messages to your tea machine and vice versa.

All this is controlled through some kind of control device, most likely an app on your phone or tablet. Ideally this would be one program that gives you an overview of every Internet of Things device you have, but in practice you’ll probably have an app running for each device you own, at least until some figures out a way to combine them all.

These concepts behind the Internet of Things aren’t too difficult to grasp, but they aren’t what makes the Internet of Things as powerful and impressive as it is. For that, we have to look at what these devices do with the information they collect.

3. Benefits of Internet of Things :

The benefits of the Internet of Things are first and foremost found in industry. In a way its manufacturing that has led the charge here, as letting machines talk to each other directly rather than through humans has brought about a serious uptick in production across the board. So now some factories basically run themselves, with machines telling each other what they need and when. The Internet of Things is a truly amazing development that is likely going to change our lives for the better: it’s already bringing about massive positive changes in industry, healthcare, logistics and our own homes. However, as with all such developments, there is a darker side that we need to deal with as well.

3.1. The internet of things offers a number of benefits to organizations, enabling them to:

- monitor their overall business processes;
- improve the customer experience;
- save time and money;
- enhance employee productivity;
- integrate and adapt business models;
- make better business decisions; and
- generate more revenue.

- Internet of Things encourages companies to rethink the ways they approach their businesses, industries and markets and gives them the tools to improve their business strategies.
- The rise of the robots that is going to influence the labor market quite strongly over the next few decades is in large part due to Internet of Things technology.
- For regular people the changes are slightly less obvious except for the resulting unemployment, of course, but we can expect more and more everyday things to be controllable remotely, usually through our phone.
- Since the elements necessary are so small — and thanks to the revolution in chip manufacturing, not to mention DIY circuit boards like Raspberry Pi so very, very cheap — pretty much anyone can get some parts together and put an Internet of Things device together in their basement. It's a real sea change in computing and the way we interact with the digital world.
- In healthcare, IoT offers many benefits, including the ability to monitor patients more closely to use the data that's generated and analyze it. Hospitals often use IoT systems to complete tasks such as inventory management, for both pharmaceuticals and medical instruments.

4. The Internet of Things, Analytics and Machine Learning :

As you can imagine, being wired up all the time an Internet of Things device is at risk of experiencing a serious informational overload. Being as dumb as it is, it leaves the thinking up to a cloud of some kind, be it a network of uncountable tiny devices, a big, badass supercomputer or a combination of these.

No matter where all this data is processed, there's so much of it that the brain of the outfit needs to sort through it all and decide what's relevant and what isn't. Your tea maker can use the information from your alarm clock to know what time you're getting up in the morning, but not knowing that your car is low on gas is of no use to it.

Through a process of analysis, which we can often see referred to as "analytics," an Internet of Things, brain can decide what it needs to know and what it doesn't. This process is often guided by human programmers, but more and more it is also inspired by devices themselves through what is now often called machine learning, but we may also recognize as deep learning.

Machine learning is a type of artificial intelligence that can, you guessed it, learn from its environment and the data fed to it and attach consequences to its choices in a very limited manner. Without machine learning, you'd have to program each and every IoT device by hand for every possible scenario; that's doable for coffee makers, but impossible for, say, a car. If you think of the Internet of Things, try and think of it as standing on a tripod: if one leg goes missing, the whole thing falls over. If machine learning is one leg, then the cloud and chip miniaturization technology are the other two.

5. Risks of the Internet of Things :

The threat of Skynet aside, there is a real risk inherent to the Internet of Things. However, it's not as sexy as your self-driving car trying to kill you and is therefore a little underreported. It centers around the same question that always pops up when large, in this case huge, amounts of data are at stake: namely, what happens to all that information? By letting an Internet of Things device in your home, you're basically installing a bug, one that can

gather data from other digital devices, maybe even hear and see you. This isn't that bad in and of itself, it needs to fulfill its purpose after all, but what happens with the data it gathers?

This question reared its ugly head during the United States Senate debate about ISPs being allowed to spy on their customers and the fact is, all this data is out there: the more Internet of Things devices you have in your home, the bigger the chances are that certain data regarding your life is recorded somewhere. If someone has seen it is a second concern, but it does exist.

In fact, certain Internet of Things gurus have touted this data gathering as a major plus to the Internet of Things for marketers and the like, as by knowing your habits, it will be easier to target ads at you. If you're even remotely concerned about your privacy, this will likely be a terrifying thought.

After all, when you boil it all down, we all have something to hide somewhere and it's going to be all the easier to find by having all that data floating around. On the flipside of that, how will it affect your behavior if you know you're being spied on all the time, and by the devices you paid for with your own money? Will you still be able to lead the life you've always wanted?

Whether it's unemployment due to automation or even more of your personal data being hacked on the open market or simply criminals being able to mess with more facets of your life, the Internet of Things is not something consumers should embrace blindly without knowing about all the risks.

6. Consumer and Enterprise Internet of Things Applications :

There are numerous real-world applications of the internet of things, ranging from consumer Internet of Things and enterprise Internet of Things to manufacturing and industrial Internet of Things (IIoT). IoT applications span numerous verticals, including automotive, Telco, energy and more. In the consumer segment, for example, smart homes that are equipped with smart thermostats, smart appliances and connected heating, lighting and electronic devices can be controlled remotely via computers, smartphones or other mobile devices. Wearable devices with sensors and software can collect and analyze user data, sending messages to other technologies about the users with the aim of making users' lives easier and more comfortable. Wearable devices are also used for public safety — for example, improving first responders' response times during emergencies by providing optimized routes to a location or by tracking construction workers' or firefighters' vital signs at life-threatening sites.

7. Conclusion :

The Internet of Things is a truly amazing development that is likely going to change our lives for the better: it's already bringing about massive positive changes in industry, healthcare, logistics and our own homes. However, as with all such developments, there is a darker side that we need to deal with as well.

8. References :

- Mattern, Friedemann; Floerkemeier, Christian (2010). "From the Internet of Computer to the Internet of Things" (PDF). *Informatik-Spektrum*. 33 (2): 107–121. Retrieved 3 October 2018.
- Pontin, Jason (29 September 2005). "ETC: Bill Joy's Six Webs". *MIT Technology Review*. Retrieved 17 November 2018.

- Ashton, K. (22 June 2009). "That 'Internet of Things' Thing". Retrieved 9 May 2018.
- Commission of the European Communities (18 June 2009). "Internet of Things — An action plan for Europe" (PDF). COM (2009) 278 final.
- Dave Evans (April 2011). "The Internet of Things: How the Next Evolution of the Internet Is Changing Everything" (PDF). CISCO White Paper.
- Vongsingthong, S.; Smachat, S. (2014). "Internet of Things: A review of applications & technologies" (PDF). Suranaree Journal of Science and Technology.
- "The Enterprise Internet of Things Market". Business Insider. 25 February 2015. Retrieved 26 Nov. 2018.
- "How IoT's are Changing the Fundamentals of "Retailing"". Trak.in – Indian Business of Tech, Mobile & Startups. 30 August 2016. Retrieved 2 June 2018.
- "How IoT & smart home automation will change the way we live". Business Insider. Retrieved 10 November 2018.
- "The "Only" Coke Machine on the Internet". Carnegie Mellon University. Retrieved 10 November 2018.

Bibliography :

- Acharjya, D.P.; Geetha, M.K., ed. (2017). Internet of Things: Novel Advances and Envisioned Applications. Springer. p. 311. ISBN 9783319534725.
 - Li, S.; Xu, L.D., ed. (2017). Securing the Internet of Things. Syngress. p. 154. ISBN 9780128045053.
 - Rowland, C.; Goodman, E.; Charlier, M.; et al., eds. (2015). Designing Connected Products: UX for the Consumer Internet of Things. O'Reilly Media. p. 726. ISBN 9781449372569.
 - Thomas, Jayant; Traukina, Alena (2018). Industrial Internet Application Development: Simplify IIoT development using the elasticity of Public Cloud and Native Cloud Services. Packt Publishing. p. 25. ISBN 978-1788298599.
 - Stephenson, W. David. (2018). The Future Is Smart: how your company can capitalize on the Internet of Things—and win in a connected economy. HarperCollins Leadership. p. 250. ISBN 9780814439777.
-

CALL FOR PAPERS

International e-Journal of Library Science

ISSN No. 2319992X

Impact Factor - IJIF (2017) 4.101 • Impact Factor - PIF (2018) 4.005

Submission Requirements:

- ❖ Submitted manuscripts must be original work that is not under submission at another journal or under consideration for publication in any other form. In case the authors have received financial/technical assistance for completing the manuscript, they should acknowledge the same in the manuscript so as to avoid conflicts of ownership.
- ❖ After submitting the manuscript, until the editorial decision is communicated or if the manuscript is accepted for publication, without prior approval from the editor, authors cannot publish the manuscript in other publication.
- ❖ Maximum length of the manuscript should be between 4000-6000 words.
- ❖ Authors should send two electronic copies of the manuscript via e-mail attachment as a Microsoft Word document file at editor.elibrary1@gnims.com .
- ❖ One file should contain Title Page which should provide the names of all the authors, their institutional affiliation, mailing address, e-mail id and Fax/telephone number.
- ❖ One separate page including title of the manuscript, an abstract of no more than 200 words followed by up to 6 Key Words should be included in both the files. Author's identity or institutional affiliation should not appear on this page.
- ❖ The text should be double spaced and should be typed in Times New Roman style with a font size of 12 pts and 1 inch margin all around. Use standard indentation for paragraphs.
- ❖ Footnotes should appear at the bottom of the page on which they are cited/ referenced.
- ❖ Tables and Figures should be numbered in Roman Numerals and can appear either in the body of the manuscript or at the end of the manuscript. Sources of data used in both tables and figures should be duly acknowledged as a footnote to the same. In case some abbreviations and acronyms are used in the tables and figures, these should be duly described in the main body text of the manuscript where they have been cited/ referenced/ interpreted and well as in the footnotes of the table/ figure.



International Institute of Organized Research
I2OR Awards 2018

I2OR - Publication Excellence Award 2018

presented to

International e-Journal of Library Science

ISSN: 2319-992X (Online)

Web Address: <http://www.gnims.edu.in/research-journals/>

Chief Editor

Managing Editor

i2or.com

editor_i2or@gmail.com

Journal Listed in



SGPC's

Guru Nanak Institute of Management Studies

King's Circle, Matunga, Mumbai-400 019.

Tel.: +91 22 24043927/ 28. Telefax: +91 22 24043933

E-mail : editor.elibrary@gnims.com

Website : www.gnims.edu.in / www.lib.gnims.com