Research Paper

ICT Based Tools in Library and Information Centre and it's importance in modern era

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I.   Introduction

In the course of recent years, the situation of instructing and learning has changed significantly. In the meantime, data correspondence innovation (ICT) has empowered better approaches for setting up learning exercises. There have been huge advances in the field of business data and correspondence innovation (ICT) in late decades. ICT assumes a noteworthy part in advancement, raising efficiency and expanding data stream and in this way influences every single financial area. The present ICT and data blast period has added another measurement to data looking for exercises and made an immense range of alternatives for getting data in e-frame over the web and utilizing web. A lot of data has relocated from print media to e-media and has likewise given numerous gets to the data sources. The clients are more acclimated in seeking free data over the net which is accessible day in and day out utilizing World Wide Web (WWW). Web data looking for has made new difficulties for the bookkeepers in overseeing administrations and such examinations may be helpful in setting the new practices in libraries.

The progressive changes in productions and capacity of data have changed from original copy to print to microforms and at display in electronic media. The progressions are ceaseless and the present patterns in distributing have now moved from print to electronic or advanced and this has been acknowledged by all i.e. distributers, academicians, scientists, researchers, library and data experts and so forth. In the present data and ICT period electronic diaries, electronic books, the World Wide Web and full content and additionally bibliographic and interactive media databases have picked up prominence because of the elements, for example, advantageous and simple to utilize access and it spares and diminishes the physical space, economy in purchasing, different access and moment get to.

Modem data and correspondence innovations (ICTs) give the premise to the production of open and adaptable virtual learning situations. Fittingly outlined ICT programs are straightforwardly steady of modem dynamic inclining approaches with educators and mentors going about as facilitators. ICTs additionally can possibly increment quickly advanced education enrolments in a financially savvy way. Because of the expanding significance of ICTs in our everyday exercises, an alternate arrangement of aptitudes is required in the work environment.

ICT devices and uses in the librariesLibrary Automation

Library mechanization was first monster advance towards the utilization of ICT based items and administrations in libraries. It brings incredible transformation and spare gigantic time of clients and library staff for gathering and dispersing data. Library mechanization alludes to utilization of PCs, related fringe media, for example, S/W for computerization, attractive tapes, circles, optical media and so on. Library computerization makes the arrangement to give the 'right data to right peruser at the opportune time in a correct shape in a correct individual manner' which is the fundamental point of libraries. Library computerization satisfies the above request of libraries by giving the library exercises as productively, quickly, successfully, enough and financially. In this manner, the ICT made workable for robotization in libraries.

Programming for Library Automation: Commercial Software's: Soul, Libsys, Easylib, E-Granthalaya, Libsuit, SLIM and so forth.

Open Source Software's: Koha, NewGenLib,PhpMyLibrary, OpenBiblio and so on.

Bar Code Technology

In library bar-coding offers a ton of solace and simplicity to deal with mass routine undertakings effectively. The utilization of this innovation for charging/releasing of books is broadly distinguished and honed in the created nations of the world. With the assistance of an information gathering gadget, the standardized tags can be utilized to check stock, as libraries need to embrace stock confirmation at customary interims.

Scanning Technology

Scanner is essential in modernization of library. It is valuable for filtering content, picture and substance pages of books for show in the OPAC (Online Public Access Catalog) and furthermore utilized as a part of optical character (OCR) applications. Filtered archive might be coursed and gotten to effortlessly. Scanners are giving awesome help to setting up computerized and virtual library.

Electronic Information Resources It incorporates

Online Database E-diaries
E-books
CD's, DVD's
Electronic Theses and Dissertations (ETD)

Networking Technology

Library organize is a specific library co-task framework for unified improvement of co-agent program and administrations. Systems administration innovation utilizes phones lines, satellite correspondence, microwave correspondence, open exchanging phone system and bundle exchanging information arrange and so forth. Contingent on remove systems are sorted into LAN (Local Area Network) those aides in library housekeep and asset sharing WAN (Wide Area Network) that permits electronic correspondence among remote client's and MAN. DELNET, INDONET, INFLIBNET, NICNET, ADINET, ERNET, and so on are real WAN in India.

Internet: The Internet is a worldwide wide region organizes that associates PC frameworks over the world. It incorporates a few high-transfer speed information lines that contain the Internet "spine." These lines are associated with real Internet center points that convey information to different areas, for example, web servers and ISPs.

With a specific end goal to associate with the Internet, you should approach an Internet specialist co-op (ISP), which acts the broker amongst you and the Internet. Most ISPs offer broadband Internet get to by means of a link, DSL, or fiber association. When you associate with the Internet utilizing an open Wi- Fi flag, the Wi-Fi switch is as yet associated with an ISP that gives Internet get to. Indeed, even cell information towers must interface with an Internet specialist co-op to furnish associated gadgets with access to the Internet.

The Internet gives diverse online administrations. A few cases include

Web – a gathering of billions of website pages that you can see with an internet browser
Email – the most widely recognized strategy for sending and accepting messages on the web
Social media – sites and applications that enable individuals to share remarks, photographs, and recordings
Online gaming – recreations that enable individuals to play with and against each other over the Internet
Software refreshes – working framework and application updates can ordinarily downloaded from the Internet
In the beginning of the Internet, a great many people associated with the Internet utilizing a home PC and a dial- up modem. DSL and link modems in the end furnished clients with "dependably on" associations. Presently cell phones, for example, tablets and cell phones, make it workable for individuals to be associated with the Internet constantly. The Internet of Things has transformed basic apparatuses and home frameworks into "keen" gadgets that can be checked and controlled over the Internet. As the Internet keeps on developing and advance, you can anticipate that it will end up being a considerably more indispensable piece of everyday life. (Sources: https://techterms.com/definition/ web).

ICT alludes to innovations that give access to data through media communications. It is like Information Technology (IT), however centers fundamentally around correspondence advancements. This incorporates the Internet, remote systems, mobile phones, and other correspondence mediums.

In the previous couple of decades, data and correspondence innovations have given society an immmense range of new correspondence abilities. For instance, individuals can convey progressively with others in various nations utilizing advances, for example, texting, voice over IP (VoIP), and video- conferencing. Person to person communication sites like Face book permits clients from everywhere throughout the world to stay in contact and impart all the time.

Present day data and correspondence advances have made a "worldwide town," in which individuals can speak with others over the world as though they were living nearby. Therefore, ICT is frequently

contemplated with regards to how present day correspondence advances influence society through web as an instrument. (Source: https://techterms. com/definition/ict)

Library Consortia

A library consortium is a gathering of libraries who accomplice to facilitate exercises, share assets, and consolidate ability. Consortia are constituted for frequently being helpful for building up a formal structure in regards to asset offering to formal assertion by every member library. A library Consortium arrangement can be nearby, territorial, state, national and entomb institutional level.

Digital Archives

Libraries must give the best administrations to its clients, keeping in mind the end goal to meet the client's necessities, libraries in the past have refreshed their accumulations. All things considered, in the present situation, libraries must refresh their accumulations as well as give better access to data through the new data expressways. This can There are some tools and techniques of library accomplished through computerized chronicles. Digitization in libraries is the present reaction towards a speedier conveyance of data to its clients through the advanced files. The idea of computerized documents develops after the fast headway of ICT. The coming of advanced chronicles has extraordinary effect on libraries. It gives data expediently to the end clients. The computerized documents implies: gather the data and put away it, in machine-decipherable arrangement or advanced organization for dispersal to end clients. The computerized substance can without much of a stretch repeat at global.

Library 2.0 / Web.2.0

The concept of library 2.0 derived from web 2.0. The library 2.0 encompasses a range of new and contemporary products and services of ICT that used for evolving collaborative environment required for library 2.0. Owing to library's services, have focusing more on the facilitation of information transfer and information literacy rather than providing controlled access to it. New products and services based of ICT in forms of "Library 2.0" are the interactive, collaborative, and multi-media web- based technologies to web-based library services and collections.

The library 2.0 is a loosely defined model for a modernized form of library service that reflects a transition within the library world in the way that services delivered to users. With library 2.0, library services constantly updated and reevaluated best serve library users. The library 2.0 also attempts to harness the library user in the design and implementation of library services by encouraging feedback and participation.

Michael Casey coined the term "Library 2.0" on his blog Library Crunch as a direct spin-off of the terms Business 2.0 and Web 2.0. Casey suggested that libraries, especially public libraries, are at a crossroads where many of the elements of Web 2.0 have applicable value within the library community, both in technology-driven services and in non- technology based services. He described the need for libraries to adopt a strategy for constant change while promoting a participatory role for library users.

2.0 which are being used by today's libraries: Blogs, Wikis, Streaming Media, Tags or Tagging, Social Networks, RSS Feeds, Synchronous Messaging, Podcasts, Mashups and etc.

Some benefits of Library 2.0 are as follows CAS can receive in very effective manner.

A very quick communication can possible with library staff. Library can easily get users feedback minimum span of time.

It can keep update to library's users regarding its daily activities.

Multimedia data can be accessing by user and able to give feedback.

(Sources: http://warse.org/pdfs/2013/ijccn02212013.pdf)

Cloud Computing in Libraries

Cloud computing is being used in every domain like business, industries, corporate sectors. Through cloud computing one can access hardware and software promptly through internet. Application of cloud computing in libraries is a relatively new area as compared to its applications in business and corporate sector. Libraries all over the world are moving towards cloud computing implementation to use the features and services of it to make their infrastructures and services better. The basics of cloud computing along with its characteristics, types, advantages, needs and applications in field of libraries. Cloud computing is not the panacea of everything. There are some drawbacks also associated with it. The positive and negative aspect of cloud computing and it also tells the best practices for the implementation in the library environment to get the maximum benefit of it.

Libraries have travelled a long journey from its past phase to present. During its path of travel libraries also adopted the new and emerging technologies, though at slow pace as compared to other institutions. Libraries in the country like India are far behind as compared to their western counterparts.

Libraries have been adopting these technologies for long back, although the pace of adoption is slow. But, these technologies are playing a very important role in re-shaping the structure and services of libraries. The technologies like Printing press, computer, Internet, bar code, Radio Frequency Identification (RFID), web 2.0 and many others have transformed the libraries and now its turn of cloud computing.

As cloud computing becomes more pervasive, the libraries at all levels are in the process to embrace this revolutionary way of computing because of the potential cost savings and other important features. Cloud computing is a ray of hope even for those libraries which have no capacity to invest much on infrastructure. Through cloud computing implementation libraries can make their services better. Although there are many issues and challenges associated with cloud computing, but these can be taken care if a library follows the best practices associated with the implementing of cloud services. Cloud computing ensure that resources are offered quickly and easily. The issues involved in cloud computing should be properly addressed and a comprehensive plan, in view of the requirement, services offered, utility etc., should be designed before going for it.

In cloud computing library store its data in cloud. The cloud servers are managed by cloud service provider or third party. We do not have our own server to store the data. As we know that with passing of time the size of data grow. Hence space required to store them in cloud server would be more. With larger space requirement the cost will also go up. While availing the cloud services in the beginning many service providers/distributors make very lucrative offer. Usually the library accepts it without analyzing the future needs. But with passing of time when the size of data grows, the cost of cloud services also grow. Hence the overall saving on the expenditure of our in house infrastructure vanishes. Hence a library should choose a cloud service provider very carefully.

Wireless Network Technology
Though there are a lot of developments in wireless network technology, a brief outline of some of recent developments in wireless, mobile, internet and web technologies are listed below.
a) Bluetooth
b) 3G
c) GPRS
d) VoIP
e) Semantic Web
f) Wi-fi

Mobile Phone Services
The Library Can inform through a single SMS on his/her users' mobile phones about any new activities. With dawn of ICT, libraries may have started exploring the feasibility of its products and services. These would support library-to-user, user-to-library and user-to-user through online interactions. It made possible by Global System for Mobile Communication (GSM).

Electronic Security Systems
a) Biometrics
b) Electromagnetic (EM)
c) CCTV
d) RFID

II. Conclusion
The modern libraries are using ICT based tools and services for enhancement of their services such as library automation, digital achieves, library 2.0 and mobile phones etc. The use of these technologies is differ in different libraries considering the scope, objectives and funds available and it has some distinguished qualities in every stage of development. There is a symbiotic relationship between the library and ICT, such that any development in ICT accelerates the development of library. In the same vein, any development in the library today can only be through development of ICT. In this modern ear, libraries are totally dependent on ICT based tools and services to fulfil the 'HI-TECH' users need.

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