



Emerging & Innovative Technology Applications in Libraries and Information Centres

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Abstract:

Modern technologies have significantly changed libraries. Libraries are becoming virtual libraries and have been automated. Professional librarians in libraries use different systems to handle information. The use of computerized library catalogs such as the On-line Public Access Catalog (OPAC) has enabled easy access to collections. Customers can easily access digital information thanks to cloud computing and search capabilities. By reducing the cost of the entire processor and enabling tight and efficient connections with all institutions, cloud computing can improve the execution of digital library projects. Through various implementation approaches, cloud computing offers real-time access to utilities and requires users to pay only for what they actually use. Emerging Technologies identify, evaluate, and implement applications of current and emerging technologies for use in libraries and information centres and services. This paper examines how technological innovation has led to improvements in information centerst and library services. The overall purpose is to share resources using new technologies with affordable devices that would provide a range of features to save time, support community development and provide better services to library users.

Keywords: Information and Communication Technology, cloud computing, Big Data, AI

Introduction:

The age of information and communication technologies is now. The use of information technology in library science is crucial. The use of IT applications has created various difficulties for the library industry. As a result of the development of IT, libraries have been automated, which is a fundamental condition for advancement after the network and more focus is being placed on virtual libraries. Library services are expanding as a result of new trends in digital libraries, e-publications, Internet usage, web applications for libraries, and growing consortia techniques. The most recent technological development in library science is the use of cloud computing for diverse tasks.

Emerging & innovative technology trends in libraries:

Every day new technological innovations are happening around the world. Due to technological changes, the biggest challenge is in the area of the environment. Libraries must embrace technological innovation to meet the demand of patrons in terms of providing effective and efficient library services, key libraries in today's digital world, keeping in mind the changing information needs of library users.

Semantic Web and Libraries:

The Semantic Web is the web of connections between different forms of data that allow a machine to do something it wasn't able to do directly. The aim of the Semantic Web is to make web data machine-readable. The Semantic Web brings structure to the meaningful content of web pages and creates an environment where software agents move from page to page. The Semantic Web is a network of data. This data may include dates, names, part numbers, chemical properties and other returnable data. Recently, the development of information and communication technologies has led to the emergence of a wide range of library resources and services - digital libraries, blogs, weblogs, Library 2.0 services and organizational archives. Thanks to this development, we are able to restore accurate and fast information to users. Websites and web services are very important in libraries. Semantic websites are gaining a lot of popularity in the digital environment today.

Cloud computing and Libraries:

Cloud computing can change the way systems are built and services are provided, giving libraries the opportunity to expand their impact. Libraries are modifying their services using the cloud and networks that allow them to access these services anytime, anywhere. Cloud computing offers libraries a number of interesting options that can help reduce technical costs and increase the reliability and efficiency of certain types of automation operations. Libraries have great potential for cloud computing. Libraries can add more content to cloud computing. Cloud computing technology is not fully accepted in the Indian Libraries but they are trying to develop themselves in this area. Libraries are trying to provide users cloud based services but in real fact they are not fully successful owing to the lack of good service providers and technical skills of LIS professionals in the field of library information centers using advanced technology. OCLC services and Google based cloud services are good examples of successful cloud in libraries is in development phase.

Big Data and Libraries:

Libraries now offer online resources and services. Social media libraries use Facebook Instagram to promote their services and programs. With the help of evolving technologies and tools, librarians can collect more and more online data and analyze it to add value to their services. Libraries can use big data to make good decisions about archiving development, updating public spaces and using library facilities. The development of electronic library systems and OCLC WorldCat is known as the initial application of big data in libraries. Large data libraries are directly and indirectly affected. Libraries have a direct impact on the use of big data tools to research large data sets. An indirect result is through library users who use large amounts of big data in their research.

Artificial Intelligence and Libraries:

Artificial intelligence has become one of the main driving forces for the development of modern society, which has injected new energy into the development of smart libraries. This article explains the basic premise of smart library and artificial intelligence and artificial intelligence in smart library and shows the application value of artificial intelligence in library service. Artificial intelligence widely used in intelligent development libraries.

Internet of Things (IoT) and Libraries:

Libraries must adopt IT-enabled content Development, content management tools, content access, delivery tools or longer Term presentation tools. Adoption and libraries are always at the forefront the use of new technologies is a cause for concern. Enables Internet of Things (IoT) objects Use to collect data and transfer data through the network without human intervention Internet, sensors, RFID. It is used in various fields and is still evolving. Various

innovative solutions are being created. This paper explores the concept of IoT Historical background and its potential applications in libraries.

Block chain Technology & Libraries:

Block chain technology represents a decentralized database that keeps records of pseudonymized digital transactions that are visible to anyone within the network. Therefore, it is a modern way to collect and store data. Block chain technology could be used to build an enhanced metadata system for libraries, to keep track of digital-first sale rights and ownership, to connect networks of libraries and information centers, or even to support community-based borrowing and skill sharing programs.

QR Codes

Quick Response (QR) code is another contribution of ICT. Camera equipped phone can be used to scan the QR code displayed by any the library. Users can simply the scan the QR code to know about the library working hours, resources available in the particular library by suing the applications such as BeeTagg or RedLaser.

Social Media and Mobile Applications

Social media is about communication and shaving through online communication channels. In another Social media is computer meditation that allows users to create content and interact with each other. Others. The first major purpose of social media is connectivity and the main purpose of social media that means you update yourself from the latest events in the world. Especially in the field of education Environment a note or update from a company can reach millions of users in seconds. And now Not only sound education but his alertness and dedication too are most required. Mobile application survival is a must Academic professionals to access information and resources. Now a days libraries attract students uploading a panoramic view of the library infrastructure.

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Conclusion

As emerging technologies appear on the horizon of education every day, their adoption and integration into libraries is constantly changing the world of teaching and research. This study makes it clear that it will have a greater impact not only on technologies the area of libraries and other places in the world. It shows the conversion of libraries from this traditionally computer-generated technologies.

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