



Original Article

Smart Library and Smart Services in Academic Libraries in India

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Modern libraries promote availability of useful mobile information resources offered by the library, and availability of access to information from mobile devices in a field, to support research. They deliver services to users via Internet, smart phones and other handheld gadgets. Modern libraries have to focus on innovations for both traditional and nontraditional library services to reach all library users through mobile devices. Internet has become an important Component of library service for users in it. This paper observes new services and programs aimed at providing better information services for academic library users. The term "smart" means "flexible, adaptive, extendible, acknowledging and human". Smart library is a hardware and software complex with a wide range of opportunities for searching and providing necessary information to virtual users according to their inquiries.

Keywords: - Modern Library, Smart Library, Smart Library Concept Smart services

Introduction: -

A smart library can be conceptualized either electronically or physically. A smart library does not have a single physical loan item on the shelves, no books in print, and on shelves, instead, it relies on enormous cooling servers, whirring digital archives, and equipment for duplicating and distribution. Base on this concept, a smart library is a transportable library that can transcend space constraints and be seen by people. Smart library can also be referred to as a library fitted with technology and is available to the public but is not staffed. The technology allows for remote management of library facilities, such as automated doors, lighting, self-service kiosks, and public computers. This allows us to considerably expand library hours, allowing more individuals to utilize the library when convenient for them. In addition, the library may achieve transparent user service management, mine users' functional information demands, and intelligently forecast user customized service trends by adequately combining the value density of library management, scientific services, and librarian decision-making.

Concept of Smart Library

Smart is a network enabling free access to all libraries. The term Smart Library appears in various contexts as a synonym for the concept of an Intellectual library, digital or virtual library. Smart library is nothing library s but just a library solution in a digital way. It is also a very sophisticated true multimedia streaming and digital delivery solution through a device and browser agnostic. The concept of smart library is to serve all library services faster, better and smartly to its end users through digital technology in different software applications with the help of Internet and Intranet. The author expresses here that Smart Library is library which is techno-drive with artificial intelligence and Internet of things-based service provider to smart readers.



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The smart library creates:

- Creating of smart environment, mobile access and new knowledge creation.
- Active content, adaptively and smart technology of content formation.
- Smart detection of knowledge, smart interface
- Smart services

Importance of Smart Library

The role of librarians and libraries is changing because of the changing demands of its users. Nowadays, users expect much more from the libraries particularly from the academic libraries. The indispensable thing which a smart library demands is smart librarian. Usually, a smart librarian provides service to user focused and user-friendly. Three things that are essential for performing the role of Smart Library: i) Smart Library staff, ii) Smart Library patrons and iii) Smart Library services. The benefits of Smart Library are mentioned below:

- (i) A smart library is quite advanced from the usual conventional workings;
- (ii) The advanced library system works with the newly evolved technology.;
- (iii) Promotes the use of the library and motivates users to access more to it;
- (iv) Provides wide range of opportunities for searching and presents specific information to virtual users as per their needs;
- (v) Smart Library enables remote control of the library building including self-service kiosk, RFID supported automatic controlling gates, public access computers;
- (vi) Smart Library serves the community people of the society through the record of human thinking, beliefs, notions and interpretations by making them available to all.
- (vii) SL system extends the library hours and
- (viii) This makes the users able to use library resources and services conforming to their ease and thus it supports to build a user-friendly environment.

Librarians Need to Be Smart

Smart librarians require new skills and need to keep themselves informed about the latest news or developments.

- Smart librarian needs to be a change agent
- Smart librarians should have acceptance to new ideas and their personal interest and friendly approach to user queries and satisfaction;
- ICT enhanced environment demands that smart librarians must have managerial skills, technical skills, IT skills;
- They should be an effective information professional;
- They should have skills of accepting challenges of today and tomorrow;
- A smart librarian should act as an information officer and knowledge manager;
- A smart librarian should work as a cybrarian who maintains a cybrary where he works with digital resources online.

Application of Smart Technologies in Academic Libraries

The cutting-edge technology is the basic foundation of smart library and can range from artificial intelligence, cloud deployment, Internet of Things (IoT), enhanced ICT environment, augmented reality, wearable technology, smart bookmarking apps, RFID support system, electronic resource management, overhead document scanner, robots in libraries. The technology enables smooth control of library routine activities and easy access of its resources including self-service kiosks, automatic doors, lighting, and user-interactive terminals. This allows us to prolong library visiting hours so as to more users can utilize the library resources at times that are convenient for them. One of the important advantages of making a library smart is to reduce maintenance overhead cost and save time. Apart this, use of newly emerged technologies enables paperless use and encourages to create productivity.

There are some applications of recent technologies for smart libraries which are mentioned below:

- Integrated Library Software (ILS): Koha, Evergreen, NewGenLib , Open Biblio, WEBOPAC
- D-Space, Greenstone, Drupal, Joomla, Wordpress
- Cloud computing, Application Programming Interface, E-Granthalaya 4.0, Greenstone, RFID
- Bibliographic reference tools: mendeley, EndNote, Reference Manager, Zotero
- Artificial Intelligence
- Information retrieval through AI
- Expert System
- Use of broadband internet connectivity

Smart Library Services

- E- Document Delivery Services (E-DDS), institutional portals
- Institutional Digital Repositories (IDR) and aggregator services
- RSS (Really Simple Syndication) for web feed formats allows one to receive updates from web sites, library databases and other online resources all in one location



- Open Access Publishing
- Metadata Standard and Interoperability (Dublin Core Metadata Initiative)
- Resource Discovery (smarter interactions and communications between different IoT artifacts) which enables libraries to explore seamlessly across a wide range of information content.
- Streaming Media Services (subscription based third party streaming services)
- Dataset linking and information mishaps (remixing of data from different sources to create new hybrid services such as combination, visualization and aggregation with the help of API)
- Ask a librarian/Virtual Reference Service/(virtual worlds, internet messaging, e-mails, web forms etc. and video podcasting (podcasting with a video element like static or motion graphic images)
- Library Web Home Page (promotional tool for advertising electronic web resources and in-house library services i.e. newsletter services)
- E-SDI & Bulletin Board Service

Conclusion: - The smart library is to make systematic development of the collections, store, and organize information and knowledge in digital form and provides easy and affordable access to it from various locations via internet. There are some big issues in relation to the development of a smart library such as immense cost of implementation, high maintenance cost, lack of tech-savvy librarians and information professionals, insufficient fund and inadequate digital infrastructure. It may be concluded that we should strive hard to build up a library smart to provide best services at the least cost within the existing infrastructures.

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