

**Visualizing Librarianship in the 21st Century: Connecting
Minds and Creating the Future**

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Re-Engineering of Library Services by using digital tools.

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Abstract: We are in the Electronic Information age, where improvements in technology are Re-engineering the global information industry. Technology is driving the information access and delivery crossing all the countries. As information changes its production, storage methods, access, formats, and much more. This paper discuss on Digital libraries new technology approaches are re-engineering by the libraries. Introduce various trends in re-engineering & Digital Library Like, Mouth to Mouth marketing, development of institutional repositories, open education sources, remote access, e-book, Wi-Fi, and much more.

Introduction

Re-engineering means rendering the services of library in a modern way with the help of technology. Traditional pattern of serving the facility to the users are least useful in this technological age, because library users need an information at any time, in a fraction of seconds on his/her place all these requirements are not possible in a traditional way therefor library profession modify these services, facility in modern looks with the help of Information and Communication Technology and satisfy our readers and users wherever he/she is it.

Re-engineering is a modern Management technique and it used in library service and resources management. Library and Library staff continuously observe and note the changing attitude of reader and hungriness about getting the information as Dr. S. R. Ranganathan says in his work "Five law of Library Science" that 'Right information to the Right user in a Right personal way at a Right Time.' Therefor today we need to change the strategy of library. We must use smart tools, internet and many more for understanding the todays need of user, challenges to implement to it.

Re-Engineering of Library: Meaning

The term Re-engineering was first introduced by Michal Hammer in Harvard Business review article in 1990. "Re-engineering work: Don't automate obliterate. "Re-engineering as defined by **Hammer and Comp.** (1993) is fundamental rethinking and redesigning of the process so as to achieve improvements in business performance in the form of quality service and speed. **Survade and Pasnur,** (2007) defined reengineering is necessary to rethink this issue with a hope for providing better service to the library users to fulfill their multidimensional needs of the present patrons.

As technology continuous to change, libraries and librarians have to use the changing technology to provide the best access and service to their patrons. Electronic information creates challenges for library community at its very foundation, moving it away from the traditional paper and print format to be a different world of circuits and connectivity. The library is no longer taken simply as a physical repository but it is becoming virtual.

Why we Re-engineering the library services.

1. Because of Information Explosion.
2. To satisfying the multidimensional need of user at any time, any place, in a least cost and time.
3. Marketing the library services and resources.
4. Minimize the library Paperwork.

Trends In Library Re-Engineering

1. WI-FI

The Wi-Fi facility is a technology that allows an electronic device to exchange data or connect to the internet on a wireless mode. Wi-Fi help them to accessing the information from open sources at any time with in the campus of the institution. Re-engineered libraries only need to provide sufficient ports in order to use the devices.

2. SCANNING

Every library holds something that no one else has. The rare materials, fragile manuscripts now are scanned and are preserved for future. This will help the library to maintain and preserve those resources. Keeping the collection of

scanned question papers, important classroom notes, it's become very common activity of modern libraries.

3. WEB-OPAC (WEB - ONLINE PUBLIC ACCESS CATALOGUE)

The Web OPAC is a Web portal to search the holding of a library. The OPAC is software used to manage the catalog of a Library. This helps to keep the of transitions of the book available in the library. This software is available in both modes i.e., Web-based or local host based. In this software there are many features which help librarian and library staff to keep records of available books as well as user's satisfaction.

4. E-BOOK AND E-JOURNALS

E-book and E-Journals are electronic version of printed books and journals that can be read by using an electronic device. They are more than just an alternative to the paper books and journals. Links from the e-book and e-journals to the dictionaries, thesauri, related images, research articles, photographs, audio-video segments are the best features of e-books and e-journals. The full text search capabilities of e-books and e-journals should be integrated into the WEB-OPAC.

5. OPEN ACCESS RESOURCES / DATABASE

This type of resources available on net free of cost and any one can access it from respected web address of resources. Library share the link of this resources on their web portal, webpage E-Resource's tab where user can go easily and search the information as he/she important. Library role is providing the as type of links to the users, and update it time to time for new weblinks available on virtual platform. (see annexure)

6. SOCIAL MEDIA - Apps

The Account creation of Facebook/ YouTube / twitter / Instagram /Blog/ What'sApp, and others related social media page for a library has become a need of the day. The best part a library can do is the linking of user's library account with their social media accounts. This will help them to know the latest happening of the libraries and similarly if library wants to deliver some public message it can be delivered directly to their social media account. This links are very good tools to inform users about arrival of his/her requested book.

The popularity of social media sites like Facebook, What'sApps, Telegram, Instagram, Flickr, Blogs, Twitter, can be used to promote library activities and making users curious about library happening. The use of social sites always remains crucial because of their security issue. Libraries can make use of these

sources to promote their conferences, seminars, workshop, any changes in the dates of events, addition of new resource etc. Using these social sites, the activities like library day celebration, book day, and best reader awards etc. Libraries are not only the reservoir of information but also the center for educational and learning resources.

7. RFID TECHNOLOGY.

RFID Technology that uses radio waves to automatically identify people or objects & perhaps other information or a microchip that is attached to an antenna. All the tags used in RFID technology for library are Passive power to read the tag come from the reader or exit sensor rather than battery with in the tag. These tags are placed in book and generally covered with a proper wave reflected back from the RFID tag into digital information that can then be passed RFID tag drawn power from the RFID tag.

Need of RFID in Library -

- Replacing the Barcode tags.
- Self-check in / check out.
- Anti-theft detection.
- Rectify the misplace document easily.

8. LIBRARY AUTOMATION WITH ANY SOFTWARE

Library should be automated in this environment, may be use paid version software or open access software. Through that library work is easy to maintaining the accessioning of books, Serial controls, Issue-Return of books Process fast, Stock verification are easy. Searching the available information in self-library in a fraction of seconds. Mainly keep the statistical data of library available on a fingertip. It helps to reduce the paper work of library and save the time of reader and library staff.

9. INSTITUTIONAL REPOSITORY

Institutional repository means manage, preserve and maintain the institutional digital assets, intellectual output and history of Institutions. Librarian are taking main role in planning and developing these repositories, fulfilling their roles as experts in collecting, describing, preserving and providing the documents and digital information. Many libraries are actively engaged in building institutional repositories of the college by uploading or scanning books, question papers, research articles, institutional information etc.

10. CLOUD COMPUTING

Cloud Computing is actually the latest way of a powerful combination of cloud computing, networking, storage, management solution and automation application. Cloud computer allows content creation to be made. By utilizing online applications, users can create and save their files online, share content, work collaboratively with others or create entire services that can all be accessed online without need of having the programs on their own computer. This will give users access to cloud services any time, on any device and any place.

11. LIBRARY WEB PORTAL

A Portal is a location on WWW usually containing a collection of hyperlinked document and files. A library portal has a Unique Resource Locator (URL) which normally but necessarily points to the entry page or home page for the library site. Academic library caters the need of information of their users. In the last decade library website has become the first point of contact. It has increasing important for libraries to evaluate the user portal to verify that the information being provided to their users is pertinent, clearly presented and internally consistent. It is important to see that the resources and services provided by library portal are well utilized by the academic community.

12. QR CODES

QR Code is a combination of lots of small squares, it is black and white that we regularly saw in tooth paste advertisement or for using pay and received money through online transactions. It can contain some useful information of products or some message for the consumer. As same technique uses in library for encoding the various types of information in QR Codes and share this code among the users. QR code can hold much more information than a regular barcode.

QR Code use in library –

- To give the QR of library Services and it links.
- Access web opac through scanning QR Codes no need to remember URL of web opac, library site.
- OPEN ACCESS RESOURCES link can be share through QR codes.
- Converting a document in QR Codes and send the user, no need to send huge storage capacity file only one QR code done your work easily it saves your time, internet data, money etc.

- Library can convert any information in to QR code and save it like, Questions Paper, Syllabus, Reports, Articles, Audio-Video and many more that library has.

13. M-SERVICE (Mobile Base Services)

A Mobile device is a portable and wireless computing device, that is small enough to be used while held in the hand. The mobile devices are reshaping students' everyday lives in diverse ways, especially by delivering content in versatile forms. The developments in mobile technology have led to the use of mobile devices for educational purposes and the development of the concept of using mobile learning (M-Learning). Mobile learning in simple words is defined as the use of portable devices equipped with internet facility in the learning process. M-Learning facilitates the students to learn, collaborate, and share their ideas with each other in short time using internet and technology. As a result, many educational researchers are exploring the potential for mobile technologies to enhance student learning, with mobile learning becoming one of the fastest growing areas within the field of ICTs in educational. If mobile technologies are to be effectively used for educational purpose, study and teaching, first and foremost question becomes how do we best use mobile technologies for teaching and learning? In addressing this, the first step is to find out how students are using mobile technologies to support their learning.

Mobile Device are now very popular among young generation, students and researchers. Therefor libraires things on that how to use this device for the better way to give library services to everyone those they & with this device. Through that device and with the help of social media and technology library create their App and through that app library provide mobile supported documents, videos, audios, graphs, etc to the users. Library also share their official mob no for on call service like books reservation, notices to students, new arrivals list etc. This is most useful tool for the library because in todays age no signal person without mobile and they have it 24*7 in their pocket, every home definitely has a mobile. Therefor library gives more tress to give mobile supported services.

14. M-OPAC: (Mobile Online Public Access Catalog for Libraries)

Today patrons are required to visit a library and use Catalogue available in library, ask the information to library staffand use OPAC terminal if available in library to search books availability. Very few libraries offer internet based OPAC because financial cranches. Students today expect immediate, personal, easy access to information regarding items available in library on their mobile devices. They want mobile access to library systems and more. To meet these demands, M-OPAC of

mobile enhancements specifically designed to meet the unique needs of Patrons/Students/Libraries. **M-OPAC is a smart phone-based Book Search APP** offers a low-cost cloud-based platform to all the libraries in the world to share book data. All library patrons worldwide get easy to use App for free book search. M-OPAC App offers a great new way to find books and prepares the library for future requirements today

M-OPAC App Benefits to Library

- Library across the world can upload & upgrade book database on M-OPAC cloud.
- Through ILL Library patrons can search book details from one or many libraries database using smart phone app according to the title, author, publisher, keyword, subject, etc.
- A common platform for Library community to share knowledge & ideas
- Low-cost instant implementation.
- No investment required in server, high speed net & networking.
- Easy to implement & no training required.
- Instant Implementation and Popularity – once you upload library data in M-OPAC cloud; all the patrons in the world get immediate access.
- Free additional Internet based OPAC.
- Non computerized library can also be a part of M-OPAC.
- Useful for any type and size of library - Useful for college, university, school, public,
- government, private and autonomous libraries.
- Cloud based; No maintenance required.
- On-line free support to libraries.
- Reservation (Claims) & Inter Library loan facility for your patrons.

Conclusions

Reengineering its space must be flexible to accommodate evolving information technological changes and their usage. The early search engines developers did their homework in reading the research literature on information retrieval. The

library turns to learn and make modern library. Digitization is the library future and future remain irreplaceable. Reengineering is the best option to user's satisfaction and new facility develop to attract the library users.

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