

**A JOURNEY TO BE CONTINUED WITH WEB-BASED LIBRARY SERVICES****Irfan Shaikh\* Sujit W. Jagtap\*\*****\* Student,**

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**QR Code****Introduction**

Acquisition, preservation and effective retrieval are the key functions of any library. Advancements in ICT and its penetration in library services resulted into paradigm shift. Easy availability of various forms of electronic information boosts up the use of information. It is noticed that information stored and retrieves from CD ROM, World Wide Web, internet and interactive multimedia are intensively used. Due to internet and web technologies, the way of storage and retrieval of information is changed. At the same time demands and expectations of users have also get changed. Each and every sectors of service are adopting

the internet and websites to meet with their clientele requirements. The banking sector is the best example of this type of service. We have never thought of banking services at our fingertips or at our ease. Airlines booking, railways, hotel and bus services, medical facilities, local commuting (OLA and Uber), consultancies and counseling with experts are also available online/ with the help of internet. Our day-to-day life becomes more convenient, comfortable, prompt and needs oriented. Library and Information Service Sector are also influenced by the internet and web-based services. To render effective library services in the 21st century; each and every library and library professionals have to adopt the internet

for quick and better services. Open access, free and subscribed online resources make easy access to information. Librarians and their users are constantly bombarded with a wide range of information choices that must be evaluated for authenticity and accuracy. New media and technologies are like tributaries leading to this great body of knowledge. Providing required information to users with a combination of personalised services in a timely manner, librarians reaffirm their centrality as a twenty-first-century public institution with par excellence. According to Yochai Benkler; today we are in the middle age of Information Society where technological, economic and organisational transformation allows us to negotiate the term of freedom, justice and productivity. In his book "The World is flat" Thomas Friedman narrated a brief history of the 21st century with below-mentioned characteristics:

1. One or another way people are networked.
2. In this world, there is seamless connection between people, resources and knowledge.
3. Contents are digitized.
4. The global platform for collaboration.
5. Things and services are managed by outsourcing.

## Reference Services

### 5Rs

Library professionals should follow Dr.Rangnathan's philosophy of reference service. According to Dr.S. R. Rangnathan, "Reference service is establishing of contact between reader and book by personal service. Right contact means contact between the Right reader and the Right book at the Right time in the Right personal way." In this statement Dr.Ranganathan used 4 Rs to justify the reference service. After conducting some study I tried to add one more R to this list and now the statement can be written like "Right information to Right user, in Right time, in Right form at Reasonable cost."

### Information Services

Perhaps the most important point to remember is that reference service seeks to fulfill the greater mission of the library by helping individual users. Despite the transformations that have been wrought on reference work by both developments of our information society and paradigm shifts in the self-understanding of the library, much has remained the same. First and foremost, it is still a service in which the librarian interacts with a patron on one-to-one bases. This level of personal service has become more important in the 21st century in light of the alienating and depersonalizing effects of many information technologies. Information

service in the most general sense is the process of assisting library users to identify sources of information in response to a particular question, interest, assignment or problem. Information service's prime function is to help users to find out required information independently.

### Web 3.0

According to Jeff Bezos, "Web 1.0 was making the internet for people, and Web 2.0 is making the internet better for computers". Web 2.0 is a convenient label upon which to hang a range of concepts. There is much of value with which libraries should be seeking to engage. Web 2.0 - both evolution and revolution. Web 2.0 is known as a revolution in the use of web technologies, which results in paradigm shift from the web as publishing medium. In the same way, Library 2.0 is "the application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections". In some ways it is a virtual reality for libraries and a Web manifestation of the library as place. It is a user- centered virtual community. Users participate in the creation of the content and services they view within the library's web- presence, OPAC, etc. The consumption and creation of content is dynamic, and thus the roles of librarian and user are not always clear. It is socially rich. The library's web- presence includes users' presences. There are

both synchronous (e.g. IM) and asynchronous (e.g. wikis) ways for users to communicate with one another and with librarians. Library 2.0 is communally innovative. This is perhaps the single most important aspect of Library 2.0. It rests on the foundation of libraries as a community service, but understands that as communities change, libraries must not only change with them, and they must allow users to change the library. It seeks to continually change its services, to find new ways to allow communities, not just individuals to seek, find, and utilize information. In some sense Social networks are Library 2.0. The face of the library's web- presence are very much look like a social network interface. For example Library Thing. (<http://www.librarything.com/>) It enables users to catalog their books and view what other users share those books. The implications of this site on how librarians recommend reading to users are apparent. Library Thing enables users, thousands of them potentially, to recommend books to one another simply by viewing one another's collections. It also enables them to communicate asynchronously, blog, and "tag" their books. For example : The Library of Congress's Subject Heading "cookery," which no English speaker would use when referring to "cookbooks," illustrates the problem of standardized classification. Tagging would turn the useless "cookery" to the useful

"cookbooks" instantaneously, and lateral searching would be greatly facilitated.

The World Wide Web is more used for application to application communication. The programmatic interfaces made available are referred to as Web Services. The semantic wave embraces three stages of internet growth. The first stage, web 1.0, was about connecting information and getting on the net. Web 2.0 is about connecting people putting the 'I' in user interface, and the "we" into a web of social participation. The next stage, web 3.0 is about representing meanings, connecting knowledge, and putting them to work in ways that make our experience of internet more relevant, useful, and enjoyable.

O'Reilly (2011) considers web 3.0 the Web of feelings and collective intelligence; it is a global mind and network. Tasner (2010) explained use of web technologies with 5 must key for marketing point of view.

1. Microblogging
2. Customization / personalization
3. Mobility
4. On-demand collaboration
5. Virtual reality worlds

The phrase web 3.0 is coined by John Markoff in 2006. It refers to internet-based services that collectively comprised known as 'The Intelligent Web', people who are using the semantic web, microformats, natural language search, data mining, machine learning, cloud

computing and artificial technologies which are machine-facilitated understanding of information with a view to providing an intuitive user experience.

### Features of Web 3.0

- Convergence of the virtual and physical world
- Access to information anywhere, anytime
- Mainly driven by the heavy use of smartphones and cloud applications
- It is 3D simulations, augmented reality, human-constructed semantic standards and pervasive broadband, wireless and sensors based
- It is a portable and personal web
- Focused on the individuals
- Consolidating dynamic content
- Available with widgets, drag and drop Mashups
- It is based on user behaviour
- It charged by user's engagement
- Examples are iGoogle, Net Vibes
- One can read, write and execute Web
- It keeps people immersion
- Trillions of users (1000 000 000 000)
- It engages the whole body including the brain
- Professionals built applications that other people can interact with companies and builds platforms that let users publish services by leveraging the association between people or special content (i.e. FaceBook, Google Maps, My Yahoo, All types of Apps.)

## Application of Web-based services

Web-based services allow us to use artificial intelligence based applications in library services. The connecting speed of internet, the use of modular web applications, advancements in computer graphics played a key role in providing web- based services. Some of them are:

1. Personal desktop and web space: Use of bookmarks and tagging contents allows users to browse the internet independently. By creating Gmail account; users are enabled to get 5GB Google Drive space for personal storage which can be used and access from anywhere anytime in absence of the personal computers where the information is stored.
2. Remote Control: By using TeamViewer one can control his/her PC from distance about more than 1000 miles.
3. Mobile web: Availing internet facilities on mobile phones.

## Information services - some examples

**1.Real World Web:** establishing a connection between the Web and the real world through sophisticated mobile phones. GPS can be used to locate documents in the library by using Smartphone. QR Code (Quick Response Code) for print and non-print documents e.g. Bath University Library in the UK has incorporated QR Codes into its library catalogue; which enables users to save author, title and location of the item onto their mobile phone. The

library has included a link of the MP3 audio tour of the library floor plan in QR Code.

**2.Ontologies:** Librarian can adopt various ontological techniques to define the web contents in more professional as well as personal way. With these techniques the user can be made aware of how information is organised on the web rather than how information can be organised. Over a period of time, this will replace Classification systems from the library.

**3.Metadata:** Today we all know it is a Data about Data. For the description of web resources, Metadata schemas are available for various kinds of digital resources, like Content dependent and contents independents, Direct content based, Content descriptive, Domain independent and Domain-specific metadata. OPAC, Web OPAC and Portal are some of the examples.

**4.Ubiquitous contents:** users can store and maintain their frequently used information for their future use. This will also help the librarian to serve users in a better-personalised way as well. Ubiquitous contents are the personal contents of the users persistently stored on the web in the form of Movies, Blog posts, RSS Feeds, Wikies, Stories, Articles, Music, Games etc. which can be used anytime, anywhere while using the internet.

**5.Search and Browsing services:** On the internet this service is used to know the user's interests expressed in the Social Semantic

Collaborative Filtering (SSCF) profile. The ranking values associated with SSCF categories and use to propagate to the resources bookmarked and to person, thesauri and keyword concepts as well. This is somewhat traditional SDI services.

**6. Geo-Tagging:** Among various media or digital contents like images, photographs, videos, websites, RSS Feeds; Geo-Tagging helps users to find and locate the resources. GPS facilities on Smartphone can enable users to add metadata of that particular media where exactly it was created. This will help easy and quick retrieval of particular information of his/her interests.

**7. Social Bookmarking:** In traditional practice, while browsing the digital library; users noticed some articles - items to be more valuable and they bookmarked it. By using the del.icio.us collaborative bookmarking user can know his/her as well as their friend's bookmarks also. This helps them to use the information collectively by each other.

**8. Ask-A-Librarian,** Virtual Library Tour, Real-Time Reference Service, Bulletin Boards, Webinars, Web-based user education/awareness, Discussion Forms, Knowledge Gateway is some of the effective web-based services in current practice.

### **Ethical Awareness**

Today society is experiencing web-based library services widely spread and also become

more and more sophisticated as the web becomes commonplace all over the world. By providing web-based library services librarians are actively participating in the transformation process of information services. The ultimate goal of all librarians is to provide service by serving and teaching users to find, evaluate and use information effectively. Librarians should get ready to hold the hands of users who are switching over to new communication system from face to face human contact to human-machine interaction, from paper to electronic delivery, from text centred mode to multimedia and from physical presence to virtual presence.

The librarian should adhere to high ethical practice by following ethical standards. Library Professionals should practice to the Professional Code of Ethics as follows:

1. The librarian should provide the highest level of accurate, unbiased and courteous services to all library users.
2. The librarian should follow principles of intellectual freedom and resistance to all efforts to censor library resources.
3. The librarian should protect the user's rights to privacy and confidentiality in requesting and using resources.
4. Reference librarians must be particularly cognizant of professional obligations.
5. Librarians should respect and recognize intellectual property rights. Also able to

understand the provision of 'Fair Use'. By following this; the librarian can help in protecting the institution, its employees and its users from claims of copyright infringement and intellectual dishonesty.

6. All library professional should behave respectfully with each other and should create a healthy environment.
7. All employees of the library should keep themselves away from malpractices. They are cautioned not to put private interest ahead of library interest. They should believe in 'Service before self'.
8. Reference librarians and all other library professionals should put their personal convictions or beliefs aside and simply promote activities which are of library interest.
9. Library professionals should engage themselves in lifelong learning. Should focus on the continuous growth of their knowledge and skills. In the interest of professional developments, they should help and assist new entrants.
10. Library professional should practice looking approachable. One can easily approach the officer on duty in an informal way with any hesitation.
11. LIS professionals should practice active listening skills.
12. Should possess all-around knowledge of reference and information sources, their availability and accessibility on the internet

as well. Should also try to keep updated.

13. LIS professionals should develop a good questioning skill to understand user's requirements clearly.

14. Practice the follow-up questions and closing of the interview techniques. Both are essential in making sure the question is answered and making comfortable for the users to return again.

### **Conclusion**

Study shows that it has been proven in all situations to be an important key to successfully answering the users' questions. It is also important in ensuring that the user feels that the librarian is the ultimate source of information and also feels that the librarian has tried his/her best to answer the arise queries. It is interesting that user values the behaviour of the librarian more than the answer. New York Public Library listed as one of its performance expectations, a knowledge of the library as a 'Location where new and emerging information technologies and resources are combined with traditional sources of knowledge in a user-focused, service-rich environment that supports today's social and educational patterns of learning, teaching and research'. Nowadays the Internet is considered the most important source of information. A generation ago, people had fewer options for getting the required information, they could ask a friend, look something, contact a library, and maybe a few other possibilities to get information.

Today, it is an on-demand world. Music files can be downloaded, TiVo can record and store television programme to be viewed at leisure, pay-per-view services now allow movies to begin at any time. The information world that most people live in is far more featured and complex than ever before. With substantially more sources, more time, from almost anywhere, without a doubt, reference services should be designed to operate in such kind of world. Today library is a blend of conventional and virtual Information; hence the user has a larger information base available to satisfy his need for knowledge and information. The services should be designed taking into account of user's need. Consulting libraries for getting any kind of information is not a first natural choice but should be the ultimate choice.

To conclude; I would like to quote Jurewicz and Cutler's words, "In the library selection and implementation of technology can be compared to library furniture. One can look for furniture that is multifunctional. It must be a good investment and enhance the invitation to the customers to feel welcome. Its appearance makes a statement about the library's purpose and services". (Jurewicz and Cutler, 2009) so think of technology to decor your library and make it inviting place of new ideas. Let users use library facilities at ease and 24 x 7. Michael

Gorman said "Honour the past and create the future"; to me, it is like "In line with the past, online with the future". Human mind and umbrella can only work when they are opened. Be open-minded and use your mind to create and cater better services to your users.

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