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Designing a Conceptual Framework for Library 2.0 Services

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Abstract: Based on the library services offered through Web 2.0 tools by the institutes of national importance i.e. IIT's, NIT's and IISc/IISER Libraries in India, a framework for Library 2.0 services was prepared and presented in this section of the thesis.

This study is an attempt to raise the level of debate and effectiveness in styles and methodology for providing Library 2.0 services with the help of web 2.0 tools. The principle followed here is both to learn from other people's experiences i.e. the way IIT's, NIT's and IISc/IISER Libraries in India provided Library 2.0 services and the concepts proposed by various systematic studies, which may helpful to guide and to build Library 2.0 services..

Keyword: Web 2.0 Blog, Twitter, RSS, Instant Messaging, Podcast, Wikis, Multimedia sharing, Social Bookmarking, Social Networking.

I. Introduction

In a broad sense a conceptual framework can be seen as an attempt to define the nature and purpose of a process in this study it pertains to the development of a Library 2.0 services. A conceptual framework for Library 2.0 services must consider the theoretical and conceptual issues surrounding the LIS 2.0 services and from a coherent consistent foundation that will underpin the development of LIS 2.0 services standards. It is not surprising that early writings on this subjects where mainly from the academics. Conceptual frameworks can apply to many disciplines, but where specifically related to LIS, a conceptual framework can be seen as a statement of generally accepted LIS principles that form a frame of reference for conducting as well as evaluating existing practices and development of new ones objectives. As a purpose of Library and Information Science is to provide useful information quickly to the users, a conceptual framework will form a theoretical basis for determining how to provide Library 2.0 services in the library for the users. Framework is important because they provide Roadmap for

- Learning from a well-articulated set of concepts that can change the way we approach the services in Library.
- Give the big pictures ideas (the concept) up front, and then fit in the smaller facts and details.
- Provide the context for the users as well as the library authority.

The framework development often sounds simple in theory, but in reality it is not. It requires a certain amount of efforts and foresight on the part of the frame developer. In view of this the comprehensive study of applications of Web 2.0 tools and rendered Library 2.0 services and the related published literature, a detailed framework for possible use in different types of Libraries (specifically in special library) was developed, which is presented hereunder. The important aspects identified on the basis of study of Web 2.0 tools and services presently available in IIT's, NIT's and IISc/IISER Libraries in India

II. Web 2.0 Tools in Library

The way that internet has revolutionized every facet of our profession and personal lives the last two decades is not any more news to anyone. Today's news is a revolution driven by people all over the world and is considered to be the biggest shift since the industrial revolution. This revolution is mainly enabled by social media (people driven) within the context of an evolved internet version known as Web 2.0 or interactive web, websites and web applications that support multi-directional collaboration. Collaborative internet (Web 2.0) revolutionized the interest of users towards it and increased the amount of shared idea and information. Researchers, being internet users are evolving along with the web and hence they are increasingly seeking bilateral collaboration and interaction with scientific publication authors and other researcher. Triggered by this, with this research we are aiming to cover this gap and create a consensus that will pave the way towards Web 2.0 services provided in the Library. The framework is of qualitative nature rather than quantitative. Its results and deliverables are mainly based on literature review and combination of best practices. In other words it is a

synthesis of existing studies and research that are used and combined with the web 2.0 trend in order to produce the desired results.

Web 2.0 concepts often result in a conflict between co-operation and control; however, developing the Libraries with Web 2.0 will facilitate more users centered design for its effective implementation. The following are the several technologies, services and applications of Web 2.0 which are very useful to adopt in design of Library 2.0 services is more user-centered.

➤ **Rich User's Interaction**

The powerful features of web 2.0 its Rich Users Interactions. Asynchronous JAVA script and XML is one of the key components of Web 2.0, which facilities to develop rich user interactive web application. Library must provide effective and interactive user interface. Hence developing the user interfaces of library systems with Web 2.0 technologies would definitely increase its usability.

➤ **Blogs and Wikis**

Blogs and wikis are Web 2.0 applications, which facilities the users to share their ideas, knowledge. A wiki is a way of constructing knowledge; a blog is a way of distributing news. Ultimately, blogs and wikis have been used as support for collaborative work.

- Wiki are useful into support collaborative work substitute documents. To distribute information to users in order to facilitate the updating of materials.
- Blogs provide an easy ways to produced dynamic learning environment even through without basis knowledge of webpages constructions. It is useful as an alternative digital portfolio or as a learning log and for collaborative work on the web.

➤ **RSS feeds**

It is the family of formats that allow users to find out about updates without actuals having to go and visit the relevant sites. RSS makes it possible to spread information, replacing traditional emailing lists and reducing mails over load; it also allows users to read all its news in one place. Building the libraries by integrating RSS feeds, user can get up-to-date information on particular interested topic at his homepages without navigating or searching in the system.

• **Multimedia Sharing**

Web 2.0 technologies provide better access and sharing mechanisms for multimedia information. Podcasting is one among them which provides a different way to share the audio visual material. Video on-line is another which facilitates the better video delivery to the user in online. By using there technologies and services library can disseminate multimedia information to its user in a better way.⁶

• **Social Networking**

Web 2.0 is collaborative and interactive. Social networking services enable users to share information within a network of colleagues through user profiles, linking users to others posting similar information. A social network thus can be formalized into a net structure comprising nodes and edges. Libraries will build network among the interested group in discussing the common interest.

• **Bookmarking**

This system allows users to create list of bookmarks or favorites, to store them centrally on a remote service, and to share them with other users of the system. By enabling this feature in libraries user can create and share a set of resources with other users.

• **Tagging**

A tag is a key word that is added to a digital object to describe it, but as part of a formal classification system. The concept of tagging has been evidenced for beyond website bookmarking and services like flicker (photos), YouTube (video) and audio (podcast) allow a variety of digital artifacts to be socially tagged. By enabling this feature into libraries will facilitates the efficient lateral searching. Enabling web 2.0 functionality for libraries would certainly evolve as more user centric with improved interactions and services.

III. Library 2.0 objectives

- Define simple frameworks for library 2.0 services
- Identify interest, services, standards, barriers and mainstream plants
- Make recommendation with reference to user expectations, professional practice, technical challenges
- Baseline adoption so libraries can benchmark

IV. Library 2.0

It is a spine of the Web 2.0 concept. Scholars posit that is the application of interactive, collaborate and multi-media web based technologies to library services and collections. The group of scholars identifies the following as the principle of library 2.0:

- The library is everywhere
- The library has no barriers
- The libraries invites participation and

- The library uses flexible best of breed system

Library 2.0 is a commitment to access, improve, integrate and communicate library services using the newest information technology and the tried and true “human technologies”. There is a great synchronicity between librarianship and Web 2.0 through the “read /write” feature enabling library users to have greater control over the services they are offered by the Libraries.

V. Framework for Implementing Library 2.0 ⁵

- As we know the traditional library today. Augmenting traditional libraries by adding search engine, online databases, email referencing, etc.
- Scanning the horizons for new technologies and techniques usable in the library;
- Customer participation
- Community creation and engagement.
- It is user centered
- It provides a multimedia experience
- It is socially rich
- It is community innovative

VI. Conceptual Framework for Library 2.0 Services

While developing the framework for Library 2.0 Services we have to keep in mind the following four things:

- Technology Used for Web 2.0
- Objectives of providing Library 2.0 services
- Updating and Maintenance of Services
- Evaluation and Feedback mechanism

The detail about the above four things as shown in Fig. No. 1.

Fig. No. 1 Conceptual Framework for Library 2.0

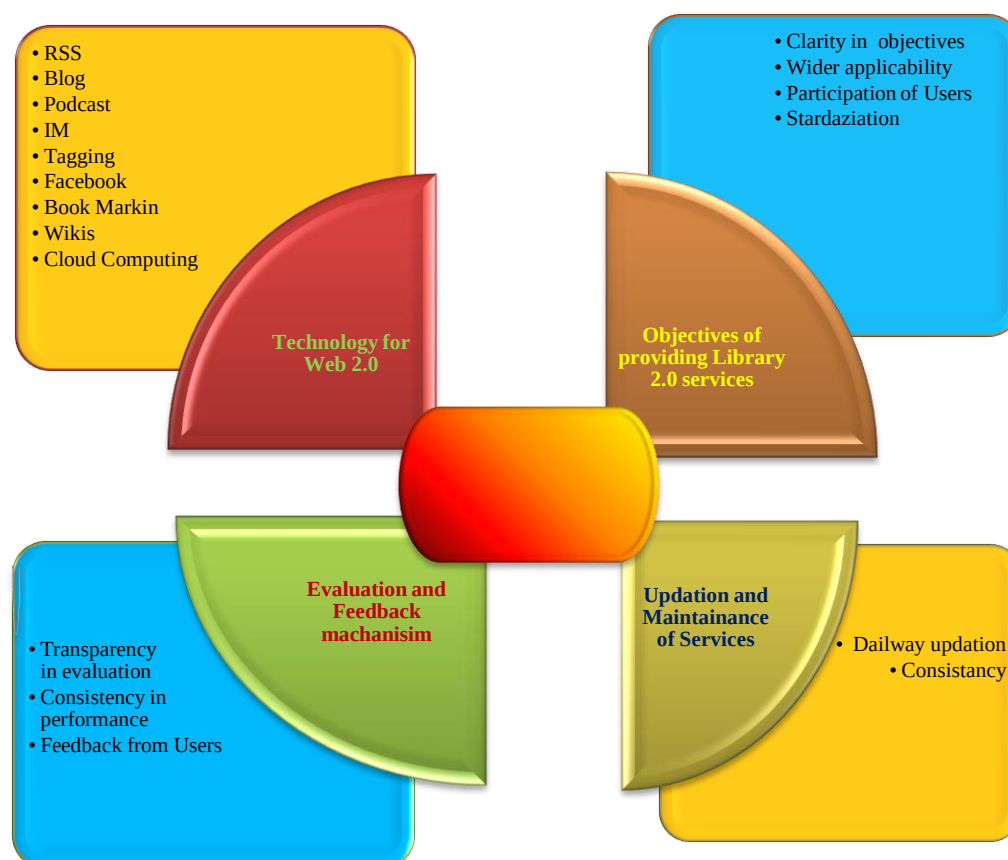


Fig. No. 2 Web 2.0 Tools



Fig. No. 2 shows the Web 2.0 Tools. The tools can be categorized in various broad headings like under social networking also includes various tools like twitter, blog, Facebook etc. and under Multimedia sharing tools like Podcast, Vodcast and YouTube etc.

Fig. No.3 Features of Web 2.0 Tools



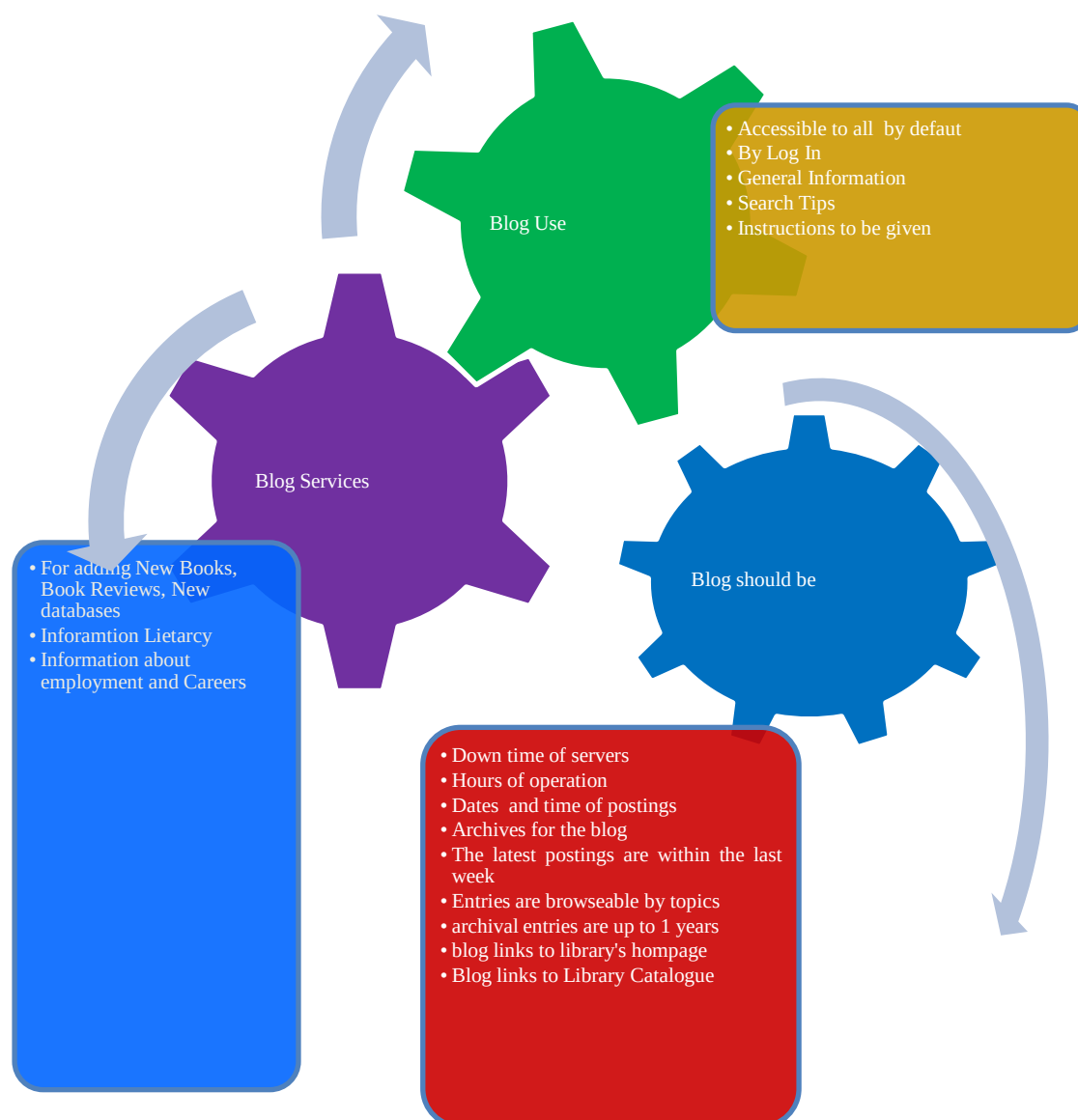
(Source:1024x768- en.wikipedia.org)

Fig. No. 3 shows the various features of Web 2.0 Tools like remixability, web standards, economy, accessibility, designing, convergence, mobility, participation and simplicity etc.

VII. Application of Web 2.0 tools for Providing Library 2.0 Services

Blog: Fig. No.4 shows the Application of Weblog in providing Library 2.0 Services. Weblog can be used for adding New Books, Book Reviews, and New databases. It can be used for giving Information Literacy Programmes in the library for users. It can be used for giving information about employment and Careers guidance to the users. Blog use should be accessible to all by default or By Log In. General Information and instruction about how to use weblog and Search Tips should be given. Blog should have the facilities like Down time of servers, Hours of operation, Dates and time of postings, Archives for the blog, the latest postings are within the last week, entries are browse able by topics, archival entries are up to 1 years, blog links to library's homepage and Blog links to Library Catalogue.

Fig. No. 4 Application of Weblog in Library 2.0 Services



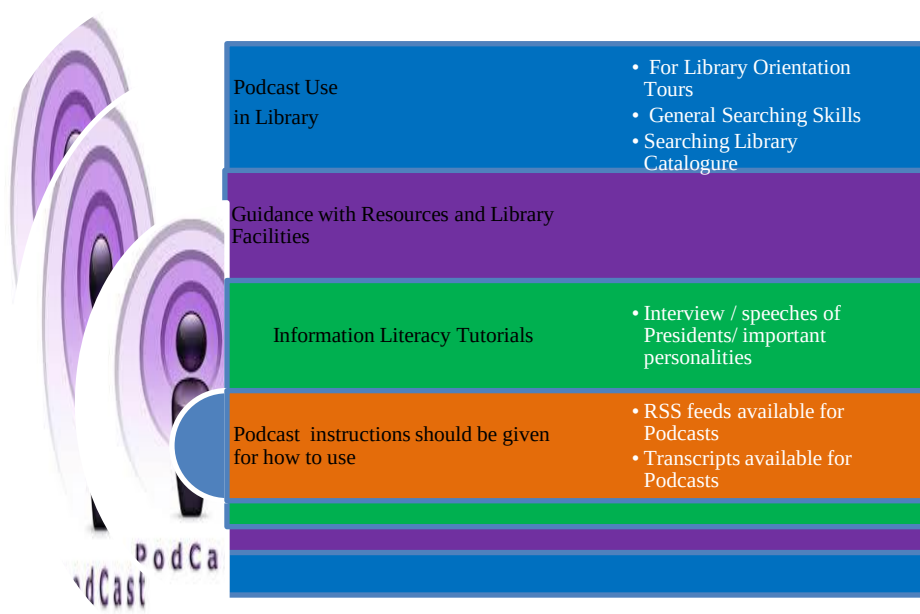
RSS: RSS can be used for publishing General news/University news, Library news and events, List of new books, List of e-journals, new databases, Announcements about workshops and exhibitions. It can be also used for additions to Institutional Repositories, Help for catalogue search and providing Library instructions to the users. Instructions should be given to use RSS. Links should be available to download RSS. News feeds in RSS can be categorised. RSS Items should be searchable for users.⁷

Fig. No. 5 Application of RSS in Library 2.0 Services



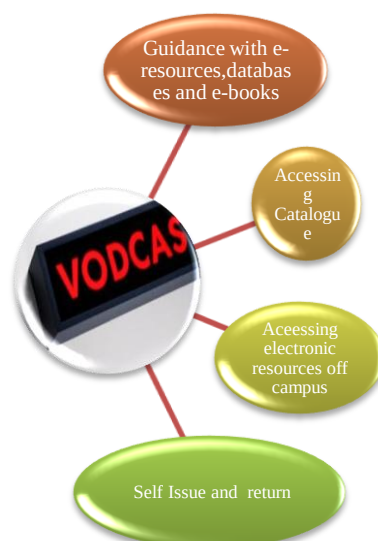
Podcast: Podcast can be used for Library orientation tours, General searching skills, Searching Library catalogues, giving guidance with resources and library facilities. It can be used for giving Information literacy tutorials even for listening Interviews/speeches of Presidents/important personalities. Instructions should be given on how to use podcasts. RSS feeds and Transcripts should be available for podcasts⁶

Fig. No. 6 Application of Podcast in Library 2.0 Services



Vodcast: It can be used to provide guidance with e- resources-databases and e- books, accessing catalogue , accessing electronic resources from off campus and self issue and return of books.⁷

Fig. No. 7 Application of Vodcast in Library 2.0 Services



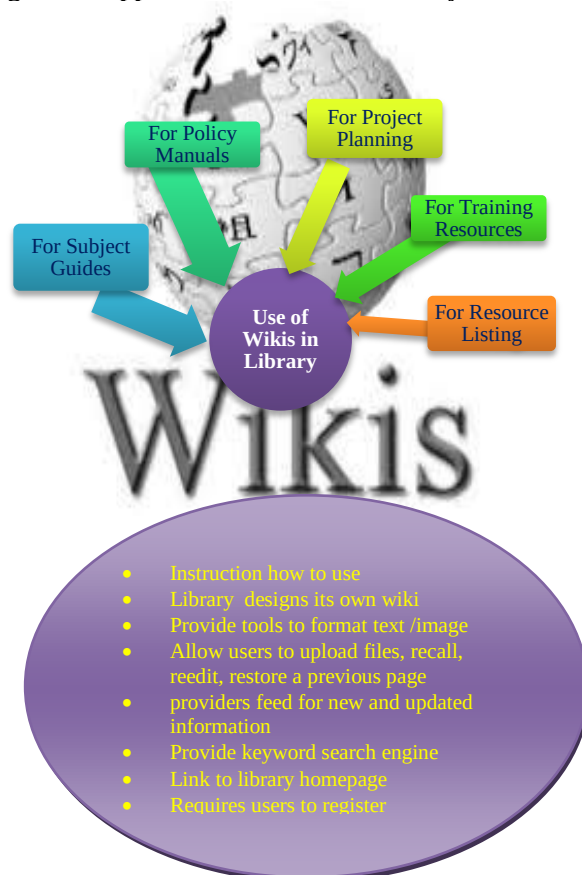
Instant Messaging: It can be used for providing reference services , advice on Library services, and guidance with resources . Adequate instructions on how to use IM should be given. Library should offers text based chat and voice chat. Instant messaging services should be available for more than 8 hours.⁶

Fig. No. 8 Application of Instant Messaging in Library 2.0 Services



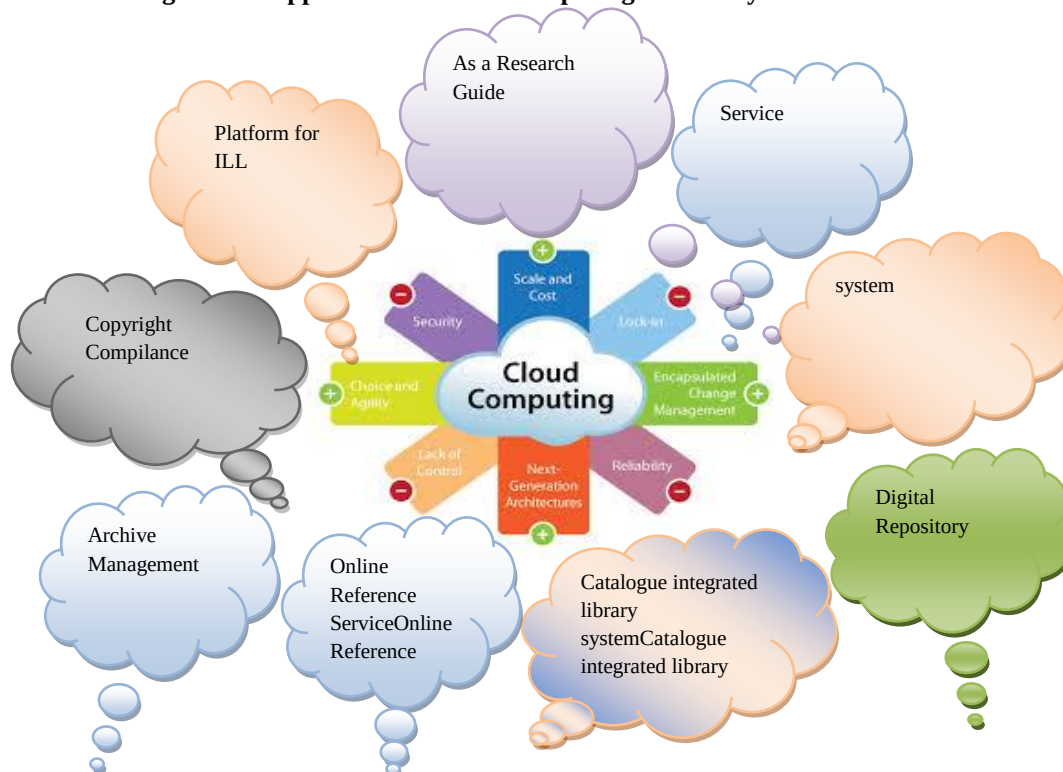
Wikis: Wikis can be used a As subject guides, for project planning, policy manuals, Resource listings and giving training of resources. Instructions should be given on how to use wikis. Library should design its own wiki and allows users to edit an existing page. Library should provide tools to format text and images, enable users to upload files, the users can recall, reedit and restore a previous page , provide RSS feeds for new and updated information and provide keyword search engine. Wikis link should be provided to library home page and allow users to register. Library should have to keep statement about copyright and content ownership

Fig. No. 9 Application of Wikis in Library 2.0 Services



Cloud Computing: It can be used for as a research guide, Online reference services, catalogue integrated library system, Digital repository, Sharing infrastructure, Digital Storage, Archive Management, Copyright Compliance, and platform for inter library Loan (ILL)

Fig. No. 10 Application of Cloud computing in Library 2.0 Services



(Source: Blog.beldensolution.com)

VII. Conclusion

It has been observed that the converged framework would facilitate converged and improved global standard in the field of academics with a library 2.0 services being no exception. Thus on the basis of the study of the currently available web 2.0 tool used by institutes of national importance in India this framework has been proposed for possible use to develop Library 2.0 services by Libraries.

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